



***Financing Infrastructure in Africa: An Assessment of the Role  
of the African Union***

by

**Freemann Kwashirai Mhunduru**

**Student Number 2014063784**

**Submitted in partial fulfilment of the requirements for the Magister Degree  
in Governance and Political Transformation**

**Supervisor**

**Prof. Jo-Ansie van Wyk**

**Department of Governance and Political Transformation     June 2016  
University of the Free State, Bloemfontein**

## **Declaration**

I, Freemann Kwashirai Mhunduru hereby declare that this mini-dissertation completed in attainment of the Magister Degree in Governance and Political Transformation at the University of the Free State ( Bloemfontein) is my original work and has heretofore not been submitted by either myself or another individual at this or any other university. I further, declare that all reference materials used for this study have been properly acknowledged.

---

Freemann Kwashirai Mhunduru

Student Number: 2014063784

*To Scholarstic Mhunduru*

## **Acknowledgements**

This research is dedicated to my mother Scholarstic Mhunduru, whose indefatigable support and championing without which I would not have been able to accomplish this research.

I would like to acknowledge, thanking my supervisor Prof Jo-Ansie van Wyk and Dr T. Coetzee the programme director, for their extraordinary support and mentorship. Mrs Juanita Potgieter and Mrs Cathy De Lange for their assistance and guidance during the study. My father, Gratiano Mhunduru, and siblings Lydia, Luis and Tinashe, and my uncles Cuthbert and Patrick for their patience and support. Lastly, I thank God the almighty, for giving me the wisdom and strength to complete the study.

Table of Contents

<b>CHAPTER 1 .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>1</b>
<b>1.1 INTRODUCTION .....</b>	<b>1</b>
<b>1.2 RATIONALE FOR THE STUDY .....</b>	<b>2</b>
<b>1.3 LITERATURE REVIEW .....</b>	<b>3</b>
<b>1.4 RESEARCH PROBLEM AND OBJECTIVES .....</b>	<b>6</b>
1.4.1 RESEARCH PROBLEM.....	6
1.4.2 RESEARCH OBJECTIVES.....	8
<b>1.5 THEORETICAL AND ANALYTICAL APPROACH .....</b>	<b>8</b>
<b>1.6 REGIONAL INTEGRATION: TRANSFORMING INFRASTRUCTURE DEVELOPMENT .....</b>	<b>14</b>
<b>1.7 RESEARCH METHODOLOGY.....</b>	<b>16</b>
<b>1.8 SCOPE AND LIMITATIONS OF STUDY .....</b>	<b>17</b>
1.8.1 SCOPE .....	17
1.8.2 LIMITATIONS OF STUDY .....	17
<b>1.9 CONTRIBUTION OF STUDY .....</b>	<b>18</b>
<b>1.10 CHAPTER OUTLINE.....</b>	<b>19</b>
<b>1.11 CONCLUSION.....</b>	<b>20</b>
<b>CHAPTER 2 .....</b>	<b>22</b>
<b>2.1 INTRODUCTION .....</b>	<b>22</b>
<b>2.2 ECONOMIC GROWTH IN THE SSA REGION.....</b>	<b>24</b>
<b>2.3 FUNDING MODELS AND PARTNERSHIPS FOR THE FINANCING AND DEVELOPMENT OF INFRASTRUCTURE ON THE AFRICAN CONTINENT.....</b>	<b>31</b>
2.4.1 GRAND ETHIOPIAN RENAISSANCE DAM (GERD): TRANSNATIONAL INFRASTRUCTURE DEVELOPMENT CHALLENGES ON THE AFRICAN CONTINENT.....	38

2.4.2 RUSUMO FALLS HYDROELECTRIC PROJECT (RFHP): TRANSNATIONAL INFRASTRUCTURE DEVELOPMENT FOSTERING COOPERATION AND ECONOMIC INTEGRATION .....	40
<b>2.6 CONCLUSION .....</b>	<b>43</b>
 <b>CHAPTER 3 .....</b>	 <b>45</b>
 <b>THE AFRICAN UNION AND INFRASTRUCTURE DEVELOPMENT IN AFRICA ..</b>	 <b>45</b>
 <b>3.1 INTRODUCTION .....</b>	 <b>45</b>
<b>3.2 AU HISTORY AND ORIGINS.....</b>	<b>47</b>
3.2.1 PAN-AFRICAN MOVEMENT (PAP).....	47
3.2.2 CREATION OF THE AU .....	48
3.2.3 THE ADVENT AND VISION OF THE AU.....	51
<b>3.3 AU ORGANS .....</b>	<b>52</b>
3.3.1 THE AU ASSEMBLY.....	54
3.3.2 AU EXECUTIVE COUNCIL.....	56
3.3.3 NEPAD.....	58
3.3.4 THE AU`S FINANCIAL INSTITUTIONS .....	62
3.3.5 AfDB .....	63
3.3.6 AU COMMISSION .....	67
<b>3.4 AU INFRASTRUCTURE DEVELOPMENT POLICIES, PROGRAMMES AND INITIATIVES .....</b>	<b>70</b>
3.4.1 AU/NEPAD AFRICAN ACTION PLAN (AAP) 2010-2015 .....	70
3.4.2 NEPAD'S SHORT-TERM ACTION PLAN.....	71
3.4.3 THE NEPAD INFRASTRUCTURE PROJECT PREPARATION FACILITY (IPPF) .....	71
3.4.4 PROGRAMME FOR INFRASTRUCTURE DEVELOPMENT IN AFRICA (PIDA).....	72
3.4.5 THE INFRASTRUCTURE STRATEGIC ACTION PLAN .....	73
3.4.6 THE NEPAD SPATIAL DEVELOPMENT PROGRAMME (SPD).....	73
3.4.7 PRESIDENTIAL INFRASTRUCTURE CHAMPION INITIATIVE (PICI) .....	74
<b>3.6 CONCLUSION .....</b>	<b>74</b>
 <b>CHAPTER 4 .....</b>	 <b>75</b>

## **ASSESSMENT OF THE AU'S ROLE IN INFRASTRUCTURE DEVELOPMENT ... 75**

<b>4.2 INFRASTRUCTURE PRACTICES .....</b>	<b>76</b>
<b>4.3 PROJECT SELECTION.....</b>	<b>82</b>
4.3.1 PUBLIC SECTOR FUNDING OF INFRASTRUCTURE .....	86
4.3.2 REGULATION ALLOWING SUITABLE RISK ADJUSTED RETURNS FOR PRIVATE INVESTMENT.....	91
4.3.3 EFFECTIVE PPP FRAMEWORK.....	94
4.3.4 FINANCIAL FRAMEWORK SUPPORTING DOMESTIC AND FOREIGN FINANCIAL FLOWS INTO INFRASTRUCTURE .....	98
4.3.5 ATTRACTIVE OVERALL INVESTMENT CLIMATE .....	103
<b>4.4 OPTIMISED USE OF EXISTING INFRASTRUCTURE .....</b>	<b>106</b>
4.4.1 DEMAND MANAGEMENT.....	106
4.4.2 INCREASED ECONOMIC UTILISATION OF ASSETS .....	108
4.4.3 TOTAL COST OF OWNERSHIP APPROACH TO MAINTENANCE .....	110
<b>4.5 STREAMLINING INFRASTRUCTURE DELIVERY IN SSA .....</b>	<b>111</b>
4.5.1 STRINGENT DELIVERY PROCESS.....	111
4.5.2 BEST-PRACTICE CAPEX OPTIMISATION AND ADVANCED CONTRACTOR MANAGEMENT .....	112
4.5.3 SYNERGIES CAPTURED ACROSS PROJECTS .....	114
<b>4.6 STRONG INFRASTRUCTURE GOVERNANCE AND CAPABILITIES .....</b>	<b>114</b>
4.6.1 ROBUST INSTITUTIONS AND PROCESSES FOR COMBATING CORRUPTION.....	114
4.6.2 STRONG GOVERNANCE FRAMEWORK .....	117
4.6.3 MECHANISMS TO FOSTER A COLLABORATIVE ENVIRONMENT BETWEEN INVOLVED PARTIES.....	119
4.6.4 ROBUST INFRASTRUCTURE DATA AND STRONG CAPABILITIES .....	120
<b>4.7 CONCLUSION .....</b>	<b>120</b>
<b>CHAPTER 5 .....</b>	<b>122</b>
<b>FINDINGS, CONCLUSION AND RECOMMENDATIONS.....</b>	<b>122</b>

<b>5.1 INTRODUCTION .....</b>	<b>122</b>
<b>5.2 RATIONALE FOR, RESEARCH QUESTION AND AIM OF STUDY .....</b>	<b>123</b>
<b>5.3 METHODOLOGY AND ANALYTICAL FRAMEWORK OF STUDY.....</b>	<b>124</b>
<b>5.4 FINDINGS OF STUDY .....</b>	<b>125</b>
<b>5.5 IMPLICATIONS OF FINDINGS OF STUDY.....</b>	<b>126</b>
<b>5.6 CONCLUSION OF STUDY.....</b>	<b>127</b>
<b>5.7 RECOMMENDATIONS FOR FUTURE RESEARCH .....</b>	<b>129</b>
<b>5.8 CONCLUSION.....</b>	<b>130</b>
<b>BIBLIOGRAPHY .....</b>	<b>131</b>



## **List of Abbreviations and Acronyms**

AAP	Africa Action Plan
ACB	African Central Bank
AEF	Access to Energy Fund
AfDB	African Development Bank
ADF	African Development Forum
AGOA	African Growth and Opportunity Act
AIB	African Investment Bank
AICD	African Infrastructure Country Diagnostics
AMF	African Monetary Fund
APSA	African Peace and Security Architecture
APRM	African Peer Review Mechanism
ARII	African Regional Integration Index
AU	African Union
AUC	African Union Commission
CAADP	Comprehensive Africa Agriculture Development Programme
CFTA	Continental Free Trade Area
CFA	Chartered Financial Analyst
CFA	Cooperative Framework Agreement
COMESA	Common Market for Eastern and Southern Africa
CSIR	Council for Scientific and Industrial Research
CSP	Country Strategy Papers
DBSA	Development Bank of Southern Africa
DFI	Development Finance Institutions
ECOWAS	Economic Community of West African States

ECOSOC	United Nations Economic and Social Council
EU	European Union
FDI	Foreign Direct Investment
GERD	Grand Ethiopian Renaissance Dam
GMS	Greater Mekong Sub-Region
HIPC	Highly-Indebted Poor Countries
ICA	Infrastructure Consortium of Africa
ICT	Information and Communications Technology
IDF	Infrastructure Development Fund
IEA	International Energy Agency
IFI	International Financial Institutions
ISAP	Infrastructure Strategic Action Plan
IPPF	Infrastructure Project Preparation Facility
MDG	Millennium Development Goal
MIGA	Multilateral Investment Guarantee Agency
MNC	Multi National Cooperation
NAFTA	North America Free Trade Area
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NEPAD	New Partnership for Africa`s Development
NDB	Netherland`s Development Bank
NTF	Nigeria Trust Fund
ODA	Official Development Assistance
ODF	Official Development Finance
OECD	Organisation of Economic Co-operation and Development
PAP	(NEPAD`s) Priority Action Plan

PAP	Pan-African Parliament
PICI	Presidential Infrastructure Champion Initiative
PIDA	Programme for Infrastructure Development in Africa
PIDG	Private Infrastructure Development Group
QE	Quantitative Easing
REC	Regional Economic Community
RFHP	Rusumo Falls Hydroelectric Project
SADC	Southern African Development Community
SDG	Sustainable Development Goals
SDP	Spatial Development Plan
STAP	NEPAD`s Short Term Action Plan
UN	United Nations
UNECA	United Nations Economic Commission for Africa
UNDP	United Nations Development Programme
UNICEF	United Nations Children Fund
US\$	United States Dollar
WAPP	West Africa Power Pool
WEF	World Economic Forum
WHO	World Health Organisation
PE	Private Equity

## List of Figures

Figure 1.2.1 International Perspective on the Competitiveness of Africa`s Infrastructure.....	3
Figure 1.3.1 Intra-African trade levels.....	5
Figure 1.3 Africa`s Infrastructure Investment Needs.....	7
Figure 2.1.1 Underlying causes of Africa`s Infrastructure Crisis .....	23
Figure 2.2.1 Infrastructure Access in SSA .....	25
Figure 2.2.2 Ease of travel within Africa compared to other regions.....	27
Figure 2.2.2 Rural access to water and sanitation in SSA .....	30
Figure 2.3.1 Main Investors in Africa`s Infrastructure.....	32
Figure 2.3.2 Private equity investment in Africa.....	33
Figure 2.3.3 Infrastructure Projects Structuring .....	36
Box 2.3.4 Risk Mitigation Value in Infrastructure in SSA.....	37
Figure 2.4.2.1 Rusumo Falls along the Kagera River on the border between Tanzania and Rwanda.....	41
Figure 3.2.2.1 Initiatives and Progresses undertaken by African countries for the establishment of the AU.....	50
Figure 3.3.1 AU Organs .....	53
Figure 3.3.3.1 The link between NEPAD and the AU.....	59
Figure 3.3.5.1 Corruption Perception Index .....	65
Figure 3.3.6.1 AU Commission Structure.....	68
Figure 3.4.4.1 Total capital cost of PIDA`s PAP by sector and region: US\$67.9 billion through 2020.....	72
Figure 4.2.1 Best Practices Framework for Transnational Infrastructure Development in Africa.....	77
Figure 4.3.1.1 National Budget Allocation to Infrastructure in SSA in 2013 (% of GDP).....	88
Figure 4.3.1.2 Sub-Saharan Africa Infrastructure Stock Vs other Low Income Countries .....	90
Figure 4.3.2.1 Infrastructure Investor Intentions by Region .....	92
Figure 4.3.2.2 Institutional Investment in Infrastructure by Region .....	93

Figure 4.3.3.1 Regional PPP activity in infrastructure projects (2013) .....	96
Figure 4.3.4.1 Sovereign Debt Rating and Maturity of Public Institutions in Africa	100
Figure 4.3.4.2 FDI returns: A comparison between Africa and other developing regions .....	102
Figure 4.3.5.1 Ease of Doing Business in Africa .....	105
Figure 4.6.1.1 Institutional Progress across Sectors in Sub-Saharan Africa.....	116
Figure 4.6.1.2 Africa`s performance in regional comparison.....	117

## **Chapter 1**

### **Introduction**

#### **1.1 Introduction**

Africa is ranked least, globally, in terms of access to infrastructure services such as clean water, transport, energy and telecommunications (World Economic Forum 2014: 38); contributing to the continent's under-development. The Organisation of Economic Co-operation and Development (OECD) (2012: 5), amongst others, contends that infrastructure development is critical for Africa's economic growth and poverty reduction. African economies, over the past decade, have grown at an average rate of over 4% but the key to further growth is infrastructure investment (Foster and Briceño-Garmendia 2010: 44). Most African governments were Highly-Indebted Poor Countries (HIPC) with the bulk of government revenues devoted to debt service. This status was one of the factors limiting investment in infrastructure. The improving balance sheets of most African countries, resulting from the write-off of their official debts, has created a new opportunity to raise the level of infrastructural investment to match the requirements for sustainable economic growth and achievement of some Sustainable Development Goals (SDG) (formerly Millennium Development Goals (MDG)). However, the reduction in cash flows required for servicing the debt overhang is offset by a reduction in direct resource transfers from donor governments and multilateral institutions. This implies that the infrastructure-financing gap cannot be closed without harnessing additional sources of finance. Africa is pivoting infrastructure finance toward the African Union (AU), through its financial institutions such as the African Central Bank (ACB), the African Investment Bank (AIB), the African Monetary Fund (AMF), African Development

Bank (AfDB) and the AU's Presidential Infrastructure Champion Initiative (PICl) (OECD 2011a: 4).

There are a myriad reasons why infrastructure is inadequate, across Sub-Saharan Africa (SSA), chief among them is funding. An additional US\$90 billion per year is required for infrastructure projects on the continent. Infrastructure shortages are cutting African growth by an estimated two percentage points annually. Infrastructure shortages have also hampered Africa's ability to meet its SDGs (The economist 22 January 2015). Africa has the highest proportion of people living in poverty, those living on under US\$1.25 a day, and according to the World Bank, Africa is the only region unlikely to achieve MDG which is 50% poverty reduction by the end of 2015 (UN 2014:09).

This study introducing investment policies in SSA infrastructure, paves the way for the exploration of AU-led strategies and practices, which can be instituted to improve infrastructure delivery in the pursuit of the AU's objectives. The assessment examines and seeks an optimum confluence and attempts to proffer solutions within the contexts of infrastructure investment, the African landscape and the AU and its mandates.

## **1.2 Rationale for the Study**

According to Foster and Briceño-Garmendia (2012) Africa lags behind other regions in terms of infrastructure access (see Figure 1.2.1 below). Infrastructure is vital and integral in the economic transformation and integration of the African continent. The AU (2014: 10) states that the AU was created through the adoption, of the Sirte Declaration in 1999 recognising that the fragmented nature of most African countries limit their ability to remedy their economic and political challenges severely. This study assesses the efforts and capabilities of the AU, as a governance system, to transform infrastructure finance and delivery for the African people.

**Figure 1.2.1 International Perspective on the Competitiveness of Africa`s Infrastructure**

Normalized units	African low-income countries	Other low-income countries	African middle-income countries	Other middle-income countries
Paved-road density	34	134	284	461
Total road density	150	29	381	106
Main-line density	9	38	142	252
Mobile density	48	55	277	557
Internet density	2	29	8.2	235
Generation capacity	39	326	293	648
Electricity coverage	14	41	37	88
Improved water	61	72	82	91
Improved sanitation	34	53	53	82

*Source: Foster and Briceño-Garmendia (2012)*

### 1.3 Literature Review

Gibb (2009: 718) notes that the theoretical debate on regionalism has neglected Africa. Furthermore, he noted that integration or regionalisation, underpinned by Pan-African development policies, is integral to the African development strategy. He also observed that the three main Eurocentric theoretical conceptions, modernist, dependency-led thinking and neoliberal Washington, each closely aligned to a development theory paradigm, to some degree, had each been proffered to explain the African integration exercise. These theories of integration in the African case focus on the mechanics of integration as opposed to the all-important reasons for and rationale for integration. Loveless and Rohrshneider



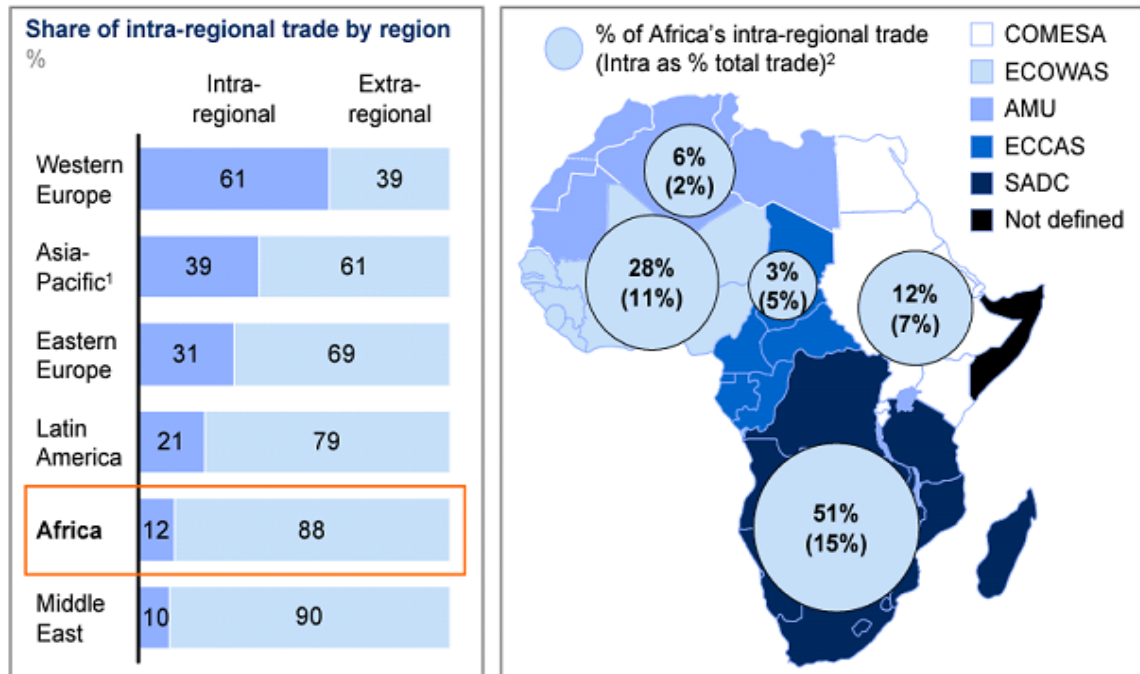
(2011: 5), concurring with Gibb (2009), mention that a notable amount of research has been done on the European Union (EU), whilst there has been limited to almost no research done on the AU, as a result of the unprecedented development in supranational governance.

The Mckinsey Global Institute (MGI) (2013: 7) recognises that infrastructure governance systems need to be upgraded in order to capture potential savings. Proper alignment to long-term priorities of public infrastructure investment and development drives economic growth. It noted that for every US\$ invested in public infrastructure the Gross Domestic Product (GDP) could rise by approximately US\$ 0.05 to US\$ 0.25. Separation of political and technical responsibilities, greater co-ordination between various infrastructure authorities, asset classes and socio-economic goals, clear distinction of the involvement of the public and private sector and reliable data and long-term planning as bases for infrastructure projects are some of the tenants that should be delivered by any infrastructure governance system for it to be effective. The research evaluates to what extent the AU governance system has impacted on the practices in infrastructure development and finance on the continent based on the four tenants mentioned above.

Alemu (2013: 35) contends that both regional integration and infrastructure development can be measured by the level of intra-regional trade. In his study on the governance infrastructure on the African continent and trade and levels of integration he found that there are wide disparities across the continent, some of which have resulted in the marginalisation of some nations that are in the AU. Figure 1.3.1 illustrates the levels of intra-African trade. The importance of this information, Figure 1.3.1, cannot be understated because trade data is widely accepted as a useful measure of the level of sophistication of trading partners' economies and their underlying infrastructure reflects desired levels of co-operation and the friendliness of their policy.

**Figure 1.3.1 Intra-African trade levels**

**Intra-African trade remains low compared with other regions**



1 Figures have been adjusted to remove the impact of Chinese re-exports through Hong Kong.  
 2 Common Market for Eastern and Southern Africa (COMESA); The Economic Community of West African States (ECOWAS); Arab Maghreb Union (AMU); Economic Community of Central African States (ECCAS); Southern African Development Community (SADC)

Source: Mckinsey Global Institute (2013)

Welz (2014: 4) postulated that the AU's aspirations of political, economic and social integration on the continent are hampered by four main challenges. He observed that the main impediments of the AU's success were, the lack of capacity of member states, unwillingness to surrender sovereignty, national leaders' reluctance to cede power and greater importance of regional economic communities compared to the AU. The researcher analyses the relationship between member states and the AU, determining the degree to which the union has been successful in transforming transnational infrastructure delivery on the African continent.

The World Economic Forum (WEF) and the Boston Consulting Group (BCG) (2014: 4) contend that transnational infrastructure is the backbone of regional

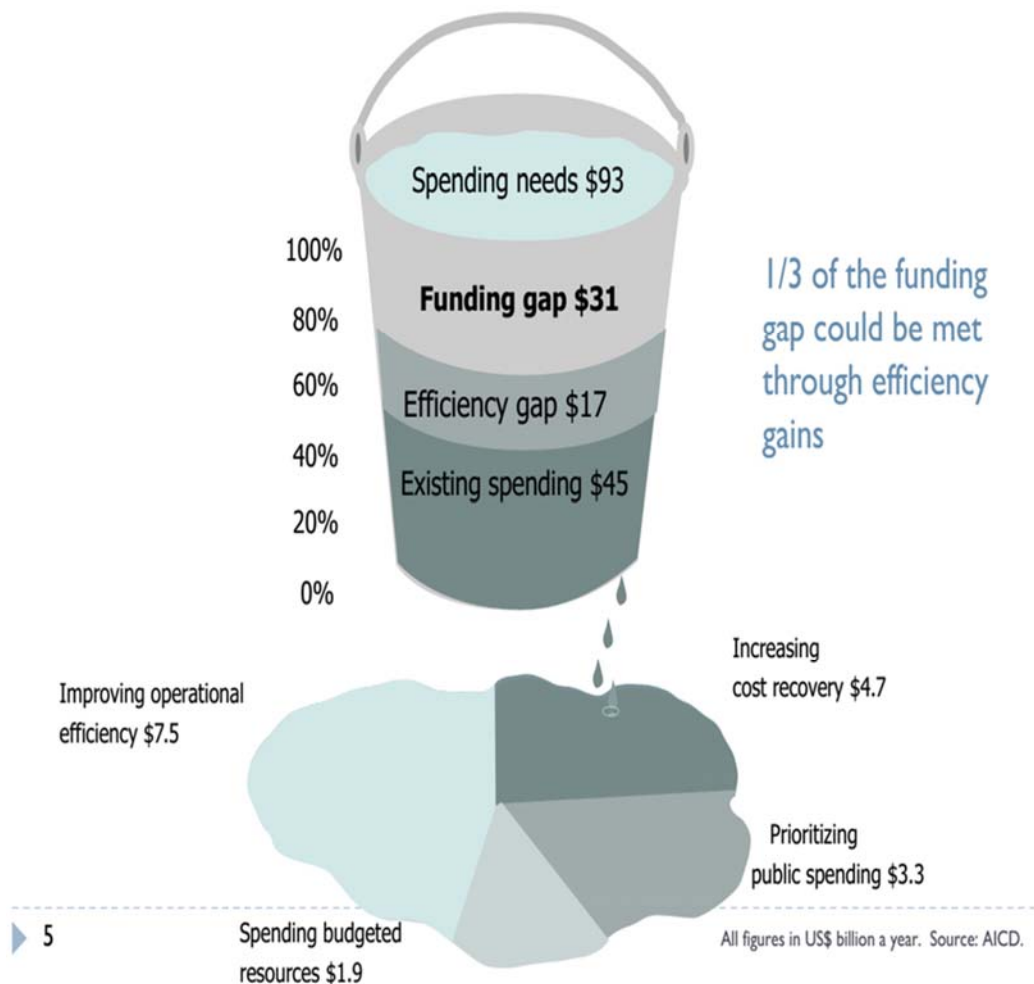
integration on the African continent. Linking up production clusters in different countries, facilitating free movement of services, goods and people, political stability and opening up regional markets are some of the reasons why political leadership in Africa share regional integration as a common goal. The Priority Action Plan of the Programme for Infrastructure Development in Africa (PIDA PAP), is an example of a transnational infrastructure programme; it encompasses 51 programmes of regional importance in the transport, water, energy, and information and communications technology (ICT) sectors, with an investment need of US\$ 68 billion(AU 2014: 13). The research evaluates how PIDA PAP and other infrastructure initiatives on the continent have and or are being implemented as an assessment of the AU.

#### **1.4 Research problem and objectives**

##### **1.4.1 Research problem**

It is argued that a significant part of the growth differential between Africa and the rest of the world (high growth countries) is traceable to differences in the availability and effective use of infrastructure. Infrastructure development and access is critical in turning around economic fortunes on the continent and ensuring sustainable development within the SSA. The problem manifests itself in Africa through poverty with the continent contributing the most in the world in terms of its population living in poverty. The poor state of infrastructure and poverty are mainly attributed to under-achieving economies resulting from corruption and mismanagement of resources. Governments lack the capacity to finance the necessary infrastructure but have been the sole provider of infrastructure for decades, hence the shortages of infrastructure on the continent.

**Figure 1.3 Africa's Infrastructure Investment Needs**



Source: World Bank (2014)

The research explores the possibility of the AU being a feasible partner with governments in order for them to provide the necessary infrastructure. There is a significant funding gap to fulfil the continent's infrastructure needs. Figure 1.3 illustrates the funding gap, which cannot be met by current official sources of funding alone. In particular, the proportion of official development finance (ODF) in comparison to total infrastructure spending is modest, with a reduced likelihood of further increases due to the tightening of budgets in countries that typically provide this form of assistance. Private investment, although on the rise

has had limited impact due to structural issues inherent in doing business on the continent, specifically in infrastructure. The AfDB et al., (2014: 28) contend that saving rates, though growing, are still significantly inadequate to finance infrastructure and industrialisation on the continent. This study assesses AU initiatives such as setting up funds, offering guarantees and brokering finance in its attempt to increase funding for infrastructure projects.

#### **1.4.2 Research objectives**

This assessment of the AU in the context of infrastructure provision will provide a systematic overview of the literature on the AU as a supranational power or governance institution. The AU ambitions are beyond the economic realm; this is clear from the manner the AU has been structured and its mandate according to its constitutive act. Accordingly, this review looks at the institutional design of the AU and performance in terms of increasing provision of quality infrastructure services and access to these services.

Against the aforesaid, the study aims to:

1. Determine the level of infrastructure development and finance in Africa;
2. Analyse the role of the AU in developing and financing the continent's infrastructure.
3. Assess AU-led initiatives to develop transnational infrastructure as a barometer for its successes, noting that infrastructure is integral in increasing intra-regional trade.
4. Propose solutions to solve the continent's infrastructure financial needs.

#### **1.5 Theoretical and analytical approach**

Ernest B Haas (1958) attempted to theorise the European integration movement and unwittingly founded neo-functionalism. Neo-functionalism explains the

formation of a supranational power, such as the AU, through a step-by-step process. The fundamental assertion of this theory of integration is that economic integration would evolve automatically into a political union due to 'spill-over'. Gibb (2009:718) contends that the AU is modelled around Haas' neo-functional theory of integration. According to Haas (1958) the differences exhibited by AU members are aligned to neo-functionalism, which contends that at the inception of a supranational power such as the AU, 'creative compromises' will be experienced but the realisation that certain common interests cannot be attained any other way will prevail. It is clear that the AU concurs with individual member states at the moment but as Haas (1958) postulated the circle of supranational sovereignty is widening subjecting member states to the AU in areas such as peacekeeping and environmental control and management among others.

Pursuant to the aforesaid, the study adopts the neo-functional theory of integration as a best fit in the explanation of the development of the AU. The history of the theory, why it has been adopted and the subsequent advantages and disadvantages for its use in this exercise are also dealt with below.

Forere (2012: 29) contends that, whilst not exhaustive, functionalism and neo-functionalism theories of integration best describe African integration. The normative framework of the Constitutive Act of the AU and the Treaty Establishing the African Economic Community (AEC) support this view. African states want to protect national sovereignty while fostering international co-operation, incrementally, through the establishment of regional organisations to promote economic development; this resonates well in the functionalism and neo-functionalism theories (Ozen 1998: 3). Ozen (1998) also found that individual member states of the African Union are reluctant to relinquish defence, diplomatic, strategic and national ideologies to the AU and this has been sighted as one of the major reasons the AU has had limited success.

It is however important to note that neo-functionalism is a best fit not a perfect fit explanation. Gibb (2009: 718) noted that integration or regionalisation,

underpinned by Pan-African development policies, was integral to the African development strategy. The three main Euro-centric theoretical conceptions - modernist, dependency-led thinking and neoliberal Washington - each closely aligned to a development theory paradigm, to some degree, could not account for African regionalism. He attributed the failure of these theories to account for African integration to the fact that they focused on the mechanics of integration as opposed to the all-important, reasons for and rationale for integration in the African case.

There are fundamental differences between the motivations and landscapes of the Euro-centric and African integration exercises. These differences limit the applicability and usefulness of the existing integration theory as it applies to Africa. For example problems such as colonial influences, extreme poverty and weak public institutions plague integration in Africa, were Europe never encountered such challenges.

Gibb (2009: 710) intimates that operationalisation of the integration policy has been dismal. Market integration modelled around Balassa's (1961) conventional analysis of economic integration on 'customs union' theory indicate the uniqueness of the African landscape. The unsustainability and contradiction of the African regionalisation can be illustrated by a case. Zambia, for example, is a member of both the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC). It is required as a member of SADC to remove tariff barriers to South Africa whilst being requested by COMESA to create a COMESA common external tariff that excludes and discriminates against South Africa. Neo-functionalism never predicted these hurdles in Europe because they never had these challenges.

The MGI (2013: 21) concurs that intra-regional trade is a useful barometer of evaluating the successes of any integration exercise (see Figure 1.2). It notes that excluding South Africa, regional trade in Africa is between 6 and 7%. The reasons for the low trade also are the same reasons that limit the accuracy of existing meta-theories, linked to a development paradigm, in their attempt to

explain African regionalisation. It is true that the lack of economic complementarity between states has affected the implementation of Pan-African development policies but there have been successes. Haas (1958) intimated that states are not monolithic; cooperation in a technical sphere such as infrastructure could pave the way for the creation of a political economy.

The existing body of work on Africa's integration is mostly confined to scholars trying to transpose theories of integration for instance in Europe, applying them to Africa. Whilst research contends that neo-functionalism best describes integration on the continent, it is also important to highlight other philosophies or principles driving the desire for Africa to be unified. Pan-Africanism as a philosophy is one of the main factors that has driven and can be used to explain African integration. People of African ancestry believe and have common interests, and this has been made important by slavery and colonisation. The desire for a supra-national authority to be established is not new, prominent African scholars and figures dating back as far back as 1867 – Duse Mohamed Ali – advocated for African unity primarily where it affected economic emancipation for the African race (Adi and Sherwood 2003: 2).

Martin (2013: 12) notes that colonially established borders are a major challenge to economic and political development in the African continent. He asserts that certain regions because of their cultural uniformity or people's shared ancestry cannot prosper if they remain separated. He refers to the Congo basin and the Malian medieval empire as examples of regions that clearly should have been one country but were partitioned into several countries. Following the Pan-Africanist theme, established by Adi and Sherwood (2003), Martin attempted to explain how different ideologies between African leaders have affected the speed and form of integration of the continent's nations. Totalitarianism, whose leading proponent was Kwame Nkrumah, advocated for quicker and greater integration in Africa in the form of supra-national authority leading towards the formation of the United States of Africa. Gradualists such as Jomo Kenyatta and Julius Nyerere prevailed in having Africa integrate along functional and technical areas



such as economics, conflict resolution, democracy and infrastructure development amongst others. It is because the integration exercise adopted and current to Africa is premised in gradualism and its principles, that the researcher believes that neo-functionalism is the integration meta-theory that best fits regionalisation efforts in Africa.

McCarthy (1995: 14) contends that African integration has its roots between the end of the 19<sup>th</sup> and 1<sup>st</sup> half of the 20<sup>th</sup> century, as Pan-Africanism emerged as solution to colonialism and racism. Between 1900-1945 many Pan-African congresses and conferences took place, though they prioritised the liberation of African nations, they identified that the most significant step in the future development of Africa was the concept of a unified Africa. At the onset the integration of Africa unlike the European integration, can be viewed as premised on a political basis rather than economic cooperation. This point is crucial because it contradicts neo-functionalism noted above which will be dealt with in greater detail below. It is true that a look at the history of the Organisation of African Unity (OAU) and other Regional Economic Community's (RECs) indicate that Africans built or had initially designed their integration as a political one. The researcher in previous sections has shown that African nations trade more with non-AU members than amongst themselves and that restriction to movement of people affect the intra Africa movement more than inward international movement into individual member states. Furthermore, Welz (2014: 14) asserts that African integration had to be political out of necessity because African countries lack capacity to cooperate economically as most of them are donor dependent. However, the transformation of the OAU to the AU in 2002 marked an important period in how meta-theorists would view African integration. The AU created organs that were and are designed to strengthen economic cooperation and other technical spheres across the African continent.

The Neo-functionalism integration theory attempts to predict the formation of the political community from a series of technical or functional Cooperations. Neo-functionalism asserts that the formation of a supra-national authority is an

automatic end of economic integration. A supra-national community, as explained by neo-functionalism, is formed when loyalty to specific political institutions shift from the national level to a larger regional level. In this process of the neo-functionalist integration, the supra-national authority concurs, at first, with the nation-states in its circle of supra-national sovereignty and thereafter, the supra-national sovereignty will supersede national sovereignty. The process of widening mentioned above is almost automatic and is called "spill-over". Neo-functionalists accept that economic integration, in functional spill-over, would spill over to other sectors creating greater interdependence. The theory separates areas member nations would easily yield control and those member nations would find difficult to relinquish control. The areas states in a supranational governance system easily yield control are termed, low politics areas and these refer to the economy and other technical spheres, whilst areas which are hard for states to integrate are termed, high politics areas and refer to defence, foreign policy and strategy. In the African context it is difficult to say whether gradualists such as Julius Nyerere deliberately modelled African integration after neo-functionalism or if Africa is inadvertently unifying along neo-functionalistic principles.

The AU, specifically the AU Commission is the evolving supranational authority which now has crucial roles such as peace keeping in Somali and Sudan and steering fragile states through organisations such as the New Partnership for Africa's Development (NEPAD) and the AfDB. There is still some resistance by member states to yield full power and authority as seen by how the mandate to form the United States of Africa has stalled in the AU Assembly (Ozen 2008: 4). Central to how integration in Africa has been theorised is how conservatism has played a role in this exercise. Welz notes that conservatism has had a profound impact on how member states both relate to each other and to the AU.

## **1.6 Regional Integration: Transforming Infrastructure Development**

This section provides some clarification on the main concepts related to this study, namely transnational infrastructure, regional integration and supranational governance.

Jerome (1999: 31) summarises the view that a supranational power needs to lead infrastructure programs on the continent. He argues that infrastructure services have been viewed as public goods and the primary responsibility for their provision have been entrusted to government-owned 'natural monopolies'. Consequently, these sectors have become inextricably entangled with the public sector that dominates it. While the performances of government-owned providers of infrastructure vary from one country to another, their overall performance in Africa has been very poor. The sector is characterised by operational inefficiency, lack of technological innovation and poor service to consumers. In addition to these inadequacies, the provision of infrastructural services in most African countries is characterised by high prices compared with per capita incomes and long waiting time (several years in some countries) between the time of application for services and actual connection. The cost, in terms of forgone economic growth and lost opportunities for poverty reduction and environmental improvements, is high.

Against the aforesaid, the term infrastructure was coined during the Second World War to refer to a wide range of war logistics. However, overtime the terms' use has evolved. Hirschman (1958: 83) defined infrastructure as

those services without which primary, secondary and tertiary production activities cannot function. In its widest sense it includes all public services from law and order through education and public health to transportation, communication, power and water supply as well as agricultural overhead capital and drainage systems.

Mody (1997: 1) defines economic infrastructure as the facilities that provide society with the services necessary to conduct daily life and to engage in

productive activities. Jerome (1999: 1) points out that infrastructures share a number of common characteristics namely scale economies in production, consumption externalities and non-excludability. It is because of these characteristics that infrastructure planning, financing and development tend to overlap national borders thereby requiring inter-governmental co-ordination and participation. Examples include the Maputo Development Corridor, which was established to create a seamless flow of cargo for customers in South Africa, Swaziland and Mozambique, and the Manantali Dam Project along the Bafing River which supplies water and hydro-electric power to Mali, Mauritania and Senegal.

Haas (1958: 16) defines political integration as

the process whereby political actors in several distinct national settings are persuaded to shift their loyalties, expectations and political activities to a new center, whose institutions possess or demand jurisdiction over pre-existing national states. The result is a new political community, superimposed over the pre-existing ones.

By most accounts this definition seems to hold for the AU.

As indicated above, the AU is a governance system and this study seeks to assess its ability to solve Africa's, arguably, greatest challenge, infrastructure development and access, to transform its economy. Governance is a complicated and interdisciplinary concept that deals with the development and administering of public policy and affairs. Pierre and Peters (2000: 7) recognise the complexity of governance and describe it as 'notoriously slippery'. Kohler-Koch and Rittberger (2006: 35) note the difficulties and confusions in the conceptualisation of governance regardless of the decades of research on the subject. Chhotray and Stoker (2008: 3) define governance as

about the rules of collective decision making in settings where there are a plurality of actors and organisations and where no formal control system

can dictate the terms of the relationship between these actors and organisations.

Regional integration, underpinned in the Pan-African policies, has always been an integral part of the African development strategy. Whilst there are many barometers that can be used to evaluate the successes of the Pan-African initiative, this study will use infrastructure development and access on the continent as the yardstick for success.

### **1.7 Research methodology**

Starr (2004: 238) notes that mixed research methods are increasing in popularity because they attempt to eradicate the shortcomings of both qualitative and quantitative research. Research methods used need to be best suited to the issues arising from the topic. This study will utilise mixed methods research because it will combine case study reviews of infrastructure projects undertaken by the AU and inter alia review budgets, key policies and programs of the AU. In addition the study will compare how the AU has evolved against neo-functionalism expectations.

Wimmer and Dominick (2000:106) premise the classification of a research study as being qualitative on the research being based on a hypothesis. The promulgation that the AU has been modelled on neo-functionalism, is in itself a hypothesis. This research study by using a variety of desktop research studies and reviewing works of previous scholars, attempts to determine to what extent the AU conforms to the work of Haas (1958). The research utilises a selection of case studies to reflect the positive and sometimes negative impact of a supranational authority in the development of infrastructure in Africa. Lindlof (1995: 57) supports the use of case reviews in qualitative interpretations and is of the view that credible and rigorous results can be yielded from intense analysis of any such case.

Thamhain (2014: 2) concurs that quantitative methods are widely preferred if economic matters are under consideration. One of the main features of this study is the generation of numerical measures to either rank or compare infrastructure availability and access as well as its financing. The study analyses cash flows, risks and reliable, quantifiable underlying economic, social and political factors. Measures to be utilised, *inter alia*, include cost-benefit analysis, budgets and budget control processes, return on investment and stress tests.

## **1.8 Scope and limitations of study**

### **1.8.1 Scope**

Strauss and Corbin (1998: 92) stress the importance of analysis through comparison. This study analyses the AU's involvement in infrastructure finance, covering the entire African continent and period up to as early as 2014. The reason for the broad scope both in geography and time is so as to produce a comprehensive analysis because infrastructure is both transnational and long term by nature.

This study focuses on all forms of infrastructure. Broadly infrastructure is used as a key economic indicator that is used to measure the quality of an economy and governance structures.

### **1.8.2 Limitations of study**

The AU recently celebrated its 50<sup>th</sup> anniversary. Whilst this might seem like a long time, Glubb (1977) analysing past empires such as Assyria, Persia, Greece and Roman *inter alia*, came to the conclusion that it takes significantly more than the AU's 50 years for the development of an effective governance system. Chronologically and theoretically it therefore means that we cannot appropriately evaluate the successes of the AU in various sectors, infrastructure included,

because sufficient time has not been allowed for it to evolve and realise its full potential. This is one of the major limitations of the study.

Gibb (2009: 718) found the existing body of work or studies on regionalisation focusing on the African continent to be at best thin. Limited sources to draw from continue to plague efforts to develop comprehensive theories of Africa's integration. The study relied on inadequate Euro-centric theories adapting it in an attempt to reflect the African landscape.

The scope of the study is broad both geographically and by time frame and as such the researcher could not cover all the areas he would have liked to. The African continent is vast and therefore it is inconceivable that the researcher evaluated all relevant infrastructure projects. Sampling techniques were employed to determine which cases to evaluate; these are not exhaustive and as such a margin of error is allowed.

Analytical techniques are based on the quantity and quality of information which forms part of inputs for those models. The quality of the outcomes is dependent on the inputs and because of limited resources the researcher cannot verify all inputs and or collect primary information which secondary sources cannot provide.

## **1.9 Contribution of study**

Olivier (2010: 17) notes that regionalisation was taunted as the panacea to most challenges facing the African continent. Since decolonisation a plethora of regional institutions, programs and policies have been enacted but have not yielded greater integration and economic benefit according to him. Gibb (2009: 718) intimated that limited theoretical and analytical research on the development of the AU compared to various theories of integration existed. This study sought to contribute to the understanding of how the AU, as a supranational power has

evolved taking into account dynamics specific to Africa such as its demographics, cultural, geographic and colonial influences.

Deacon et al., (1999: 13) highlight that research enhances understanding of matter, matters, how matter or matters evolve and one's ability to change them. The World Economic Forum (2014: 4) confirmed the importance of infrastructure by listing it as the second pillar of the 12 pillars for competitiveness world-wide. The study helps to aggregate the work being done in this vital sector across the continent by the AU, highlighting the successes and challenges being faced, hoping that solutions can be proffered in-order to transform the livelihoods of most across the African continent.

Gibb (2009: 718) notes that theoretical debate on regionalism has neglected Africa. This study contributes to the body of work done on the AU, specifically on how it has shaped and is shaping infrastructure development. Integration or regionalisation, underpinned by Pan-African development policies is integral to the African development strategy. This confirms the importance of this study.

### **1.10 Chapter outline**

It is envisaged that the study will consist of five chapters.

#### **Chapter 1: Introduction**

This chapter introduces the general context of the study; giving reference to the AU, infrastructure in Africa and the African continent. The theoretical and analytical approach, *inter alia*, research methodology and contribution of the study is dealt with in this chapter from a neo-functionalist approach and predictions of regional integration. Within this framework the AU is assessed to determine whether economic integration has been successful or not.

#### **Chapter 2: The state of Africa's infrastructure**



This chapter outlines the prevalence, type, level and status of the continent's infrastructure. It stresses the economic realities of the continent which are tied to the fortunes of the infrastructure sector – economic growth and funding models. The chapter also provides an analysis of the different realities apparent to transnational infrastructure development.

### **Chapter 3: The African Union**

This chapter of the study addresses the origins, organs and policies of the AU, with specific reference to infrastructure development on the continent. In addition the study will test the hypothesis that the AU is modelled around neo-functionalism.

### **Chapter 4: Assessment of the AU's role in infrastructure development**

An assessment is conducted of the AU's role in infrastructure development on the continent along neo-functionalistic practices. The McKinsey Global Institute Infrastructure Diagnostic Tool (MGIIDT) is used to measure the AU's delivery of infrastructure. This assessment tool is a multi-disciplinary process that combines the use of quantitative and qualitative information to determine the current stock of infrastructure for a region and prescribes areas that require improvements.

### **Chapter 5: Findings, conclusion and recommendations**

The findings of the study are presented and analysed depicting how the AU relates to integration theories, its roles and impact on infrastructure on the continent, *inter alia*, infrastructure projects' risk mitigation and gap bridging. This section suggests recommendations for future studies.

#### **1.11 Conclusion**

Regional integration is integral to African development plans; it is not optional but a matter of survival for some states. The AU epitomises the African integration project and as such the researcher utilises it to measure the successes of the

Pan-African endeavour, in the context of infrastructure provision. There has been an evident failure to sustain investment in key potential revenue areas creating infrastructures notably in energy and in transport on the African continent. The question then arises: why in virtually all of SSA is this investment not taking place? The argument is that the key barrier is structural issues of the African landscape that prohibit project implementation and this gap can be surmounted by an effective AU.

## Chapter 2

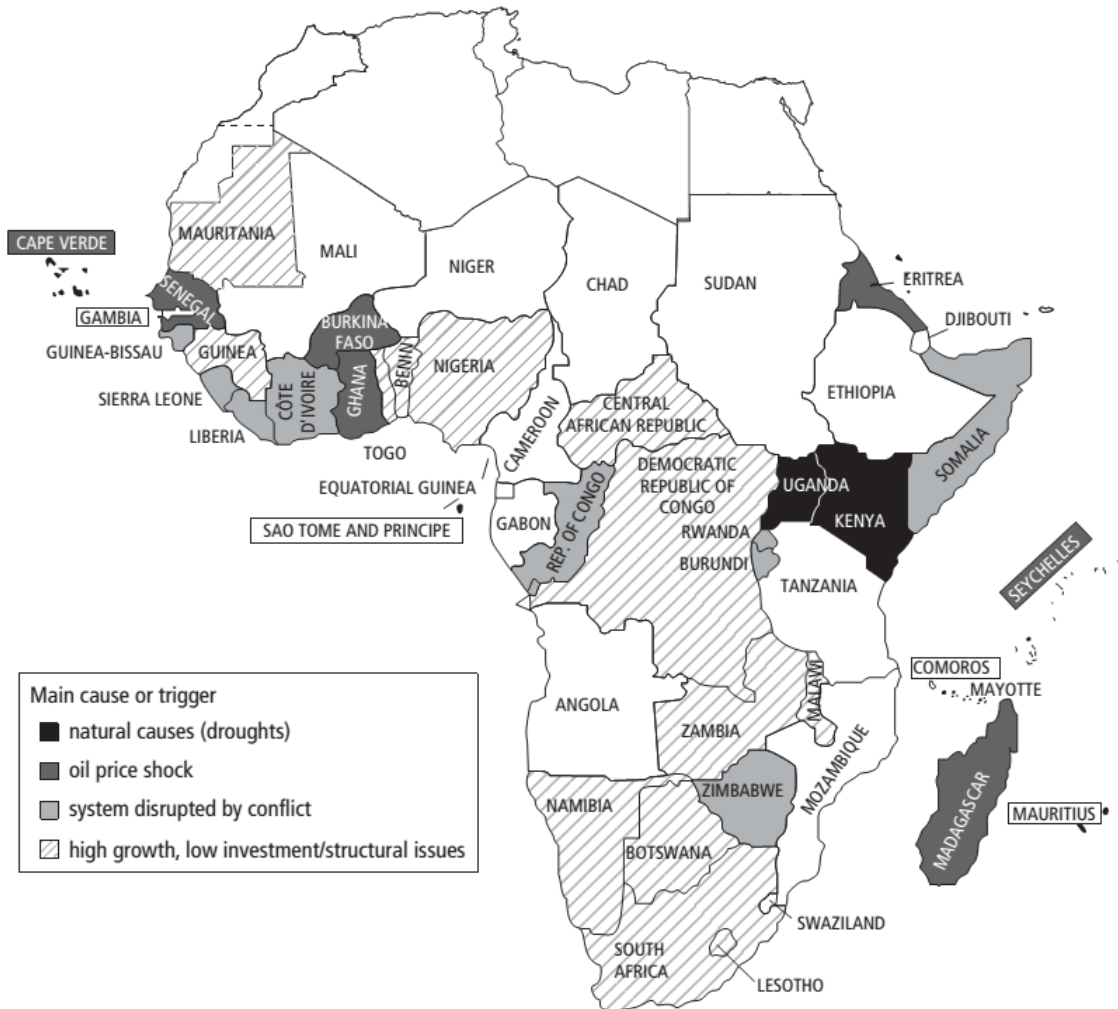
### The state of Africa's infrastructure

#### 2.1 Introduction

Infrastructure challenges vary greatly by country across the African continent. Fragile states such as Somalia, the DRC and Burundi, amongst others, face an impossible burden whilst on the other end resource rich nations such as Nigeria, Ghana and Angola still lag behind. Power generation is still Africa's greatest challenge as over 35 countries experience regular shortages with powerhouses with South Africa being no exception. It is twice as expensive to consume infrastructure services in Africa compared to anywhere else in the world (UN 2014: 12).

Broad factors deter sufficient momentum to be gained in developing infrastructure across the continent but economic geographies is one factor worth noting. There are wide disparities in the economic fortunes of neighbouring countries at times which result in misaligned goals and strategies. Stagnant household access and broken linkages best sums up the status of infrastructure in Africa. Figure 2.1.1 depicts factors hampering infrastructure development by country or region (The African Development Forum (ADF) 2009: 6). The figure below places more focus on Africa's past decades' unprecedented and myriad of problems and changes, ranging from climate change and increased natural disasters, a growing gap between rich and poor, stunted social mobility, youth unemployment and dissatisfaction and conflict relating it to how it has adversely impacted infrastructure development on the continent. Governance models across the continent have been slow to evolve and deal with these unprecedented challenges, as a result infrastructure development still lags that of other regions (Alemu 2013: 39).

**Figure 2.1.1 Underlying causes of Africa`s Infrastructure Crisis**



Source: Eberhard et al., (2008)

Most types of infrastructure are important because they contribute to growth processes. This chapter focuses on the continent`s economics and welfare of its people with a specific bias towards infrastructure development. The main sections of this chapter include an analysis of growth in the SSA over the past decades, the infrastructure gap on the continent and funding models and schemes for infrastructure being employed in Africa.

## **2.2 Economic growth in the SSA Region**

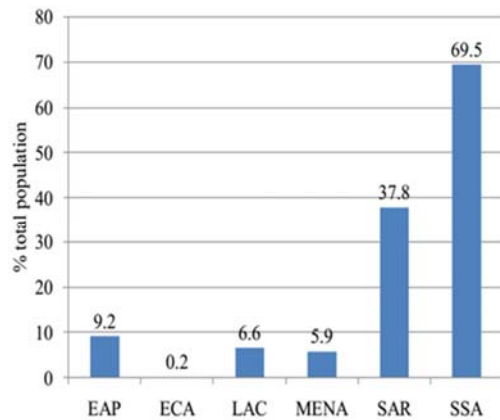
The World Bank (2013: 5) intimates that the African economies continue to grow steadily. Since 1998, GDP growth has averaged 4% annually. The consistent drivers of growth are government consumption and gross fixed investment whilst private consumption and external balance varies significantly (Economic Intelligence Unit 2012). Increased private consumption, according to the AfDB (2010), should be the cornerstone of not only infrastructure finance but all economic sectors which include manufacturing and the establishment of a robust service industry. It is however worth noting that regional factors have affected growth for parts of 2014-2015, notably the impact of the unfolding Arab Spring Uprisings and the Ebola epidemic in West Africa. Due to a recent Ebola outbreak, growth rates for Guinea, for example, were reduced from 4.5% to 2.4%, Liberia 5.9% to 2.5% and Sierra Leone 11.3% to 8.0%. Elsewhere, the plunge in oil and other commodity prices is likely to have mixed impacts, negatively on oil and resource dependant economies such as Nigeria, Angola and Libya whilst the reduced oil prices offer some relief to the majority of oil consuming African countries. GDP growth on the continent is driven mainly by resource exploration and exports primarily to China. The African economy is more vulnerable to commodity price movements than any other region.

Sustaining the aforesaid growth is critical. In addition to the cyclical factors discussed above affecting or having the potential to affect, long time challenges such as weak public administration systems, infrastructure shortage and climate disasters plague the African continent. Regarding infrastructure as an impediment to growth, the MGI (2010: 25) contends that growth is severely hampered by problems with road, rail, and port communications and by inadequate electricity supplies. It notes that urban growth and development is also being severely restricted by lack of water and sewerage. Figure 1.1 illustrates how Africa compares to other regions in terms of infrastructure access. Investment in all of these infrastructures is crucial in sustaining growth in the

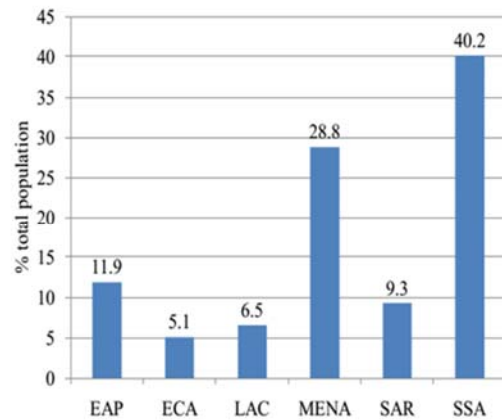
SSA. The limited infrastructure investment in the region if not addressed urgently will continue to constrain further growth.

**Figure 2.2.1 Infrastructure Access in SSA**

Share of population without access to electricity      Share of population without access to improved wat



Source: IEA World Energy Outlook 2010



Source: WHO and UNICEF: Progress on Sanitation and Drinking Water 2010

Source: The Mckinsey Global Institute (2010)

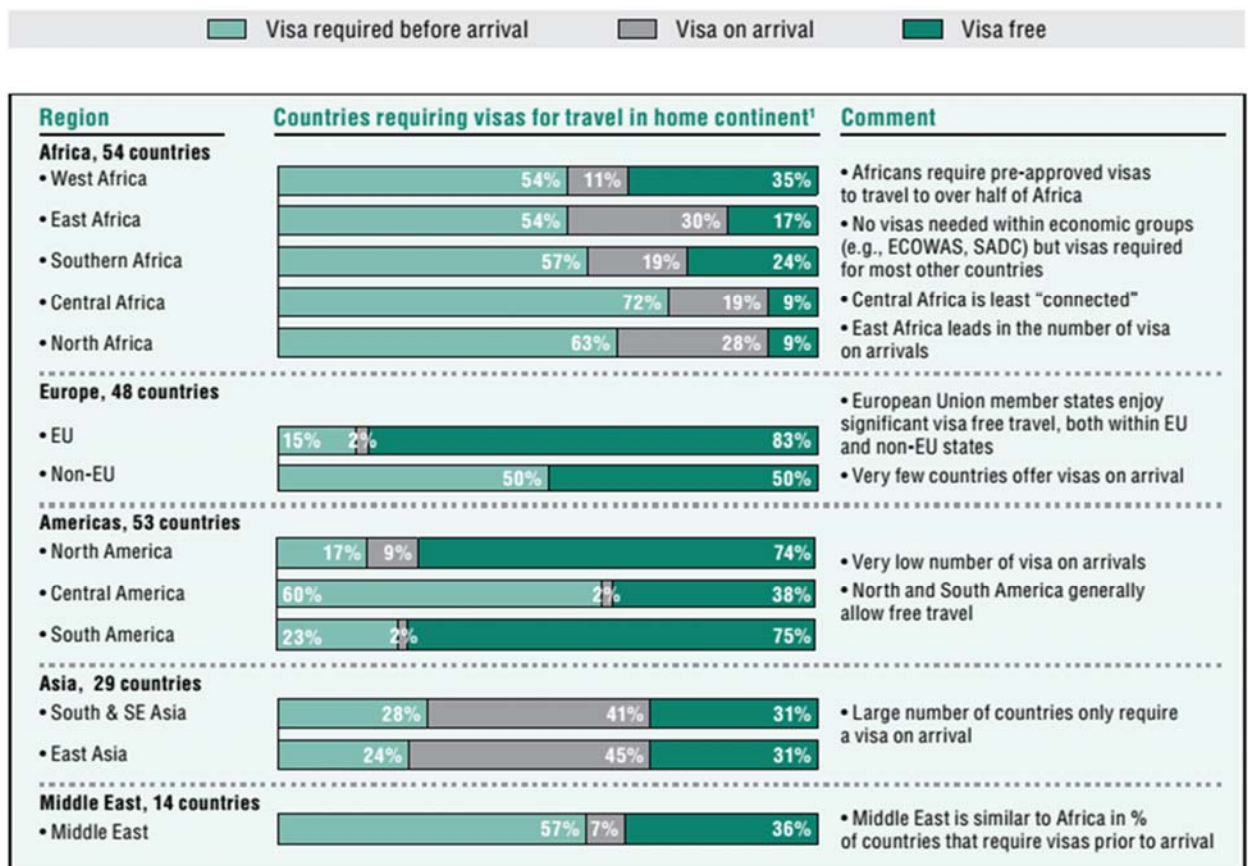
The Africa Pulse Report (2013: 28) details the quality of the growth currently being experienced in the SSA. It notes that better governance of mineral revenues, high agricultural prices, demographic dividend and rapid urbanisation are some of the factors improving the quality of growth. Separately, the UN and the OECD (2010: 10) assessed the quality of growth achieved by African economies over the past decade, proposing a number of key areas that needed to be addressed if Africa were to attain and sustain desired growth rates. The most crucial pillar for sustainable development or growth, *inter alia*, identified was infrastructure development and accessibility; this was followed by other enabling environment issues such as coherent investment, trade and industrial policy, good governance and absence of conflict. These issues are critical in that they are transnational in nature; the UN is increasingly encouraging the AU to play an active role in conflict management and other governance areas on the continent.

The African Growth and Opportunity Act (AGOA) is a United States of America (USA) initiative undertaken by the United States government to encourage trade with Africa and American businesses to explore trade opportunities within Africa. The initiative's aims are to facilitate economic activities between Africa and the USA private sector. It is worth noting that growth and diversification on the African continent will need to be driven by the private sector, which is why AGOA is crucial. Throughout history the free market has flourished because it has brought rewards to innovators and services to the populace. The AGOA recognises that. The UN, the OECD and the AfDB continually look at the levels of contribution that the private sector makes towards economic growth in Africa, assessing the extent of private sector involvement within key sectors of the economy such as Infrastructure, health and education among others. Infrastructure development and finance, as well as other crucial services such as energy, health and education is dominated by governments. Government monopolies' involvement in such areas lower innovation which in turn creates a difference between potential and realised growth rates in Africa (UN 2010: 15).

Economic growth and prosperity is heavily dependent on quick and free movement of goods and people. Efficient and speedy movement of people and goods rely on infrastructure development and elimination of cumbersome bureaucracies at borders and various other check points. It is worth noting that the AU has two primary goals which are bettering lives for Africans and achieving political unity. The realities of African economies, their infrastructure and policies seem to prevent them from attaining both of the AU goals. For example, the MGI (2013: 44) identified that whilst regional integration was the cornerstone of the AU, restrictions on free movement were highest within Africa, particularly in central Africa. The MGI (2013) commissioned study concluded that Europeans and Americans had greater access to African countries than fellow Africans. This is noted to be reducing tourism and trade and investment putting pressure on growth rates. Intra-Africa trade is very low relative to trade with other regions. This is crucial why? Because it reflects on the poor state of infrastructure in the SSA region and failures to implement AU policies designed not only to

encourage free movement of goods and people but ultimately yield a United States of Africa. Figures 2.2.2, illustrates the ease to travel within Africa and other regions and comparisons of Intra-Africa to that of other regions. The figure shows that we are significantly far away from achieving the vision of the AU to unify Africa and to have the bulk of trade being amongst ourselves.

**Figure 2.2.2 Ease of travel within Africa compared to other regions**



Source: McKinsey & Company (2013)

Beck et al., (2011: 38) contend that Africa ranks last among the developing regions with access to such infrastructure services as water, transport, energy, and telecommunications. Not surprisingly, there is no shortage of infrastructure



investment opportunities in Africa. The financial system in Africa, according to Beck et al., (2011: 38), is the major culprit; there are limited bond markets across the African continent and those that exist are relatively illiquid. Bond issues are widely issued across the world to finance major national or regional infrastructure and this is a disadvantage for African countries as they also cannot access Eurobond markets and when they can the yields on these issues are prohibitively high. The levels of access to loans and penetration of Private Equity (PE) are the least in Africa and this compounds the challenges faced in infrastructure development. Africa is also legislating its way into bad infrastructure because requirements for private companies and individuals to access funding are the most rigorous in Africa. In Africa, the shortfall of investment in infrastructure facilities – defined to include public utilities such as telecommunications, power, transportation and water and sanitation – is estimated by *The Economist* (2015) to be US\$ 90 billion per year. Infrastructure is consistently cited as one of the key constraints to productivity in Africa.

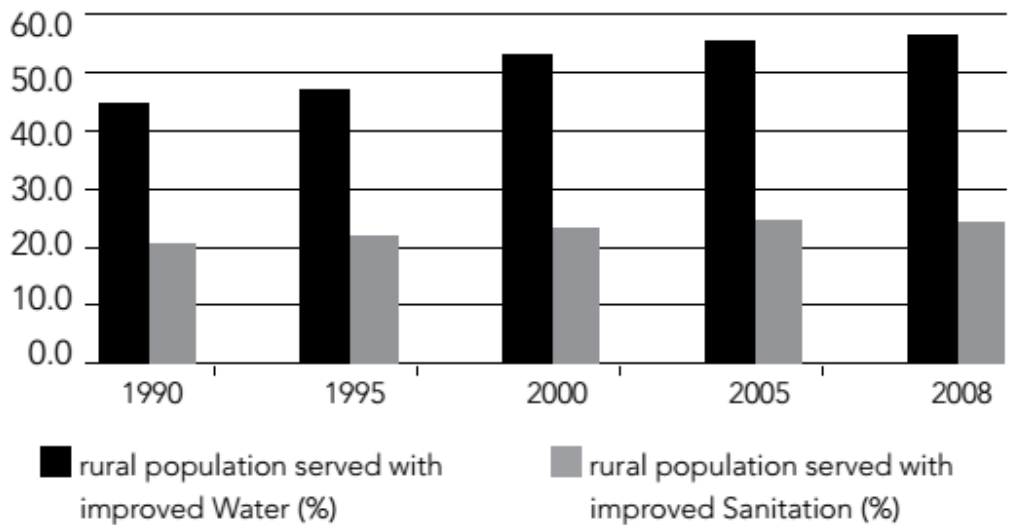
The OECD (2011b: 48) concurs that infrastructure development is critical for Africa's economic growth and poverty reduction. Yet there is a significant funding gap to fulfil the continent's infrastructure needs, which cannot be met by current official sources of funding alone. In particular, the proportion of ODF in total infrastructure spending is modest, with a reduced likelihood of further increases in a context of tightening budgets in countries that provide assistance. Private investment, on the contrary, offers some promising way to close the funding gap..

Private investment, taunted to be the panacea to the funding gap for infrastructure projects in SSA, faces a number of obstacles. The findings of a survey conducted by the OECD DAC (2013) unearthed obstacles to private investment, such as political instability, weak public administration, unreliable legal frameworks, corruption, low capacity of project promoters, bankability of projects, lack of long-term financing, and insufficient resources for project preparation. Particularly for fragile states, some development agencies mentioned that peace and security are prerequisites for improving the enabling

environment. The AU through the AfDB and NEPAD is encouraging private sector investment in infrastructure via a Public Private Partnership (PPP), for instance, in the Lake Turkana Wind Power Project in Kenya. AU institutions such as the Peace and Security Council, the Pan-African Parliament and the Advisory Board on Corruption are also trying to bring about the necessary regional stability and strengthen national public institutions to encourage FDI as well (OECD 2012: 10).

The African Monitor (2012: 16) argues that whilst overall infrastructure access across the African continent is lagging, there is a need to separate rural and urban infrastructure access. It contends that, in 2008, 415 million people resided in rural areas, this making 55% of the African population rural. Programmes such as the Programme for Infrastructure Development in Africa (PIDA) upon which the transformation of African infrastructure is underpinned do not expressly articulate policy on rural infrastructure despite the African Infrastructure Country Diagnostics (AICD) recommending a clear investment scheme for rural Africa. The infrastructure gap is severe in rural areas, Figure 2.2.2 details rural access to water and sanitation, all season road access is 34% compared to the global rate which is 65%. 585 million do not have access to reliable energy supply in Africa, the energy access rate in rural Africa is 14% compared to 86% and 73% in Asia and Latin America respectively.

**Figure 2.2.2 Rural access to water and sanitation in SSA**



*Source: WHO/UNICEF (2012)*

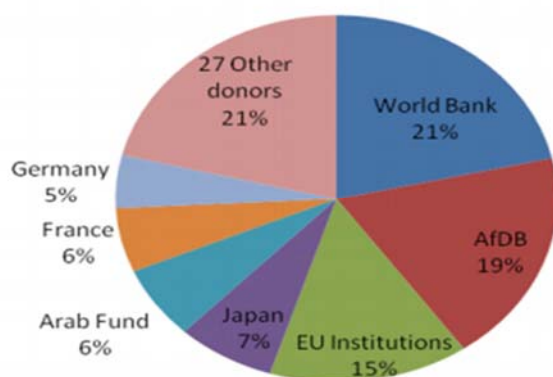
In 2003 NEPAD (2013: 11) estimated that, incremental infrastructure investment needs over the next decade would be US\$31 billion per annum, if SSA was to achieve the 7% growth rates needed to meet the MDGs, and a further US\$17 billion for maintenance. The Commission for Africa called for an additional US\$10 billion per annum in infrastructure investment to 2010 and a further increase to US\$ 20 billion to 2015. Compared to these large requirements actual investment was low. The value of new projects and programmes approved for NEPAD/STAP projects and studies (October 2005-June 2006) by the Infrastructure Consortium for Africa (ICA) total only US\$ 4.2 billion. Such needs vastly exceed the funds available from the public sector. To address this gap will require combined investment and effort from both the public and private sectors, as well as continued leadership on the subject by the AU and all of its organs.

### **2.3 Funding models and partnerships for the financing and development of Infrastructure on the African continent**

It is widely accepted that infrastructure development is critical for the reduction of poverty and sustainable development in Africa. Despite the overwhelming consensus, African infrastructure is still underfunded. There is an annual funding gap of US\$ 31 billion. This section explores existing and potential structures and partnerships utilised in the financing of infrastructure, with the view to address the funding gap.

NEPAD and OECD (2011: 1) identified that official sources of funding are not sufficient to provide the required infrastructure on the continent. Economic slowdown in countries that typically provide assistance for funding infrastructure in Africa has resulted in tightening of budgets meaning that the ODF will continue to plummet. Private investment, in its various forms has been proffered as a promising solution to the underfunding of infrastructure on the continent. It is however worth noting that for Africa's infrastructure, the World Bank, European Union institutions, the African Development Bank, the Arab Fund, Japan, Germany and France, together provided more than 79% of ODF disbursements in 2010. NEPAD and the OECD note estimates that suggest that China has outpaced the World Bank as the leading funder of Africa's infrastructure. China has achieved tremendous growth over the past decades surpassing Japan as the second largest economy in the world. As it seeks to exert greater influence on the global stage, it has become an important and influential player in Africa as a source of political and financial support for many African governments (Center for Chinese Studies 2006: 7). This financial assistance is directed towards a whole host of projects but a great portion is allocated to infrastructure development projects. This source of funding is albeit with some caveats that it is directed to those nations with resource endowments such as Zambia and Angola and neglects those countries without.

**Figure 2.3.1 Main Investors in Africa`s Infrastructure**



Source: OECD (2011a)

*The Economist* (2015: 12) postulates how Africa can find alternative sources of funding to bridge the gaps in infrastructure, manufacturing and other sectors. It notes that, in 2014, US\$ 4 billion was raised for various projects on the African continent. The features of infrastructure investment, such as long tenure, huge sums, complexity, trans-nationality and high risk are aligned with PE principles. Where PE Fund managers are seen to be active in environments other investors perceive it to be too risky. *The Economist* (2015: 12) also notes that more remain that could be jointly done by the AU together with individual member states to encourage greater PE participation on the continent. Establishing regional wide stock exchanges, strengthening the rule of law and political stability, and continued issuance of inaugural bonds by some African countries will encourage further private equity activity.

Mako and Sourrouille (2010: 4) defined investment funds as a type of collective investment vehicle. Collectively pooled investment vehicles invest in a range of assets such as bonds, equities, distressed companies and foreign exchange among other asset classes. Investors in these vehicles own a pro rata share of the fund`s investment portfolio. The OECD considers investment funds in support

of private investments as part of ODF. An example of an investment fund that is active in Africa, financing infrastructure is The Netherlands' Development Bank (NDB). The Bank manages specific Dutch government funds in sectors such as: agribusiness, the financial sector and energy and housing. The funds focus on facilitating investment in these key sectors. For infrastructure, the NDB manages the Access to Energy Fund (AEF) and the Infrastructure Development Fund (IDF) which both aim to catalyse funds from other investors. This fund's portfolio is 75% in the SSA and in other least developed countries although as of 2012, the AEF was only available to fund projects in the SSA. Blending has been used in Africa in countries such as Mali, Mauritania and Senegal to fund hydro-electric projects. It involves combining concessionary financing (grants or loans with a grant element) with debt finance from IFIs or market-based sources in order to maximise the volume of development resources available for infrastructure projects and investments in enterprises.

**Figure 2.3.2 Private equity investment in Africa**



Source: The Economist (2015)

NEPAD and OECD (2011: 1) note that weak enabling environments are hampering infrastructure development on the African continent. Weak enabling environments constitute political instability, unreliable legal frameworks, weak public administration, corruption, low capacity promoters, bankability of projects and lack of long-term finance, *inter alia*. It is therefore crucial for innovative funding structures and partners with the necessary risk appetite to be employed in financing infrastructure on the continent.

The WEF (2014: 4) concluded that world leaders increasingly share a vision of greater regional integration. Integration opens up markets, links up production clusters, facilitates free movement of services, people and goods and brings about greater political stability and peace. Greater integration is established as the back bone of transnational infrastructure. This new trend is changing the structures or models typically used to finance infrastructure on the African continent. For example, The Priority Action Plan of the Programme for Infrastructure Development in Africa (PIDA PAP) encompasses 51 programmes of regional importance in the transport, water, energy, and information and communications technology (ICT) sectors, with an investment need of USUS\$ 68 billion. The AfDB, African regional blocks such as ECOWAS and SADC, individual member states, the IMF and private investors have been brought together in an unprecedented collaboration to see these projects financed, developed and commissioned. The WEF in this regard emphasises collaborative investment as an innovative way of encouraging investment in infrastructure. It however intimates that the forms of partnering described above are not without their shortcomings. A host of financial, technical, cultural and governance related issues come into play. The Forum found that governance issues such as different national agendas and guaranteeing respective governments' equitable ownership in the regional projects was challenging. In addition the apportionment of capital costs, risks and benefits, and implementing of agreements was met with some resistance and dispute in the absence of a natural super authority.

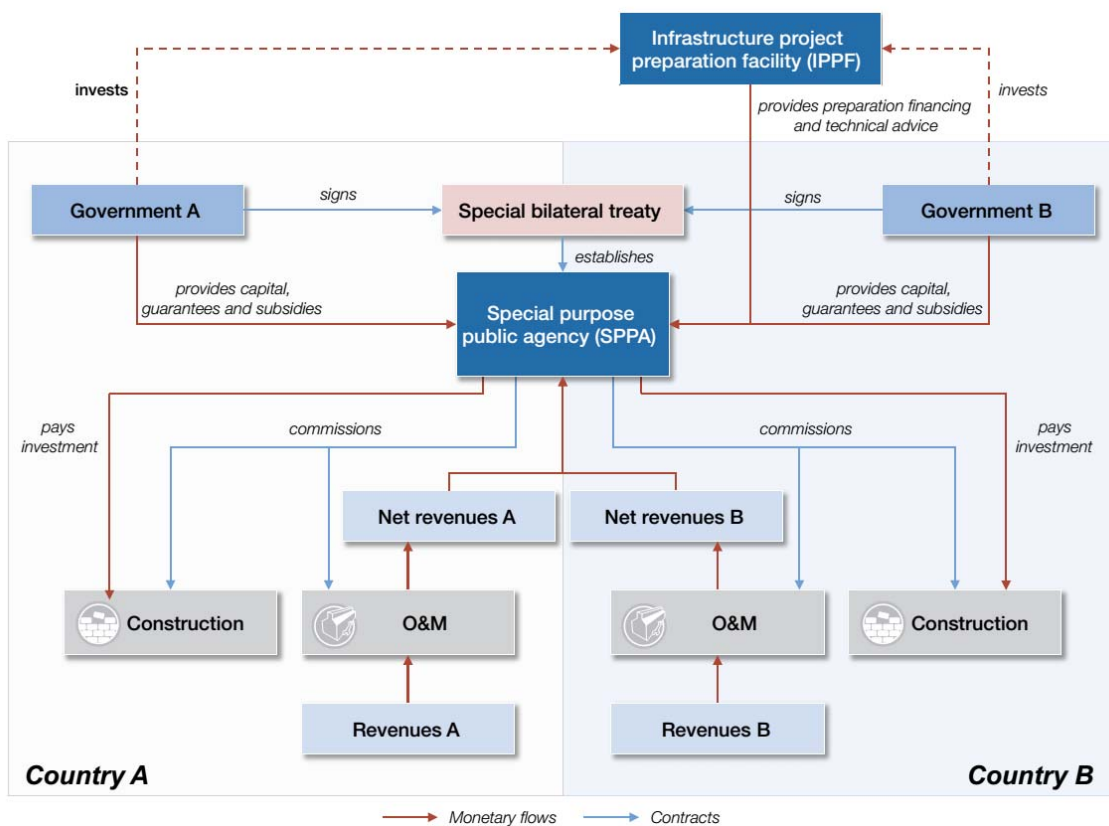
OECD (2011b: 10) notes that 67% of ODA is provided by African governments and citizens, 20% by the private sector and the remainder by China, India and Arab states. It will, therefore, be remiss not to underscore the importance of public sector finance's role in financing infrastructure of individual states across Africa. It is worth noting that most African countries are still shunned by most international investors for a number of reasons such as political instability, illiquid financial markets, poor credit ratings, lack of sizeable projects attractive to large investors and unreliable regulations as well as corruption. Because of these factors African governments remain the major contributors towards development of vital national infrastructure. These assertions are supported by the findings of a study conducted by the Council for Scientific and Industrial Research (CSIR), Built Environment South Africa (2013) which concluded that even with great strides made to encouraging private investment in infrastructure, some projects such as water, sanitation and public transportation were simply assailable to private investment mechanisms and goals.

The OECD (2014: 5) found that development finance institutions (DFIs), international organisations and specialised government agencies such as the World Bank, the AfDB, the IMF and the Development Bank of Southern Africa (DBSA) use a mix of financial instruments to enhance participation of private investors in Africa's infrastructure development. Investment funds, blended grants and guarantees are some of the instruments employed to mitigate risks in bankable projects to entice private investors who would have otherwise averse risks inherent in Africa's infrastructure projects. The IMF, recognising the uniqueness of every infrastructure project, prescribes that the structures adopted recognises the basic tenants illustrated in Figure 2.3.3. Leveraging on the lessons learnt from DFI's and other international organisations the G8 in 2005 established the ICA, which utilises similar investment mechanisms established by the former institutions. This consortium included G8 countries, key development finance institutions such as AfDB, the Private Infrastructure Development Group (PIDG) and NEPAD's Infrastructure Project Preparation Facility (IPPF) among others. The ICA is a platform for increasing financing commitments towards



Africa's infrastructure. This partnership allows for coordinated funding of vital infrastructure projects on the continent. The broad range of participants also ensure that all countries are considered as opposed to cases where the French and British institutions alone would focus on their former colonies or China focusing on resource endowed countries (G8- Gleneagles Summit 2005: 16).

**Figure 2.3.3 Infrastructure Projects Structuring**



Source: Conthe (2002)

The Chartered Financial Analyst (CFA) Institute (2013:G-24) defines Risk Budgeting and Risk Tolerance as ‘the establishment of objectives for individuals, groups, or divisions on an organization that takes into account the allocation of an acceptable level of risk’ and ‘the amount of risk an investor is willing and able to bear to achieve an investment goal’ respectively. The risk inherent in

infrastructure is significant; the operating environment in Africa - corruption, weak public administration, illiquid financial markets and lack of skills, among others, compounds that risk. Private investors risk budgeting exercises typically indicate that risks built in, in developing infrastructure in Africa is not tolerable. Varying forms of guarantees have been employed by institutions such as the EU-Africa Trust Fund among others to lower risks in infrastructure development projects thereby enabling greater participation of private investors. There are various financial instruments or funding models which are used to varying degrees to finance infrastructure. Investment Funds, Blending, Risk Mitigation Instruments and Officially Supported Export Credits are some of the instruments. Risk management's importance in infrastructure investment and development regardless of whether the source of funding is private or public cannot be understated. The case below illustrates how.

#### **Box 2.3.4 Risk Mitigation Value in Infrastructure in SSA**

In 2007, The Multilateral Investment Guarantee Agency (MIGA), a member of the World Bank Group, underwrote USD427 million in guarantees for equity investment and Islamic project financing for the construction of the Doraleh Container Terminal in Djibouti in line with Islamic financing requirements, making it the first MIGA guarantee to comply with Sharia rules on project financing. The project is expected to help make Djibouti a trade gateway for the Common Market of Eastern and Southern Africa (COMESA) region. MIGA also supported the modernisation of container-terminal areas of the port of Dakar, which will include upgrading equipment and operations systems. The project is expected to lead to a reduction in shipping costs, and an increase in access to shipping services for the landlocked country of Mali.

Furthermore, MIGA is helping to unlock Africa's renewable energy potential, as part of a strategy to mitigate the adverse effects of climate change. For example, KenGen was already operating two plants at Olkaria in the Kenyan Rift Valley; in 1998, it was awarded a BOT concession to design and construct a third one, Olkaria III, to Ormat Technologies, an IPP. The project became the first privately funded and developed geothermal project in Africa. MIGA provided a guarantee of USD37.5 million to cover Ormat's equity investment for an initial installation of 8MW, which came online in 2000, completing the first phase of the project. MIGA signed an additional guarantee for

political risk insurance in 2007 when Ormat's concession was renewed, this time to increase the plant's generation capacity to 48 MW. MIGA also supported Umeme, a distribution company in Uganda, which was awarded a 20-year electricity distribution concession in 2005, making it the first private distributor of electricity in all of SSA.

Source: OECD (2012)

## **2.4 Transnational Infrastructure Development in the SSA region**

### **2.4.1 Grand Ethiopian Renaissance Dam (GERD): Transnational Infrastructure Development Challenges on the African Continent**

The Ethiopian government issued its inaugural Eurobond in 2014 to support the funding of key infrastructure, namely rail infrastructure, plantation irrigation infrastructure and to finance the construction of the GERD. The issue raised US\$1 billion, showing the faith that the markets had in the Ethiopian economy and specifically the commercial aspects of the specific infrastructure projects the funds were earmarked for (*Finweek* 18 December 2014: 6). Hammond (2013: 18) intimates that the GERD is the largest engineering undertaking by the Ethiopian people. It is estimated to generate 5250 Megawatts of Hydro power, built 45km east of the Ethiopian border with Sudan, the GERD will at full supply cover an area of 1680 km<sup>2</sup> and its volume will be 63 billion cubic meter (BCM). The GERD will be constructed over the Blue Nile. The Nile Basin is shared by eleven countries; Sudan, Egypt, Ethiopia, and Eritrea in the eastern part of the basin; Uganda, the DRC, South Sudan, Kenya, Rwanda, Burundi, and Tanzania.

Veilleux (2013: 44) contends that historical legacies are affecting the present day geopolitics of the Nile Basin as the Egyptian government protests and threatens military sabotage of the GERD. Contractually all countries in the Nile Basin are affected by the colonial-era motivated and designed 1929 Nile Treaty, modified by Egypt and Sudan in 1959 which divides all water rights between Egypt and

Sudan. The two countries also in the treaty claim legal recourse over upstream developments plans by the great countries of the great lakes. Kenya and Egypt are economically the strongest countries of the Nile Basin and this has meant that only Egypt has used the bulk of the water from the Nile Basin. The Cooperative Framework Agreement (CFA) is a new blueprint designed to replace the Nile Treaty and make water sharing among the 11 countries more equitable. The CFA project was instituted in 2007 but due to a lack of commitment and disagreements between the rectifying member countries was starting to seem like it would never be completed but the GERD has brought back focus on it and a new impetus to expeditiously see it concluded.

Whittington *et al.*, (2014:604) postulate that the escalation of tension between Egypt and Ethiopia over the construction of the GERD are based on misunderstandings of the nature of risks the GERD poses to Egypt. Three simple rules are proposed to end the dispute; clearly establishing rules to fill up the dam, usage of water from the reservoir during droughts and Egypt recognising Ethiopia's and other Nile Basin countries' rights to equitable use of the Nile water. Hydro Power generation by Ethiopia along the Nile poses less risks as opposed to cases were Ethiopia could decide on irrigation projects. The Nile Treaty entitles Egypt to 55.5 billion cubic meters of water and Sudan to 18.5 billion cubic meters whilst restricting all countries in the Nile Basin to no allocation at all. This situation is evidently unsustainable and as such Ethiopia and all the other countries in the Nile Basin have an incentive to complete processes instituted to develop a more equitable water sharing treaty. The international community and other African nations have a stake in this matter. Recent developments in Sudan with the formation of South Sudan alter the geopolitics of the region significantly. Saudi Arabia and Kuwait prefer a stable Egypt and are also interested in food exports from Ethiopia and Sudan and as such they have been quick to mediate.

Tesfa (2013: 5) argues that the conflict between Ethiopia and Egypt with regards to the GERD has its source in the economic differences between the countries

and experienced unfairness of the past with regards to the utilisation of the Nile resources. Tesfa asserts that Egypt has a 99.6% electricity access whilst for Ethiopia and other nations within the Nile Basin average electricity access is below 15%. The desperation of the Ethiopian government to develop its nation and provide vital infrastructure for its people compels it to proceed with projects such as the GERD even before mutual agreement has been reached with downstream riparian nations. In addition, Trans-boundary projects because they can be unilaterally developed tend to pose greater potential for conflict as opposed to border projects. The GERD is a trans-boundary project, developed unilaterally and as such has yielded the noted discomfort, however unmerited, between Egypt and Ethiopia.

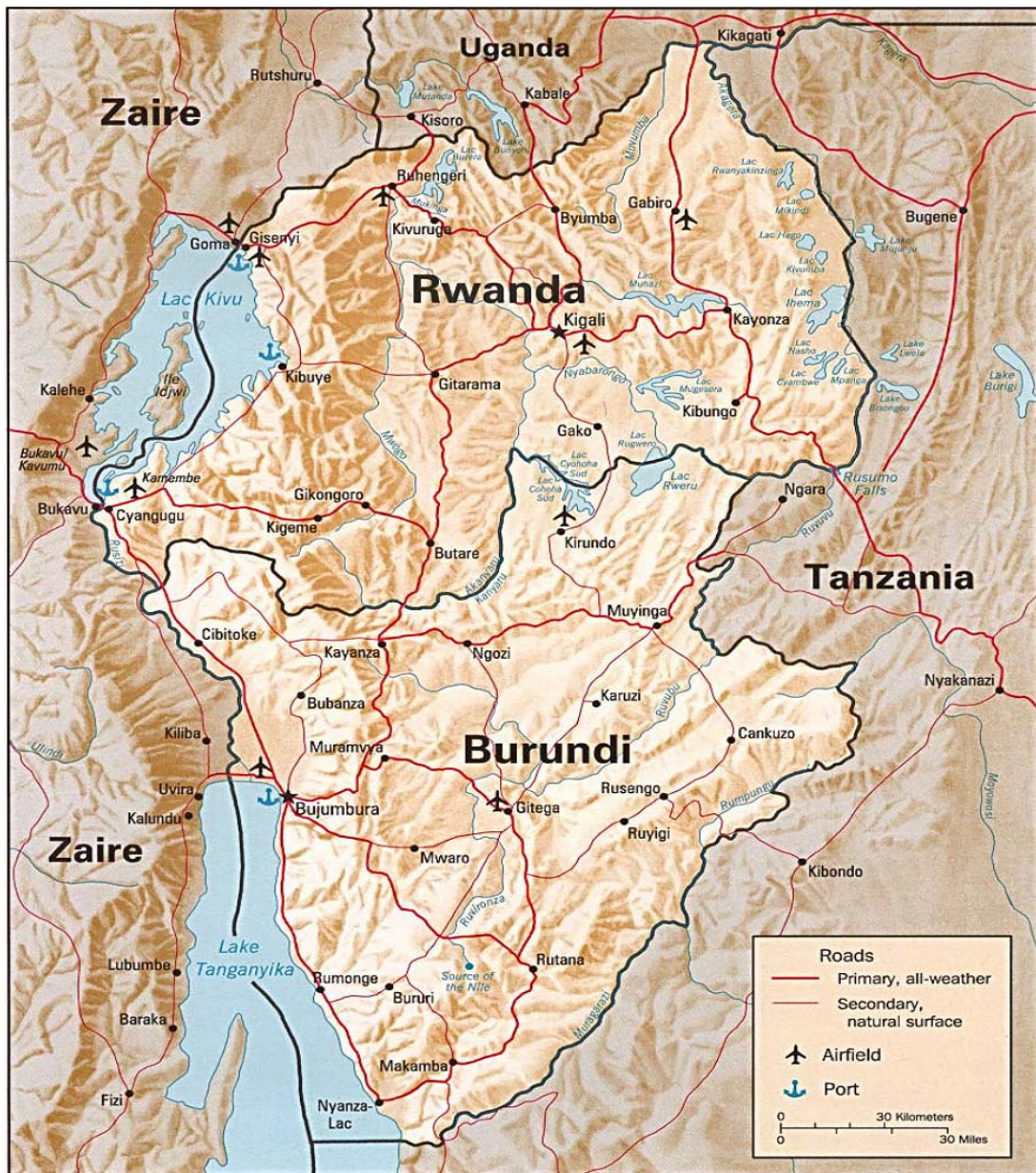
#### **2.4.2 Rusumo Falls Hydroelectric Project (RFHP): Transnational Infrastructure Development Fostering Cooperation and Economic Integration**

The RFHP is a jointly funded and managed initiative by three countries of the Nile Basin; Rwanda, Burundi and Tanzania. The objective of the project is to develop hydroelectric power and regional transmission lines connecting Rwanda, Burundi and Northwest Tanzania. Figure 2.4.2.1 shows the location of Rusumo Falls. Hydroelectric power will be transmitted from Rusumo to Gitega, Burundi (161 km), Kigali, Rwanda (109 km) and Nyakanazi, Tanzania (98 km). The RFHP is along the Kagera River at the border between Rwanda and Tanzania. The total cost of the project US\$ 346 million will be funded by the three governments, the World Bank, AfDB and other international agencies. The aim of the RFHP is to achieve socioeconomic development via provision of reliable electricity,



especially in Northwest Tanzania, a region with significant natural resources not connected to the Tanzanian national power grid (Artelia 2013:201).

**Figure 2.4.2.1 Rusumo Falls along the Kagera River on the border between Tanzania and Rwanda**



Source: University of Texas (2003)

The AfDB (2013: 46) reiterated the role of regional and international organisations in financing infrastructure in Africa and fostering cooperation amongst African nations. It notes that the RFHP is a combination of projects; hydropower generation and transmission. The RFHP will be commissioned in August 2018; the 80 Megawatt Power Plant is expected to cost US\$ 340 million, including transmission lines the total project will be US\$ 470 million, funded by the World Bank, the AfDB and the EU-ITF among others. The AfDB found that the Country Strategy Papers (CSP) for Rwanda, Burundi and Tanzania premise economic growth aspirations around development and appropriate utilisation of infrastructure. Risk Mitigation is noted as crucial in infrastructure development and in the case of the RFHP the consortium of financiers has taken measures to maximise the likelihood of success by employing and placing qualified staff within the Nile Equatorial Lakes Subsidiary Action Program (NELSAP), setting up clear governance and accountability mechanisms, conducting geopolitical investigations before appointing engineering contractors and demanding off takers to make advance payments into an escrow account.

The NELSAP (2013: 42) contends that the RFHP benefits will go beyond economic cooperation and a shared energy generation strategy. It notes that during the evaluation stages of the project policy and laws from the three respective countries had to be aligned in order for the project to go ahead. Environmental, land and energy policies and laws from each country had different standards, measurements and implications for the project. Because the project had to be approved by the parliaments in all three countries, amendments had to be made, which have since brought laws and politics of the three states closer. This is seen as a form of integration which will make it easy to do business in the region as the laws have been aligned.

Dillow (2014: 48) contends that energy provision have always been costly burdens for Rwanda, Burundi and Tanzania. Energy supply and access to the national grid varies between the countries; Burundi has 3% and 6%, rural and urban access, respectively, to the national power grid, in Tanzania one in five

people have access to the national power grid whilst in Rwanda national access to the power grid is 10.8%. The shared struggles to provide energy within the region have necessitated the need for greater cooperation and integration even in situations where the politics are less than ideal. He also notes that Rwanda and Tanzania equally sharing energy rights with Burundi even though it is upstream, the project is testament to the level of cooperation within the region.

Dombrowsky *et al.*, (2014:1093) postulate that dams on shared rivers provide a unique opportunity for cooperation and sharing. Joint ownership and equal sharing are some of the principles that foster cooperation and sharing. They note that the case of the RFHP is unique because the project is considered a border river project which is generally easy to structure as opposed to trans-boundary projects. Tanzania and Rwanda jointly used World Bank processes and standards for compensating those to be displaced by the project which aligned their policies in this regard. The US\$ 470 million RFHP is funded by the World Bank, the AfDB, the EU-ITF and others, the international and regional organisations played a role in encouraging cooperation and acted as facilitators in cases where the countries had opposing positions. The RFHP was deliberately designed with goals to facilitate economic integration and political stabilisation in the Nile Basin, particularly among the three countries involved with the project.

## **2.6 Conclusion**

The BCG (2014:30) recognised the importance of transnational infrastructure. It notes that transnational infrastructure is critical for creating regional markets, connecting production clusters in different countries and linking these clusters with markets. It analyses trends in infrastructure development intimating that the popularity of transnational infrastructure project developments far extend the African borders. Many initiatives to pursue infrastructure ventures with neighbours are being undertaken in Asia and Europe. The Greater Mekong Sub-region (GMS) programme oversees a portfolio of 58 projects, with an investment



volume of US\$ 26.5 billion in hard and soft infrastructure across Cambodia, China, Laos, Myanmar, Thailand and Vietnam, in South-East Asia. In Europe, the Helsinki Declaration of 25 June 1997 lays out a set of principles for a European transport policy, while Articles 170-172 of the Treaty on the Functioning of the EU provide the basis for trans-European networks in the transport, energy and telecommunications sectors.

This chapter analysed literature on infrastructure and its impact on Africa's global competitiveness and reviewed the key issues and trends. It also contained statistical analysis illustrating the magnitude of the infrastructure gap and reviews of relevant case studies. The theoretical understanding of the subject, acquired at this stage will aid the researcher in carrying out research as outlined in the following chapters.

## Chapter 3

### The African Union and infrastructure development in Africa

#### 3.1 Introduction

Infrastructure investment is a key contributor to growth, especially in the first stages of development. The Global Competitiveness Index 2014-2015 found the main drivers of growth in developing countries to be infrastructure and education investments (The World Bank 2015: 6). These drivers yield growth in the initial 'factor-driven' stage of development applicable to almost all countries in the SSA. Compared with other factor driven growth countries in Asia, those in the SSA, through the combined efforts of individual AU member countries and the various AU organs such as NEPAD and the AfDB, has been fairly successful in mobilising resources for primary and secondary education. This chapter of the study documents the origins, organs and policies of the AU with specific reference to infrastructure, infrastructure investment and development within the SSA.

The Sirte Declaration (1990) paved the way for the transition from the Organization of African Unity (OAU) to the African Union (AU). The OAU was established in 1963 by an agreement signed by 32 liberated African countries, after decades of long negotiations by the continents' heads of state and governments. The OAU was designed and intended to be a Pan-African response to changing challenges that faced and face the continent. Today, 54 countries constitute the AU with South Sudan being the youngest and most recent member. The AU aims to achieve better livelihoods for the African people through greater integration and harmonisation of, inter alia, economic, education, cultural, political and defence policies (AU 2014: 10).

NEPAD (2015e), accepting the wide range of roles the AU plays on the continent, contends that the extent to which the AU can ensure economic

prosperity for the African people will be one of the main parameters for evaluating its success. Infrastructure development has been identified as a cornerstone for economic success; as such AU organs such as NEPAD, the AfDB and other financial institutions have been tasked to promote infrastructure development across the continent. Effective region wide infrastructure enables inter-country trade and regional co-operation which are a key part of building a stronger and more sustainable African economy. By encouraging regional co-operation the AU aims to assist countries in being better able to trade, share resources and build mutually beneficial infrastructure. The AU through its organs such as NEPAD plays a co-ordinating, advocacy and facilitation role in this respect. The AU's aim is to promote regional economic integration by bridging Africa's infrastructure gap. There can be no meaningful development without trade and there can be no trade without adequate and reliable infrastructure.

(Welz 2014: 6) ventures that the AU is riddled with contradictions which impedes it from accomplishing its goals. Using the Pan- African Parliament (PAP) as an example he tried to show these contradictions. The PAP is an advisory organ to the AU Commission, it sits twice a year and its members are not democratically elected but are seconded members of member states' parliaments, this means that they are likely to be loyal to the member countries not to the AU. The PAP recommendations for example as to the establishment of the United States of Africa and validity of elections in Zimbabwe tend to be disregarded without consideration. Furthermore the African Peer review Mechanism (APRM), a mechanism for African nations to improve governance in various fields such as the economy, human rights and corruption, tends to generate positive reviews for African nations which are contradicted by the international community. For instance, the Africa Research Bulletin 2010 reported that in Ethiopia, Meles Zenawi the Prime Minister silenced the opposition in 2008 and that the election was fraught with Fraud but the APRM issued a favourable partly free status to the country. It is clear that the AU and individual states despite contrary stipulations being made in the Constitutive Act place a greater premium on not intervening in member states' affairs even in cases were the supreme law of the

continent encourages otherwise. This phenomenon does not plague European states and as such creates a misalignment between existing theories of integration and the real ongoing process of integration in Africa.

This chapter, whilst briefly explaining the origins of the AU, focuses primarily on how its organs and policies have, are and will impact infrastructure development in Africa and also evaluates African integration theorisation.

## **3.2 AU History and Origins**

Oxfam (2012: 2) contends that the establishment of the OAU and the AU, which succeeded the OAU in 2002, was a manifestation of the rise of the Pan-African movement and a culmination of the desires of the African leadership to unite the people of Africa faced with challenges of globalisation. Mbeki (2012: 14) concurs with the idea that the AU has its founding in Pan-Africanism. He intimated that the AU was a promise to the people on the African continent and its diaspora of uninhibited emancipation. The AU was formalised by the Constitutive Act, which is the supreme law of the continent, approved by all parliaments of the people of Africa. This Constitutive Act represents unequivocal commitment to African unity.

### **3.2.1 Pan-African Movement (PAP)**

Adi and Sherwood (2003: 8) demonstrate that the principles on which the OAU and subsequently the AU are founded upon were not recent phenomena. Prominent Pan-Africanists such as Duse Mohamed Ali borne in 1866 understood and wrote about the liberation of Africa and Africans. Adi and Sherwood define Pan-Africanism as collective actions of people whose lives and work have been concerned, in one way or the other, with the social and political emancipation of African people and those of the African diaspora. There are numerous definitions

of Pan-Africanism which authors, philosophers and politicians have used; all reference a common purpose for the African people and its diaspora.

Harris (2003: 18) intimated that Pan-Africanism as an ethical system traces its origins from ancient times, and promotes values that are the product of the African civilisation and the struggles against slavery, racism, colonialism and neo-colonialism. It is commonly viewed that European style slavery brought about Pan-Africanism as it set aside cultural differences, asserting the principality of these shared experiences to further solidarity and resistance to exploitation. The modern organised Pan-African movement began around the beginning of the 20<sup>th</sup> century with figures such as Henry Sylvester-Williams, who were concerned with the problem of colour line; they sought to secure civil and political rights for Africa and its diaspora throughout the world.

Badejo (2008: 17) contends that the American Edward Wilmot Blyden should be credited with Pan-Africanism that referred to the unity of all continental Africa. It is worth noting that the concept was widely adopted in all cases of Africans' emancipation for instance in South Africa during apartheid and in America during the civil rights movement of the 1960s. There is a new Pan-Africanist movement which has developed in the 21<sup>st</sup> century which recognises that African nationalism has to be Pan-Africanism; that 'territorial nationalism' built within countries whose boundaries were artificially drawn by colonial masters was both unreal and unviable. It is this new Pan-Africanism that is driving African integration, which led to the termination of the OAU and the birth of the AU; it recognises the role of integration in procuring economic prosperity for Africa; for the survival of its culture, traditions, art and historical legacies.

### **3.2.2 Creation of the AU**

Shivji (2008) recognised the role Pan-Africanists such as Edward Wilmot Blyden, Henry Sylvester-Williams and William Marcus Garvey played in the founding of both the OAU and AU. It was Henry Sylvester Williams that first used the term

Pan-Africanism and organised the first Pan-African congress in 1900. The OAU which was formed in May 1963 in Addis Abba was a culmination of French speaking and liberated West-African nations, changing the demand from West-African Unity to a desire to have an all embracing continental African unity. Thirty of the then liberated 32 African nations participated in the initial OAU conference, only Togo and Morocco were absent.

**Figure 3.2.2.1 Initiatives and Progresses undertaken by African countries for the establishment of the AU**

- The African Charter on Human and People’s Rights (Nairobi 1981) and the Grand Bay Declaration and Plan of Action on Human Rights: (Mauritius 1999) two instruments adopted by the OAU to promote Human and People’s Rights in the continent. The Human Rights Charter led to the establishment of the African Human Rights Commission located in Banjul, The Gambia;
- Africa’s Priority Programme for Economic Recovery (APPER) established in 1985 as an emergency programme designed to address the development crisis of the 1980s in the wake of protracted drought and famine that had engulfed the continent and the crippling effect of Africa’s external indebtedness;
- The OAU Declaration on the Political and Socio-Economic Situation in Africa and the Fundamental Changes taking place in the World (1990), which underscored Africa’s resolve to seize the initiative, to determine its destiny and to address the challenges to peace, democracy and security;
- The Charter on Popular Participation adopted in 1990 as a testimony to the renewed determination of the OAU to endeavour to place the African citizen at the centre of development and decision-making;
- The Treaty establishing the African Economic Community (AEC) in 1991: commonly known as the Abuja Treaty, it seeks to create the AEC through six stages culminating in an African Common Market using the Regional Economic Communities (RECs) as building blocks. The Treaty has been in operation since 1994;
- The Mechanism for Conflict Prevention, Management and Resolution (1993): a practical expression of the determination of the African leadership to find solutions to conflicts, promote peace, security and stability in Africa;
- The Cairo Agenda for Action (1995): a programme for re-launching Africa’s political, economic and social development;
- African Common Position on Africa’s External Debt Crisis (1997): a strategy for addressing the continent’s external debt crisis;
- The Algiers Decision on Unconstitutional Changes of Government (1999) and the Lomé Declaration on the Framework for an OAU Response to Unconstitutional Changes (2000);
- The 2000 Solemn Declaration on the Conference on Security, Stability, Development and Cooperation: establishes the fundamental principles for the promotion of Democracy and Good Governance in the Continent;
- Responses to other challenges: Africa has initiated collective action through the OAU in the protection

Source: Oxfam (2012)

Oxfam (2012: 6) notes that the OAU was formed with the primary objective of attaining sovereignty, territorial integrity and independence and eliminating all forms of colonisation on the African continent. Contrarily the AU was established to allow for greater economic and political union among all African people. The AU was and is designed to allow for greater participation by ordinary African people in shaping Africa's agenda and future with an emphasis on economic development, cultural harmonisation and distribution of resources among others. It is not a wonder that the AU was established when the cold war had ended, South Africa had been liberated and globalisation was taking centre stage. African leadership felt the need to create an institution that could unify Africa, allow for greater cooperation of its people, yield strong economic growth, bring about democracy and strengthen the African voice on the global stage.

The AU (2014: 10) details initiatives and measures made by African countries including substantial progress in key sectors paving the way for the establishment of the AU (see Figure 3.2.2.1).

### **3.2.3 The Advent and Vision of the AU**

Okhonmina (2009: 86) notes that OAU initiatives paved the way for the establishment of the AU. Four summits were instrumental in the formation of the AU and these are the Sirte (Libya) Extraordinary Session (1999) that decided to establish the African Union, the Lome Summit (2000), which adopted the Constitutive Act of the Union, the Lusaka Summit (2001) that drew the roadmap for implementation of the AU and the Durban (South Africa) Summit (2002) that launched the AU and convened the 1st Assembly of the Heads of State and Government of the African Union. The AU was formed to expedite economic and political integration in a fashion the OAU framework and organs could not accomplish.

The AU (2015c) states that the vision of the AU is that of an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a

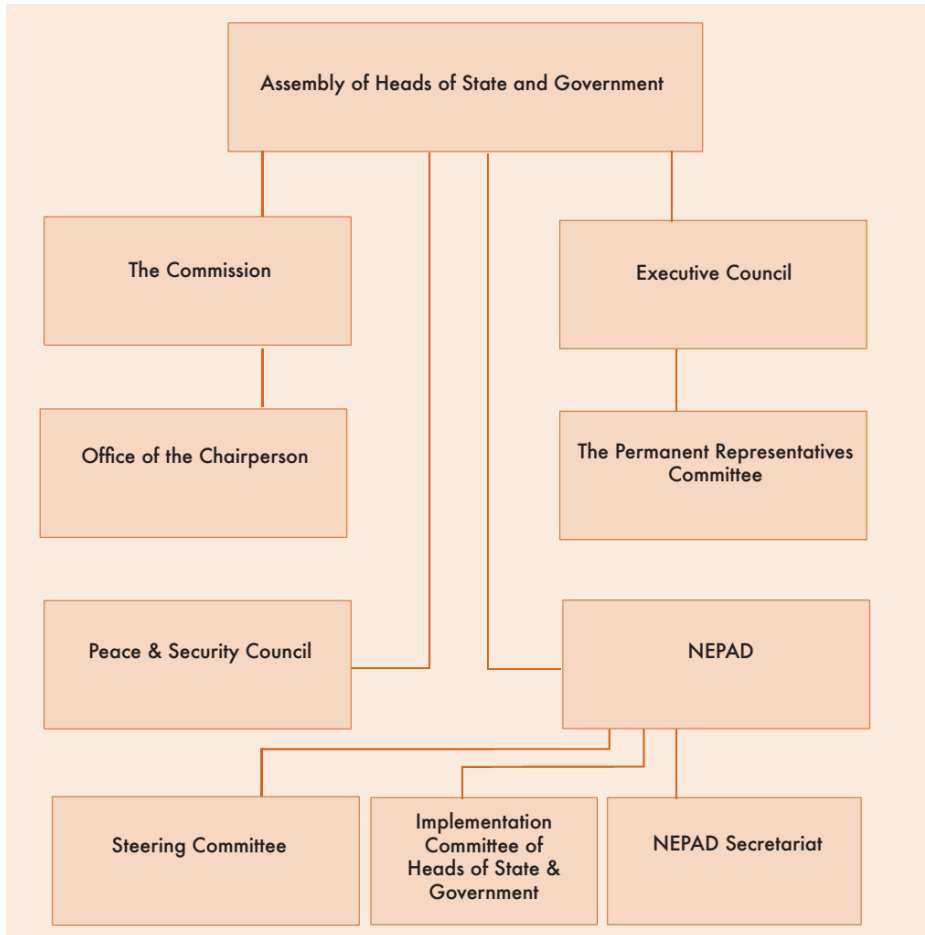


dynamic force in the global arena. The Constitutive Act of the AU stipulates that it was established to 'accelerate the political and socio-economic integration of the continent; promote peace, security, and stability on the continent; as well as promote sustainable development at the economic, social and cultural levels as well as the integration of African economies'.

### **3.3 AU Organs**

The AU has many organs, supporting institutions and partners. The Assembly of the Union is made up of Heads of State and Government and is the highest decision-making body of the AU. Its other bodies include The Executive Council, The Pan-African Parliament, The African Court on Human Rights, The African Union Commission, The Permanent Representatives Committee, The Specialised Technical Committees, The Peace and Security Council, The Financial Institutions, The Economic, Social and Cultural Council, The African Union Commission on International Law, The Advisory Board on Corruption and the African Committee of Experts on the rights and welfare of the Child. Most recently the AU Assembly adopted a resolution transforming NEPAD from a programme into an organ (AU 2014: 10).

**Figure 3.3.1 AU Organs**



*Source: Oxfam (2012)*

Oxfam (2012: 14) summarises the numerous organs of the AU. The Pan-African Parliament is a consultative and advisory organ which was designed to encourage the full participation of African people in the continent's development and economic exercises. The intended goal for the Pan-African Parliament is for it to have full legislative authority. The Peace and Security Council is the standing AU decision making organ on peace and security matters; it falls under the African Peace and Security Architecture (APSA) which also has organs such as the African Standby Force and Peace Fund as part of it. The PAP and the Peace and Security Council among other AU organs have at times indirect influence on

infrastructure development and other economic activities on the continent. These institutions are designed and work to ensure regional stability, which lowers the risk profiles for both local and trans-national infrastructure projects making them attractive investments. The researcher recognises that all AU organs impact infrastructure development one way or another but the focus of this study is on those organs which have a direct impact and have specific mandates pertaining to economic and more specifically infrastructure development. The organs identified to have mandates specified above are the Financial Institutions, NEPAD, the AfDB, the Assembly, the United Nations Economic Commission for Africa (UNECA) and the AU Commission (AUC).

### **3.3.1 The AU Assembly**

The AU (2014: 12) describes the Assembly as the supreme decision-making organ of the union and comprises of Heads of State and Government from all member states. The Assembly crafts the strategic goals and direction of the AU, determining the AU's foreign, defence and economic policies with assistance from the Executive Council. The Assembly establishes its priorities, adopts its annual programme and monitors the implementation of its policies and decisions. Procuring for Africa and Africans accelerated political and socio-economic integration is the ultimate mandate of the Assembly.

The Presidential Infrastructure Championing Initiative (PICI) was established under NEPAD to encourage national heads of states to patron the development of specific projects under PIDA and others. The Assembly evaluates the success and progress of PICI adopted projects parallel to overall NEPAD assessments. The PICI sets infrastructure goals that typically are evaluated annually. The PICI report to the 32nd Summit of The New Partnership for Africa's Development (NEPAD) Heads of State and Government and Orientation Committee, 29 January 2015 presented some successes yielded by taking a continental approach to the financing and development of Infrastructure. In the 2015 summit President Jacob Zuma reported that under PICI, the AU and individual member

states' combined initiatives had quadrupled the investment in infrastructure, increased trade between Africa and the rest of the world and made Africa a preferred FDI destination. The PICI aims to sustain the trend above by continuing to improve governance and macro-economic management across the continent (Zuma 2015:01).

The (AU 2015a: 24) avow specific initiatives current and planned the Assembly has undertaken and those it intends to undertake to ensure adequate provision of Infrastructure on the continent. Jointly member states and AU led infrastructure projects have been identified to foster regional integration. The Assembly resolved that innovation and awareness to climatic changes are some of the ways of ensuring that relevant, efficient and effective, *inter alia*, transport, communications, education, health and water systems are made available on the continent to boost economic activity and to respond to the requirements of African communities as they get wealthier. The 24<sup>th</sup> AU Summit Assembly/AU/Decision 552 emphasises the commitment of the Assembly in providing a holistic solution to the challenges that bedevil the infrastructure sector by recognising that skills shortages are also playing a part in under-development. The (AU Decision 552- 2015) designates the host country of the Pan-African University Rectorate, appointing Prof Tolly S. Mbwette of Tanzania and Prof Paulo Horacio de Sequeira e Carvalho as President and Vice- President of the Pan-African University. To be Cameroon country, it also asserts that skills development particularly in the fields of engineering, mathematics, science and finance are vital in financing and developing infrastructure. The AU's assertions are seconded by the WEF (2015) which contends that infrastructure development in China has been linked to its successes generating engineers, economists and other related skills required in infrastructure development.

Subsequent to the themes of presidential patronage, skills development and innovation among others raised above, the Assembly has adopted to facilitate economic and infrastructure development; its efforts along political risk reduction in order to encourage investment on the continent are worth noting. Political risk

can be defined as the risk that a host country takes when it makes political decisions which prove to have adverse effects on its people, other nations, and enterprises both local and multinationals profitability, provoking the international community or unilateral action by another nation aimed at strategic, military, territorial, financial or personnel losses of that country. Political risk is related to changes in macroeconomic and social policies (such as fiscal, monetary, trade, investment, industrial, income, labour, and development policies) or to political instability (terrorist attacks, riots, coups, civil wars and insurrections). Political risk and macro-economic stability are important in the determination of how regions perform in terms of FDI and how MNCs and international institutional investors assess countries using a number of risk indices that incorporate strength of public institutions, rule of law, civil society participation in the economy and others (Solomon and Ruiz 2012:183).

The AU (2015a:13) intimates that the AU Assembly through continuous engagement of heads of states and a deliberate policy to foster greater political, economic and cultural integration has significantly reduced political risk thereby increasing FDI towards African infrastructure. The 24th AU Summit, Assembly/AU/Declaration 3 which gives support to the countries of the Lake Chad Basin Commission (LCBC) and Benin in the fight against Boko Haram is one example of the Assembly's role in the reduction of political risk with the view to create a stable investment environment, safeguard African lives, and protect human rights.

### **3.3.2 AU Executive Council**

The AU (2014:14) intimates that the Executive Council is composed of all member nations at foreign minister level and is responsible to the Assembly. It can delegate its functions and powers to specialised technical committees. The executive committee assigns tasks to the commission, elects commissioners for

appointment by the Assembly and provides recommendations to the Assembly as to the structure of the commission, policies for adoption and rules and regulations.

At the 24<sup>th</sup> Annual AU Summit that was held in Addis Abba (Ethiopia), the decisions undertaken by the Executive Council reiterated the council's commitment to infrastructure development and good corporate governance. EX.CL/Dec 857 focused on the establishment of a review mechanism to ensure that quality infrastructure is developed especially for the projects being developed under PIDA. The Council recognised the financing challenges facing PIDA and prescribed that individual member countries establish effective financial markets and utilise euro markets for infrastructure finance (AU 2015b: 24) . The Executive Council through the AU Commission would establish a methodology and indicators for the measurement of regional integration with the view of creating an African Regional Integration Index (ARII) of which the goal is to ensure that cooperation is measurable and its benefits can be felt across the continent; trans-national infrastructure and connectivity of various regions on the continent will be a major pillar of the index (AU 2015b: 21).

The AU (2014a: 1) contends that infrastructure is the cornerstone of facilitating integration in Africa. It cites the EU and NAFTA as good examples in demonstrating the role of infrastructure in development and integration. Without infrastructure economic and social development will remain low. The (AU 2014b: 16) recognised that Africa lags behind other developing regions with regards to infrastructure coverage and it proposed several measures to ameliorate this challenge. Among the proposed infrastructure projects to transform transportation and trade on the continent is a high speed railroad across the continent to be built by 2063. The AU has agreed with the Chinese government to establish a research centre to ensure that the project is implemented successfully. The AU Executive Council and the AU Commission emphasised the need for member states to take ownership of infrastructure projects within their countries because the ODA has been declining with developing nations battling

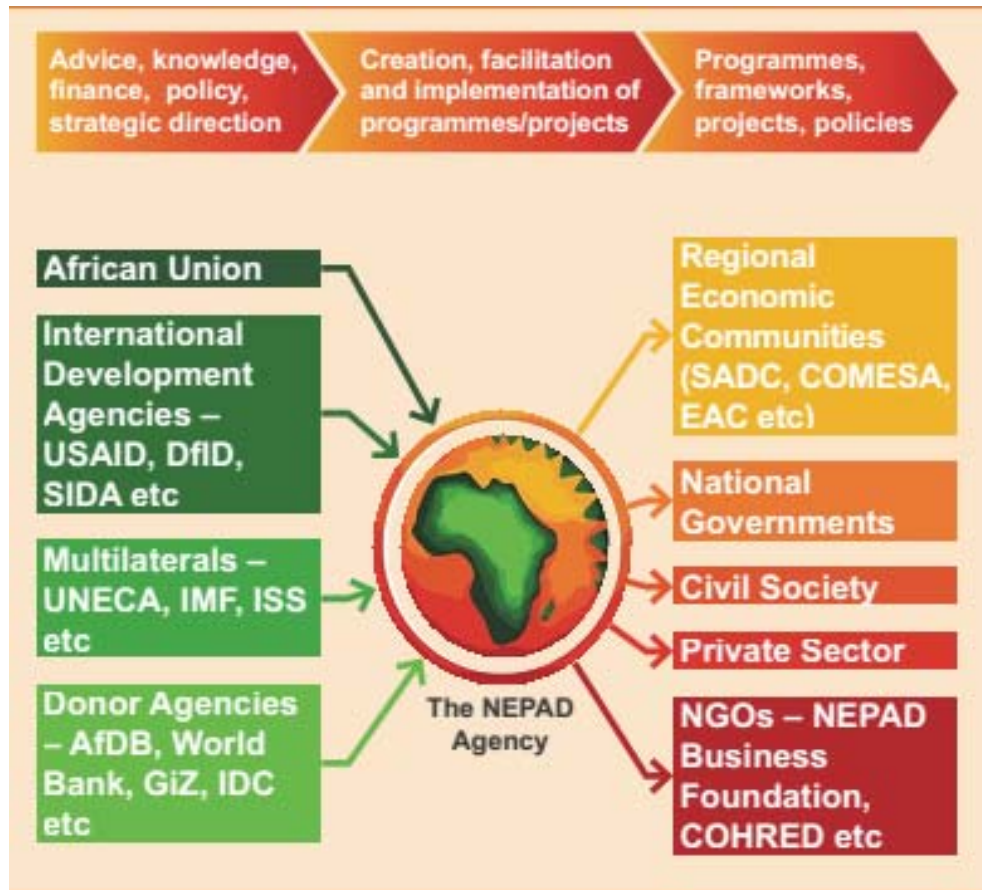
with their slowing economies. Energy, Transport and Communication were infrastructure sectors identified to be crucial in facilitating this and therefore should be prioritised; these will assist in the establishment of the Continental Free Trade Area (CFTA). Through the PIDA the AU Council and the AU indicated its commitment towards renewable and fossil fuel energy projects and to increase agricultural production through irrigation projects, building storage facilities, distribution infrastructure and markets.

The AU Constitutive Act is significant as the supreme law of the continent approved by all parliaments of the peoples of Africa. The Act, adopted in 2000 in Lomé (Togo) and came into force in 2001, in addition to allowing for the establishment of the Executive Council, the Constitutive Act went further detailing the functions of the Executive Council with regards to infrastructure development, economic integration and governance matters on the continent. The Constitutive Act stipulates specific infrastructure mandates for the Executive Council, namely to coordinate and make decisions pertaining to local and foreign trade, energy, industry and mineral exploration, water resources and irrigation, and transport and communication; this shows how important infrastructure is to achieving the AU's vision for the continent (AU2014: 19).

### **3.3.3 NEPAD**

The NEPAD is an AU organ that plays an intermediary and brokerage role between African constituents, African partners, and partners outside of Africa on developmental issues. The Organ builds institutional linkages and taps into existing technical resources to support the NEPAD agenda, with the African Union directing NEPAD policy at the highest levels. Figure 3.3.3.1 illustrates how the NEPAD relates to other AU organs (NEPAD 2015a: 11)

**Figure 3.3.3.1 The link between NEPAD and the AU**



Source: NEPAD (2015a)

The AU ratified NEPAD in 2002 to address development challenges in a new environment. Economic crises, regional instability, failure of structural adjustment programmes of modernisation and falling growth rates when other regions such as Asia were on the rise, inspired the formation of NEPAD, as a strategic framework and vision; its aims were and are poverty reduction, crafting a development path, prevent marginalisation of Africa and empower women. At its core NEPAD encourages and enables member states to take responsibility for their development goals, for instance with funding infrastructure projects, fostering greater cooperation between countries and acting as a platform for the AU and individual member states to interact with international partners. It has six



major areas of focus, one of them being regional integration and infrastructure development. The symbiotic relationship between integration and infrastructure is emphasised by the manner in which NEPAD structures its areas of focus, infrastructure and integration falling under one umbrella as the two are correlated (NEPAD 2015e).

*New African Magazine* (2012: 6) assesses the effectiveness of NEPAD as the continent's primary socio-economic development organ structurally and in terms of milestones achieved. The magazine notes that more than 10 years since its birth NEPAD has been transformed from an agency to an organ thereby giving it legal status and allowing for better coordination of its activities and that of the AU Commission. NEPAD has successfully launched a number of programmes which include the Comprehensive Africa Agriculture Development Programme (CAADP), PIDA and PICI which have been involved in the development of roads, dams, energy projects and many other project classes across the African continent. The assessment unearthed one main challenge which the researcher has cited numerous times above and will note several times below, lack of financial resources on the continent. The problem with NEPAD is that it is a programme by and for Africans. The continent's development which is designed to be funded primarily by external partners is why NEPAD lags behind when evaluated against its set goals and targets. A good example is how the AU could not fund the construction of its headquarters; it took China three years to complete the project on behalf of the Union. It is crucial in light of the challenges above to note that development goals can also be supported by creating democratic and strong public institutions which NEPAD has contributed towards through the African Peer Review Mechanism (APRM).

### **3.3.3.1 NEPAD`s Agriculture and Food Programme**

The bulk of Africa`s population is rural based. Smallholder farmers form the bulk of the rural population. It is because of this that NEPAD has prioritised assistance to smallholder farmers to ensure that poverty is reduced. The overall aim of the Food and Agriculture programme is to improve African economies` growth through agriculture led initiatives. The CAADP brings together all stakeholders in agriculture in Africa aiming to deliver 6% productivity in the agricultural sector per year. The programme focuses on land and water control systems, private developments, rural infrastructure and improved trade-related capacities for market access and agricultural research technology dissemination and adoption. As a case in hand the CAADP is completing the TerrAfrica programme, an infrastructure initiative, which levers funds to scale up sustainable land management in sub-Saharan Africa – close to USUS\$ 1 billion disbursed funds to 27 countries ( NEPAD 2015b: 1).

### **3.3.3.2 NEPAD`s Regional Integration and Infrastructure Programme**

NEPAD (2015c: 5) contends that between 2010 and 2012 it coordinated 80 flagship projects addressing energy, transport, ICT and transboundary water, and two projects that address gender. By encouraging regional trade, resource sharing and building mutually beneficial infrastructure, the NEPAD hopes to achieve greater regional integration on the continent. PIDA is the signature programme for the partnership to transform infrastructure access on the continent; other programmes such as the IPPF have seen significant drawdowns with energy and transport receiving 80% of the funds.

### **3.3.3.3 NEPAD`s Climate Change and Resource Management Programme**

Recognising climatic change specifically global warming and its undesirable socio-economic effects on Africa NEPAD plays a coordinating and advocacy role

in promoting measures that counter environmental threats. NEPAD works with countries to factor climate change into development plans, support capacity building programmes, provide technical assistance and help raise funds. The aim is to strengthen skills in adaptation, mitigation, technology and finance to combat environmental change, specifically in the areas of ecosystems, energy and water (NEPAD 2015a: 6).

#### **3.3.3.4 African Peer Review Mechanism**

Africa has been widely plagued with corrupt administrations and regimes that oppress its people and commit human rights violations. This negatively impacted efforts by the AU and other individual member states to attract FDI. The APRM was designed to offer assistance to countries in a bid to strengthen the capacity of member states to ensure good economic and corporate governance, as well as the transparent management of development programmes. The APRM is voluntary and self-regulating and encourages member states' review of each other's policies and practices on democracy, political governance, economic governance and corporate governance. Constituents of elected governments can use peer review results to demand transparency and accountability. The APRM promotes internal accountability on the continent, shifting African states to not just donor accountability but also to their citizens (NEPAD 2015d: 1).

#### **3.3.4 The AU's Financial Institutions**

Oxfam (2012: 23) explains that the AU created three financial institutions in an attempt to spur trade on the continent. The AIB, ACB and AMF each have a specific mandate as set out by the AU. The AIB mandate is fostering economic growth and accelerating economic integration in Africa in line with the broad objective of the African Union. The AMF is provisioned for in the Constitutive Act of the AU; it is to facilitate the integration of African economies through the elimination of trade restrictions and enhance greater monetary integration. The

Fund accomplishes this in part by acting as a clearing house. The ACB like the other African financial institutions is aimed at building a common monetary policy and create the African currency as a way for accelerating economic integration in Africa. These three financial institutions will play a crucial role in shaping the continent as regionalisation deepens. These three financial institutions are evaluated based on the strengths of the concepts and philosophies upon which they have been designed, with most of the financial transactions conducted through the AfDB, NEPAD, individual member states, central and private banks and the AU directly without it utilising these institutions their impact has been limited. It is however worth noting that institutions and governments have been acquiring stock in these institutions and in some instances they have begun transactions and activities. Infrastructure finance will undoubtedly be dependent on the effectiveness of these institutions; a study of the roles of other central banks specifically the European Central Bank (ECB) and Federal Reserve in the US through their Quantitative Easing Programmes (QE) shows that the billions of euros and dollars respectively, they have poured into markets have a huge impact on infrastructure development.

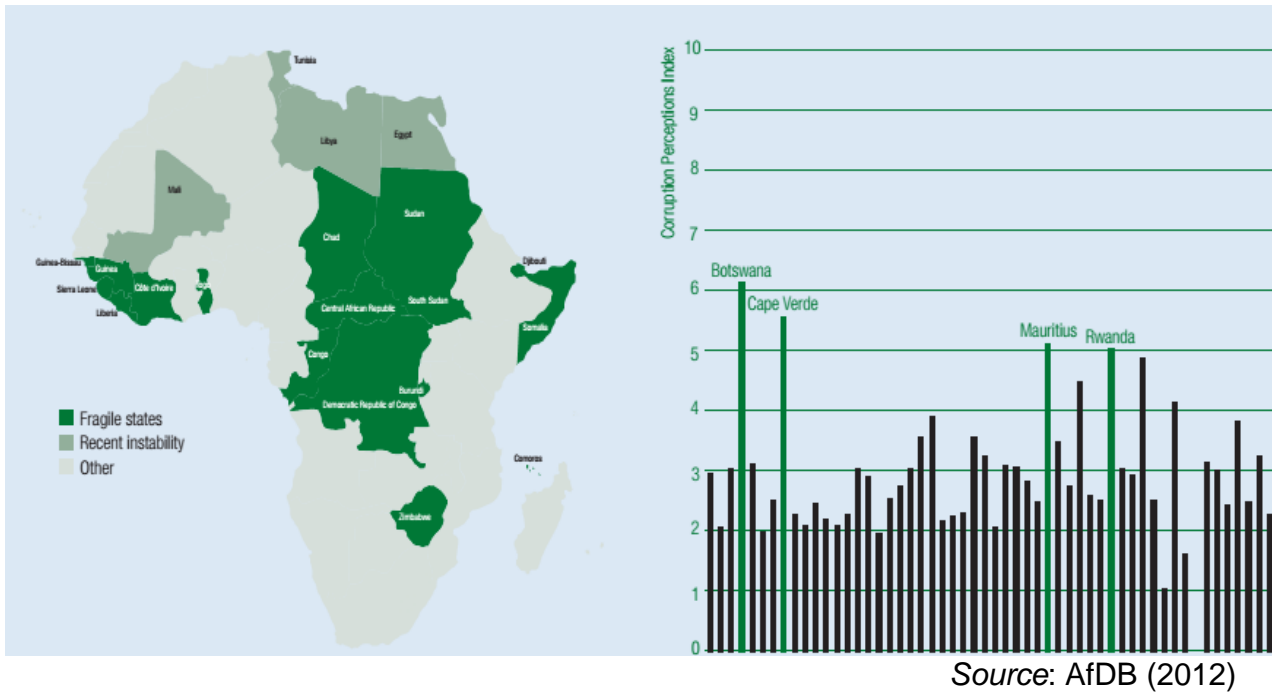
### **3.3.5 AfDB**

The AU (2014:132) states that the AfDB is a group of multilateral development financial institutions. The group consists of the AfDB which was established in 1963, the ADF operationalised in 1974 and the Nigeria Trust Fund (NTF) set up in 1976. The AfDB through giving special attention to national and multinational projects and programmes that promote regional integration supports African countries' economic development and social progress. The group works closely with the NEPAD to reduce the gaps that exist between Africa and the developed world, and to achieve the MDGs. It promotes both public and private capital investment in projects and programmes that are in line with NEPAD's goals to reduce poverty and increase regional integration.

The AfDB is the most influential financial institution on the African continent. Its successes tend to mirror that of the continent whilst its gaps reflect the impediments to true continental transformation. The AU and the AfDB have a shared vision, namely to inclusively transform Africa economically and regionally integrate the continent and stabilise the region politically; this is a unique scenario as financial institutions seldom have common visions with institutions such as the AU. The strategy for the Bank, based on the aspirations of all Africans, notes that development on the continent over the past decade has been uneven and fragile (AfDB 2013: 1).

The AfDB (2012: 8) shows that Africa ranks low globally in terms of the perception of corruption (Figure 3.3.5.1) which is a key indicator of fragility. The AfDB aims to overcome the fragility of the African states, achieve empowering, eco-friendly and inclusive growth – reaching all people, men and women, young and old, and urban and rural citizens - and integrate the continent. These aims will be achieved or supported by five operational priorities, which are - infrastructure development, skills and technology, regional economic integration, private sector development and governance and accountability. Infrastructure development and private sector participation are the cornerstones of the tools the Bank intends to achieve its goals with. The Bank intends to ensure that future generations are least harmed by actions of the current generation through investing and encouraging private sector investment in clean energy sources such as solar and wind. The commitment of the Bank to the environment, the youth and women is reflected in intentions to finance ecosystem services, investment in women and girl's education and training, and through insisting that the projects it funds have a clear youth employment plan that can be reviewed.

**Figure 3.3.5.1 Corruption Perception Index**



The AfDB has identified three areas of emphasis to achieve its strategy and these are – fragile states, as indicated in the figure above, agriculture and food security and gender. The current global economic slowdown is affecting and will likely continue to affect ODA and as such the Bank, is seeking alternative sources to finance these objectives. Structurally the Bank will need to continue evolving to address the dynamic challenges the African continent faces; its decentralisation and result oriented nature are clear signs of its commendable willingness to adapt (AfDB 2013: 23).

The *New African* (2014: 80) contends that the challenges facing Africa which, *inter alia*, include inadequate infrastructure, member states fragility and inequality are surmountable. The AfDB intimates that lack of funding, corruption, lack of bankable infrastructure projects and skills shortages are the main impediments to infrastructure development. The Bank has responded by seeking alternative sources of funding; it has since begun investing in the private sector with the

hope that this will create a cycle of self-sustained investments in this sector. Its investment in CEC Africa Investment, a private company based in Nigeria and Zambia with power operations in Nigeria and pipeline projects across Eastern to Central Africa, is testament to this commitment. Coordinating its efforts with the NEPAD APRM, the Bank seeks to strengthen public institutions reducing corruption and fragility. Directly, the AfDB set up the High-Level Panel on Fragile States which was tasked to research the sources of fragility and make recommendations to the Bank and the wide policy community to tackle fragility and engaging fragile states. The AfDB (2014) states that its total loan approvals in 2013 were US\$ 6.84 billion, 57.6% of the approvals were directed towards infrastructure development. This is a major triumph for policy makers because it indicates that financial institutions have not just realised that infrastructure is a problem but are doing something about it.

Browne (2008:115) contends that the AfDB has had notable successes and likewise challenges. It is Browne`s contention that some of the challenges are inevitably and invariably stark in the history and founding of the organisation. Whilst the researcher accepts the positive theme of the paragraph above, with regards to how the AfDB has evolved and contributed significantly towards funding infrastructure development among other projects, the assertions made by Browne are worth noting. The first challenge that the AfDB had was that it was a financial institution established by poor countries and as such it struggled at its inception to fund its objectives. Subsequently, after being out-performed by the ADF which was open to richer non-members, the AfDB allowed non-members which resulted in it being markedly liquid and effective. Browne (2008) further contends that the underlying environment in which the Bank operates affects its ability to discharge its operational priorities. Poor African leadership, petty wars, dependency syndrome, corruption and persistent natural disasters, notably, hinder the Bank from being fully functional and effective in certain regions. African industrialisation is one of the core areas of focus for the Bank but African leaders accepting unnecessary concessions at the WTO, opening markets to

cheaper developed world goods, guarantee that industry in Africa will never happen, unless an unforeseeable seismic factor comes into play.

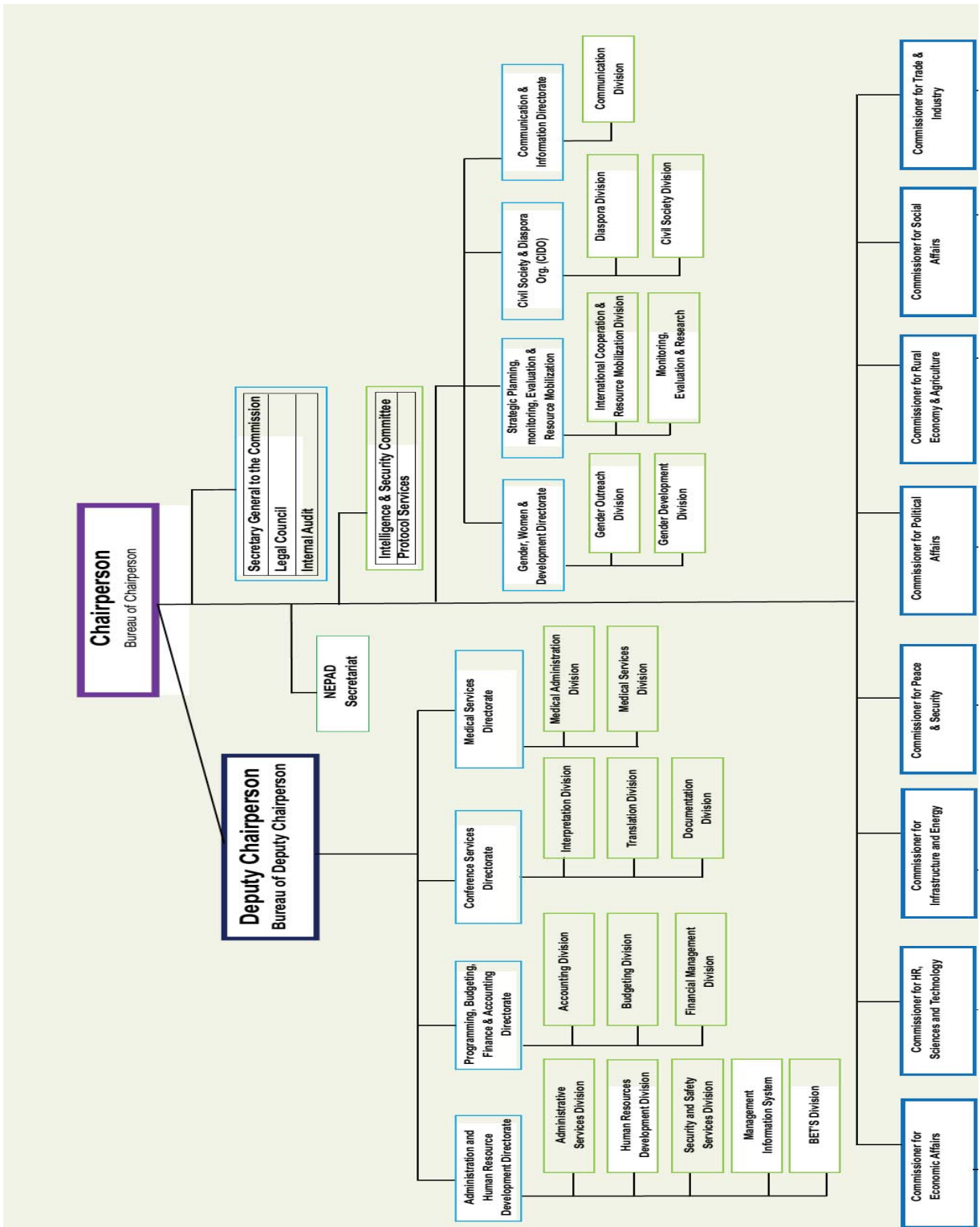
### **3.3.6 AU Commission**

The AU (2014: 48) states that the AU Commission is the main branch of the AU Secretariat and is responsible, under the guidance of the Chairperson, for the AU's executive decisions and daily operations. The Commission has eight commissioners each responsible for a key area as identified by the AU (see Figure 3.3.6.1). The Commission has numerous functions which include, among others, being the custodian of the Constitutive Act of the AU, assisting member states to implement the AU's decisions, coordinate activities between individual member states and international partners, develop capacity, infrastructure and maintenance of intra-continental information and communication technology and mobilise resources and devise appropriate strategies for self-financing, income generating activities and investment for the Union.

Investment analysis focuses on two things, risk and return. Risk is a measurement of the variance between actual and expected outcome. Return is a measurement of wealth generated from assuming risk. The AU Commission has eight departments each headed by a commissioner. Departments such as peace and security and political affairs are crucial in reducing conflicts on the continent which reduces region-wide political risk thereby making transnational infrastructure projects on the continent attractive investments. It is however important to note that elimination of political risk alone does not guarantee foreign and local private sector investment in infrastructure. Financial or economic risk is also crucial and efforts by the departments such as trade and industry, economic affairs, and infrastructure and energy are crucial.



Figure 3.3.6.1 AU Commission Structure



Source: Oxfam (2012)

The AU's Department of Peace and Security has four divisions - conflict management, peace support operations, peace and security council secretariat and the defence and security division, all which contribute to infrastructure development through promoting peace, security and stability on the continent. The core AU department established in 1963 which was designed to bring about political stability and greater stability was the political affairs department. It encourages public transparency, protection of human rights and finding and negotiating African wide best interest positions on the global stage among other things. The Departments of Infrastructure and Energy, and Economic Affairs have aligned functions which are to create an inclusive and integrated sustainable growing economy based on shared infrastructure, sound economic policy, trade and trade policies and any prescribed actions by AU organs such as the NEPAD and the AfDB. Oxfam (2012:55).

Laporte and Mackie (2010:08) contend that the AU, specifically the AU Commission, while having made positive reforms to achieve its agenda of achieving economic and political integration and a number of developmental goals, needs further reforms if it is to continue on this path. It is important to note that in 2009 the African heads of state debated replacing the AU Commission with the AU Authority; this is because the change would give the AU the political tools it would require to enforce decisions taken by the AU. The African integration project is politically motivated as opposed to the European project; as such they should be treated differently by arming the AU Commission or its equivalent with the power to compel member states to adopt and implement African policy. The US, Turkey, Iran and EU, among other states and regional organisations, have sought stronger partnerships with the AU which is to its credit but the AU needs to manage preponderance of donor funds as it raises questions of ownership and legitimacy about the African integration exercise. Shared competencies and the vagueness of the Constitutive Act on the AU Commission's role, powers and distribution of responsibility over other organs prevent rapid integration; all AU organs have the same status meaning that the AU Chairperson has no special role of enforcement. The AU has not expressed

where leadership of the integration exercise should rest – member states, the AU Commission and RECs - all are perceived to have ownership of the project.

### **3.4 AU Infrastructure Development Policies, Programs and Initiatives**

Ankomah (2012: 12) concurs that the successes of NEPAD, more than 10 years since its inception, have been mixed. At its launch in 2001, NEPAD, as a programme, was widely accepted and viewed to be a panacea to most challenges facing the African continent. Today, structurally, NEPAD has evolved with the formation of the NEPAD agency, paving the way for it to operate in a manner consistent with all the other AU organs. NEPAD`s aim is bringing about sustainable development on the continent. Sustainable development can be accomplished through greater trade and co-operation amongst African countries and in order for this to be accomplished NEPAD has listed as its top priority to eradicate the infrastructure gap of the continent.

#### **3.4.1 AU/NEPAD African Action Plan (AAP) 2010-2015**

NEPAD (2011: 7) reiterated that The AU/NEPAD African Action Plan (AAP) is the defining statement of Africa's current priority programmes and projects related to the promotion of regional and continental integration, anchored in the Guiding Principles of NEPAD. The AAP flagship on infrastructure, the African Action Plan Infrastructure priority action plan (PAP), has 80 infrastructure projects across the continent aiming to bring about better economic integration and development. This initiative is utilised to negotiate with international African partners in the financing of infrastructure and to engage the private sector in this endeavour. The AAP identifies Africa`s priorities and strengthens ties with existing partners whilst exploring ways to broaden engagements on the financing of infrastructure on the continent.

### **3.4.2 NEPAD's Short Term Action Plan**

The Short Term Action Plan (STAP) was established in 2002, mindful of the importance of infrastructure development in integrating and combating marginalised African nations. This initiative sought to address key challenges, namely poor operating environment, lack of capacity, absence of investment and skills, identified to be hampering infrastructure development in Africa. The STAP aims to address challenges noted above by mobilising political will and actions, mobilising resources for regional projects, facilitating knowledge sharing programmes and encouraging best practice among others. In its first year, the STAP wielded notable results in the form of, *inter alia*, addressing commercial and contractual issues in the West African Gas Pipeline (WAGP) and setting up teams, structuring financing and setting up project committees in the West Africa Power Pool (WAPP) (AfDB 2003: 11).

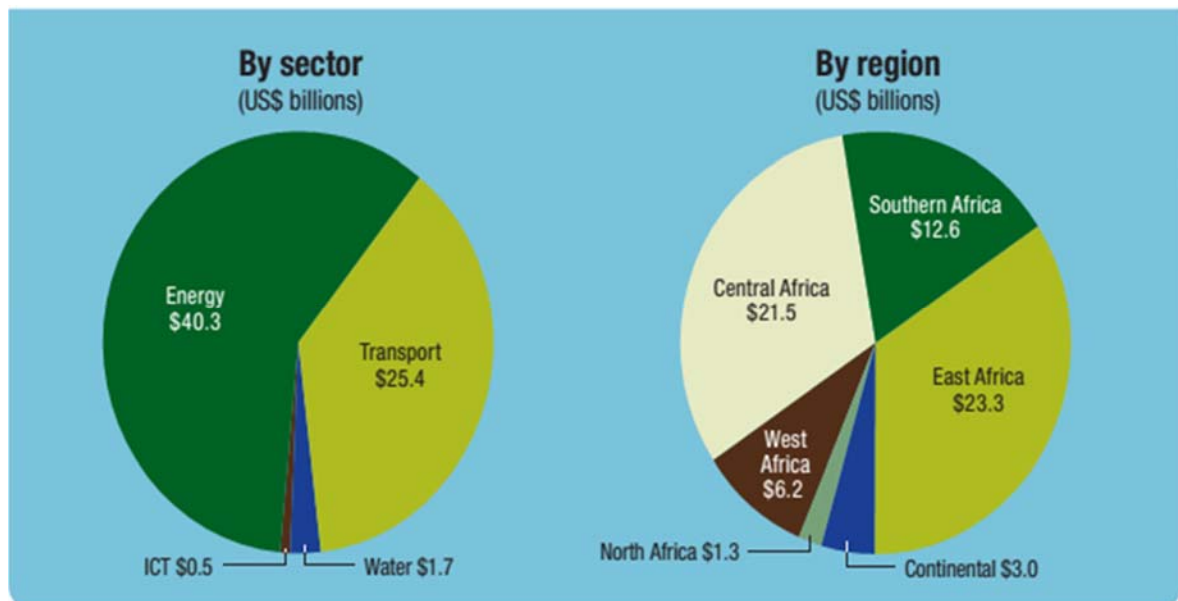
### **3.4.3 The NEPAD Infrastructure Project Preparation Facility (IPPF)**

The NEPAD's STAP formulated the basis for the establishment of the IPPF. The NEPAD is an untied multi-donor fund administered by the African Development Bank. Its goal is to achieve economic growth and poverty reduction in Africa by providing good quality infrastructure. The IPPF assists member states, RECs and other institutions in developing high quality regional and or continental infrastructure projects and programmes and brokering partnerships between public and private sectors aimed at reducing poverty and marginalisation of Africa whilst integrating Africa further. The Facility funds projects presented to it by RECs, member states, divisions of the AfDB and those proposed by the private sector only when there is public sector involvement. For projects to be considered a minimum of 5% of the funding required should be supplied by the project originator. Projects also need to be transnational in nature or have a continental outlook. The AfDB Board of Governors determines allocations and all administrative issues related to the Fund (AfDB 2006: 13).

### 3.4.4 Programme for Infrastructure Development in Africa (PIDA)

The AU (2014:08) confirms the widely accepted assertions that economic development and poverty reduction is being hampered by Infrastructure shortages on the African continent. PIDA is the signature infrastructure transformation programme and it is jointly administered by the AU Commission, the NEPAD, member states and the AfDB. The programme has been incorporated into the new vision for Africa 2063 with new revolutionary projects such as a Cape-to-Cairo high speed rail being included with the other existing projects. Only 28% of the population in Africa has access to electricity, 58% to clean water and 34% to sanitation PIDA was designed to eradicate these challenges. Core to the programme is the formulation of a unified African Economic Community as outlined in the 1991 Abuja OAU Treaty. The AU Commission, UNECA and the NEPAD Planning and Coordinating Agency were instrumental in the formulation of the programme and in its administering.

**Figure 3.4.4.1 Total capital cost of PIDA's PAP by sector and region: US\$67.9 billion through 2020**



Source: AfDB *et al* (2014)

The programme's tenure initially was intended to run up to 2040 but it has been extended with the implementation of the new vision for Africa 2063. From its inception up to 2040 it was expected that USUS\$ 360 billion would be spent on a wide ranging continental and regional Infrastructure projects. About 95% of the expected spending under the programme is targeted at energy and transport projects. The breakdown of the spending under the programme up to 2020 is highlighted in Figure 3.4.4.1 (AfDB *et al.*, 2014: 5).

### **3.4.5 The Infrastructure Strategic Action Plan**

The AU and NEPAD (2010: 13) clarifies that it is the role of the NEPAD Agency to implement PIDA, ISAP and SPD among other infrastructure projects. ISAP was designed to ensure that the various infrastructure projects being undertaken by the AfDB, RECs and individual member states were aligned. ISAP prioritises the consolidation of infrastructure projects with the aim to maximise impact and results. It is a unique platform for all organisations carrying out infrastructure development to integrate and avoid duplication of roles. Member states also use this portal to determine, among the various institutions available, the most suitable for specific projects. Its primary focus is carrying out all processes such as due diligence and assessments which are concerned as part of project planning.

### **3.4.6 The NEPAD Spatial Development Programme (SPD)**

The SPD is designed to yield sustainable economic growth and development through the development of new continental infrastructure projects. Under this programme infrastructure development is facilitated via sharing of best practices, crowding in of investment and rapid planning and delivery among others. This programme is jointly implemented by the AU Commission, AfDB and NEPAD.

Member states take a key role in coordinating identified projects with the assistance of the agencies outlined above (Punungwe 2005: 1).

#### **3.4.7 Presidential Infrastructure Champion Initiative (PICI)**

Zuma (2015: 23) notes that significant gains have been realised with projects that have been adopted by patron states under the PICI. Rwandan and Kenyan Presidents have adopted clean water resources for central and eastern Africa and ICT infrastructure projects for the same region respectively. South Africa has adopted a number of transport infrastructure projects which include the Maputo Corridor, a project that falls under the North-South Corridor. The NEPAD Agency is responsible for coordinating the activities of the PICI. This initiative allows African Heads of State and Government to take ownerships of certain transnational infrastructure projects.

### **3.6 Conclusion**

Buyoya (2006: 165) asserts that it is essential for organisations to continuously redefine if they are to stay relevant in a rapidly evolving globalised world. He notes that there is a real danger for Africa to be marginalised and more of its nations to be fragile if it doesn't negotiate collectively on the international stage, and for member states to continuously engage and assist each other on important issues such as infrastructure development, trade and health care. In this chapter, the researcher introduced the AU its organs and its policies and reviewed how theories on integration relate to Africa.

In the following chapter theoretical and numerical information and data will be used to assess how successful the AU role in infrastructure development has been and whether Africa is indeed and should be evolving along neo-functionalistic predictions.

## Chapter 4

### Assessment of the AU's role in infrastructure development

#### 4.1 Introduction

The MGI (2013: 6) contends that US\$57 trillion must be spent between 2013 and 2030 for current global growth rates to be sustained. The harsh reality is that the desired investment is unlikely to be achieved given the fiscal constraints facing most governments. The US\$57 trillion investment, required over the aforesaid period, is nearly 60% above the total infrastructure spent over the past 18 years and is more than the estimated value of the current infrastructure. It means considerable efficiencies need to be achieved in infrastructure investment to close this gap. In order for this to happen there is a need for assessments or measures to evaluate the successes of various institutions i.e. governments, the private sector and supranational authorities in the delivery of infrastructure.

The World Bank (2014: 15) recognises that the AU has become the preferred partner for most international institutions for addressing Africa's collective development agenda, it has numerous organs designed to fulfil a wide-range of goals. Its two primary goals are achieving greater political and economic co-operation of member states and securing a better economic future for the African people. This chapter, with a specific focus on infrastructure, evaluates the activities of the AU aimed at achieving the aforesaid by using the MGIIDT to measure the success of the AU. The MGIIDT is a multi-step process that prescribes international best practices allowing governments and various other stakeholders such as the AU and EU to assess their own performance against it and pinpoint where fundamental improvements are required.

This chapter compares how the AU has influenced best practices in infrastructure on the African continent and how these have evolved over the past decades comparing them with those seen in other regions on the global stage. Further it looks at the stock of infrastructure on the continent, what state it is in and what

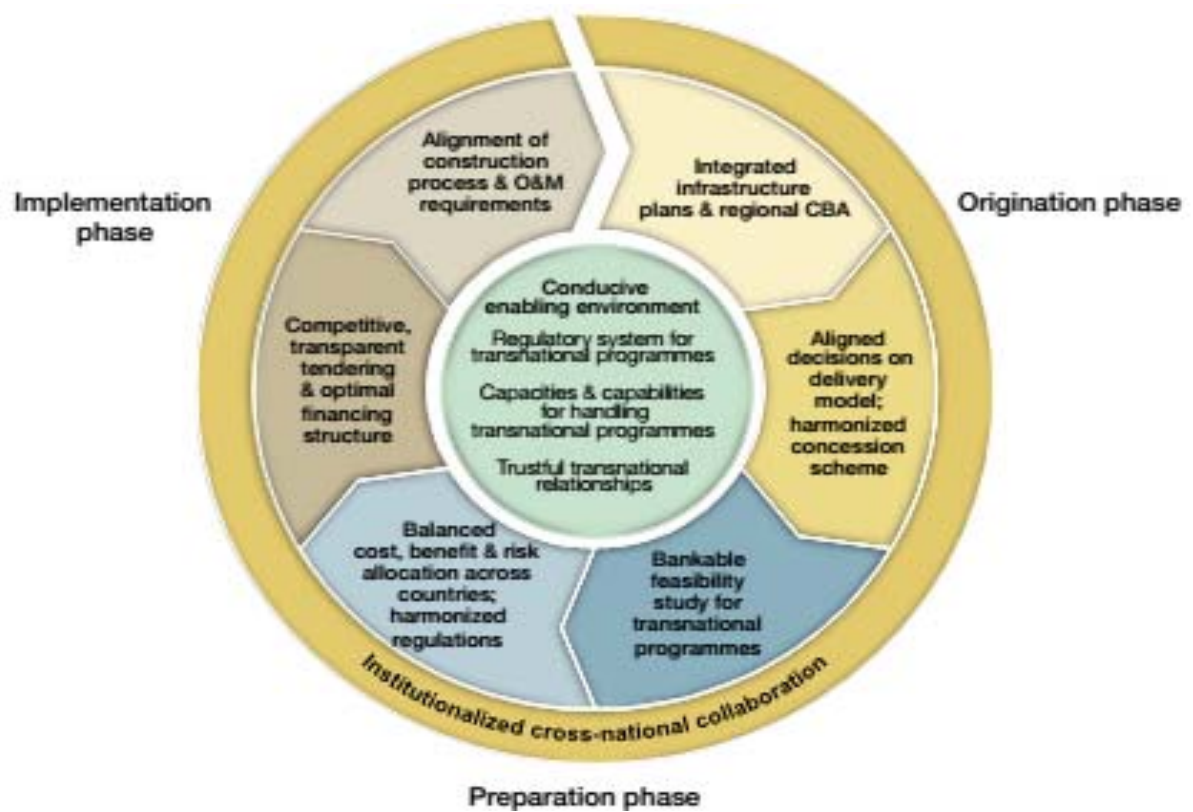


more needs to be spent to meet socioeconomic goals and comparing this with other developing regions such as Latin America and Asia. Crucially, the chapter assesses how Africa performs on delivering infrastructure in five key areas which are namely- project selection, funding and finance, streamlined delivery, use of existing assets and governance and capabilities. This chapter concludes by linking delivery performance with the actual outcomes by looking at whether projects have been procured timeously and as budgeted.

## **4.2 Infrastructure practices**

The MGI (2013: 2) intimates that the right approach in delivering infrastructure is crucial for creating robust economies and the provision of social services. The McKinsey Infrastructure Practice helps various stakeholders determine which projects to undertake, how to develop them effectively and how to maximise existing infrastructure among other things. The WEF and BCG (2014: 26) highlights that national interests are a great impediment in developing a universal Best Practices Framework for Infrastructure Development in Africa. It notes that projects can be identified to be beneficial to one country but negatively impact on another as found with the GERD above. It prescribes that transnational infrastructure developers from the origination stage of projects should seek political consent from all governments affected, develop a cross national feasibility plan or a region-wide Cost-Best-Analysis (CBA). Risks, costs and benefits should be fairly apportioned and in implementing projects suppliers and service providers should be transparently appointed. Mutual understanding should exist between high level officials and technical experts working on the project itself. Lastly all environmental and other similar concerns should be identified and provided for before commencing. Figure 4.2.1 below illustrates the major tenets of an effective best practices framework.

**Figure 4.2.1 Best Practices Framework for Transnational Infrastructure Development in Africa**



*Source: The WEF and the BCG (2014)*

The NEPAD (2013: 3) asserts that PIDA is not just a programme for infrastructure development but also a manual on how infrastructure developments should be implemented. It contends that the practices identified for various projects were reached after deliberate consultations with the AfDB, RECs and other stakeholders and as such represent the best methods for developing transnational infrastructure in Africa. It notes that insights obtained from

analysing the African Regional Transport Network were crucial in developing some of the guidelines it outlined. Soft failures such as non-implementation of trade facilitation measures and trade policies, or ineffective and tangled bureaucracy by member states were some of the key issues unearthed during the process of developing the best practices and which the framework sought to address.

Vagliasindi and Nellis (2009: 25) state that institutional development is half way in Africa. Despite significant strides they found that most countries lack modern institutional frameworks for infrastructure practices. Best practices cannot be developed let alone be implemented without institutional support. The AfDB together with other AU agencies is encouraging RECs to establish strong institutions which are responsible for the development and implementation of economic policy, which includes infrastructure projects under PIDA. This focus on RECs stem from the desire to utilise economies of scale when activities are transnational, encourage harmonisation of laws and regulations in different countries and reduce negative externalities of projects through a sound best practice manual which regional stakeholders have bought into.

The question of best practices looks at the practices themselves, their communication and adoption and how they compare with those of other regions. How does Africa compare in relation to other developing countries in terms of infrastructure delivery. The figure below illustrates that Africa lags significantly behind other developing regions in terms of infrastructure access. The study compares practices in Africa to those of other successful countries such as Singapore and Chile. (The World Bank 2010:27) notes that infrastructure services are twice as expensive in Africa as compared to elsewhere. The reasons are that there are diseconomies of scale, lack of competition and formulated development strategies fail to take into account spatial distribution of economic geography. The infrastructure gap illustrated substantiates the widely accepted fact that infrastructure best practices in Africa are either inadequate or enforceable.

The MGI (2013: 41) contends that best practices need to be the root of planning and decision-making and as such they need to take into account the broader social and economic goals of the region. It indicated that global best practices were one of the most powerful ways to reduce the overall cost of infrastructure in optimising infrastructure portfolios, which are simply to select the right combination of projects. Infrastructure portfolios in Africa could save US\$2.5 billion a year through close co-ordination between the infrastructure authorities of member countries and those responsible for the different types of infrastructure nationally. McKinsey (2013) found that African member states do not implement prescribed economic guidelines uniformly and consistently, as a result African infrastructure lags behind other developing regions ( see figure 4.2.2). As such, best practices are not uniformly implemented; countries such as Kenya, Rwanda and South Africa have submitted themselves for review under the APRM whilst others such as Zimbabwe and the DRC are still to do so. The APRM is an integral part of best practices for infrastructure development as expressed by the AU in PIDA. APRM reviews prescribe national infrastructure solutions to AU member states that are aligned to achieving Africa-wide development goals. Failure by other states impedes the further development and successful implementation of best practices in Africa.

**Figure 4.2.2 Infrastructure Deficit in Africa**

<b>Normalized units</b>	<b>Sub-Saharan Africa low-income countries</b>	<b>Other low-income countries</b>
Paved-road density	31	134
Total road density	137	211
Main-line density	10	78
Mobile density	55	76
Internet density	2	3
Generation capacity	37	326
Electricity coverage	16	41
Improved water	60	72
Improved sanitation	34	51

*Source:* The World Bank (2010)

The US Department of Treasury (2014: 2) intimated that private organisations play a crucial role in developing best practices. It notes that private companies in the Americas, Europe and more recently Asia have greater resources and more skills which can be used in developing best practices in developing 21<sup>st</sup> century infrastructure globally. EPCM companies, international banks and other global companies can play a role in the transfer of best practices in Africa. Accounting firms such as PricewaterhouseCoopers and Ernest & Young can support the development

of national infrastructure balance sheets. Educational institutions can build targeted courses as M.I.T Sloan is doing. In other developing region's local companies and MNC play a crucial role in developing best practices because of vibrant private sectors and well-structured PPP programmes. However in Africa it is a different scenario, there are many barriers for international companies and at times even local companies to participate in the infrastructure sector. As an indicator of how difficult it is for the private sector to do business on the continent, the AU (2013: 9) found that African countries, as an economic block account for

less than 14% of the global GDP and receive only 3% of foreign direct investment. As regards to the global goods trade, the continent accounts for only 1.8% of imports and 3.6% of exports. Intra-African trade stands at around 12% compared to 60%, 40%, 30% of intra-regional trade that has been achieved by Europe, North America and Asia respectively.

The WEF and the BCG (2014: 27) contends that the failure by African nations to develop and implement broad best practices is one of the reasons why the continent's infrastructure lags behind those of other regions. Further the WEF and BCG prescribe the basic tenants or provisions that any set of best practices adopted for the continent's infrastructure should include. Institutionalised cross-national collaboration is noted as an integral element in successfully implementing meaningful infrastructure projects; it allows for the development of a strong unit for programme implementation and operation with special rights and distributes corporate activities fairly across all participating countries among other things. Some of the crucial provisions outlined by the WEF and the BCG (2014) include developing bankable feasibility studies for transnational programmes, competitive tendering and optimal financing structures, a conducive enabling environment and aligned delivery model and harmonised concessions.

### 4.3 Project Selection

McKinsey and Company (2014: 4) identified that failure by most African governments to set clear priorities ends up wasting resources. The MGIIDT prescribes project selection to be the first of five key productivity sources. Project selection strategies or protocols need to be linked to clear socio-economic objectives, a system-wide master plan, system-wide portfolio prioritisation, fact-based standardised project evaluation and prioritising existing assets before new projects are undertaken. This sub-section assesses project selection exercises in Africa and their overall influence on infrastructure delivery and access and how project selection has evolved and compares to selection processes in other regions. Selection is important for example by scaling up best practices in the selection and delivery of new infrastructure projects, and getting more use out of existing infrastructure, nations could obtain a 60 % improvement in infrastructure productivity. Over 18 years, this would be the equivalent of providing US\$48 trillion (excluding the telecoms sector) of infrastructure for US\$30 trillion, a saving of US\$1 trillion a year.

The AfDB *et al.*, (2012: 10) contend that project selection should promote prioritisation of regional goals. Recognising that Africa has limited resources the AfDB is wary of temptations to develop new infrastructure without seeking out new ways to increase the productive capacity of existing infrastructure. In its analysis of best practices, under PIDA, the AfDB found that one of the most powerful ways to reduce the overall cost of infrastructure is to optimise infrastructure portfolios, that is, simply to select the right combination of projects. In Africa it was found that decision-making is not co-ordinated, often decision-makers invest in projects that do not address clearly defined needs or cannot deliver hoped-for benefits. Improving project selection and optimising infrastructure portfolios could save Africa US\$20 billion a year. To achieve these savings, owners must use precise selection criteria that ensure proposed

projects meet specific goals, develop sophisticated evaluation methods to determine costs and benefits and prioritise projects at a system level, using transparent, fact-based decision-making.

The WEF and BCG (2014: 14) contend that both large infrastructure projects and transnational infrastructure face similar challenges which can be put in five broad categories, financial, technical, regulatory, personnel/cultural and governance. However the complexity of the challenges is not the same. For example, to guide its selection of transit projects, the government of Singapore has a clear metric: to support its broad socioeconomic goal of building a densely populated urban state, any project must contribute to the specific objective of achieving 70% use of public transit. In Chile, for example, the National Public Investment System evaluates all proposed projects using standard forms, procedures, and metrics, and rejects as many as 35% of all projects. The organisation's cost-benefit analyses consider, for instance, non-financial costs such as the cost of travel time, and a social discount rate that represents the opportunity cost for the country when its resources finance any given infrastructure project. Final approval rests with Chile's finance ministry, which allocates funding based on a combination of these cost-benefit analyses and national goals. In Africa because the AU is not the supreme the decision-making body and member states are and they finance the projects, prescribed best practices that are designed to achieve regional goals tend to be subordinated to national interests.

AfDB (2006: 5) intimates that project selection is crucial in the development of high quality regional/continental infrastructure and in country infrastructure that has a regional outlook. The NEPAD-IPPF is a multi-lateral fund administered by the AfDB on behalf of the AU and various international stakeholders used to finance project selection and preparation on the continent. The roles of the IPPF including creating projects, aligned to the objectives of the NEPAD, which would be readily financeable by both the public and private sector. In addition the IPPF



is designed to encourage private sector participation in infrastructure. The establishment of the IPPF and its link to NEPAD`s STAP cements the importance of project selection. In a sense the IPPF is a fund established to be utilised to evaluate the worthiness and contributions of any project along with NEPAD`s goals. The importance of project selection is directly mirrored by the strong performance of the IPPF established in 2004; it has issued US\$ 30 million across the regions, supporting over 43 regional/continental projects. This amount may seem insignificant but considering that this fund is specifically for pre-development costs, such as prefeasibility and feasibility studies among others goes a long way in achieving this. The AfDB has approved the expansion of the Fund to US\$ 200 million including a support unit. The IPPF is linked to PIDA with the Funds from it being used to prepare projects that are part of PIDA.

The MGI (2010: 26) contends that private sector involvement influences project selection. It notes that the total capital flowing into the continent grew from US\$15 billion to a peak of US\$ 87 billion in 2007 with a significant portion being directed towards infrastructure. According to the UN (2008) total spending on infrastructure in Africa for 2007 was US\$ 45 billion, a significant portion of it is state funded. PPPs are playing an increasingly crucial role and this has resulted in an increase in bankable and well-structured projects such as the Dakar-Diamniadio toll road in Senegal and the Henry Konan Bedié (HKB) Bridge in Côte d'Ivoire among other projects. These projects are of such a high quality and have been seen to be yielding handsome returns to their developers. This example shows that greater involvement by the private sector is important because it helps direct limited resources towards the development of the most economically productive assets-allocative efficiency.

The AfDB (2012: 1) indicates that its strategy represents the aspirations of the African continent. The Bank is at the centre of Africa`s transformation and aims to improve the quality of growth. Its successes mirror the successes of the African continent and the challenges reflecting impediments to growth. The AfDB provides leadership and finance for Africa`s integration, where infrastructure is

one of the key areas. The AfDB has guidelines which are influenced by its objectives which affect project selection. The Bank aims to bring about inclusive growth and develop green infrastructure. These decisions have seen the AfDB be biased towards infrastructure that is resilient to climate shocks, projects strengthening existing infrastructure, creating ecosystem services and investing in making efficient and sustainable use of resources. Because the Bank aims to achieve more inclusive growth, it embarks in infrastructure development in areas considered fragile, countries such as Zimbabwe, Sudan, South Sudan and the DRC. Typically commercial projects would not be developed in such regions because of greater political risks and weak administrative infrastructures which affect the ability of the built infrastructure to pay back invested amounts. It is difficult to measure how successful the Bank has been in transforming lives of women and children in these fragile states because accurate and verifiable data tend to be scarce but the Bank insists that these projects are vital.

The UN and the MGI (2009: 4) contend that Africa's long-term growth will increasingly reflect interrelated social and demographic changes creating new domestic engines of growth. Key among these will be urbanisation; in 1980 just 28% of Africans lived in cities. Today, 40% of the continent's one billion people do. By 2030, that share is projected to rise to 50%, and Africa's top 18 cities will have a combined spending power of US\$1.3 trillion. This has influenced project selection and infrastructure strategy at state level and continentally. Rural infrastructure development has been neglected with preference being afforded to urban areas; there is a strong argument against this bias because the majority of people still reside in rural areas and quality of life in rural areas is perceived to be better should appropriate infrastructure be delivered. The UN and the MGI in their analysis also found that more than 60% of urban dwellers live in slums without electricity and sanitation.

### **4.3 Funding and finance**

McKinsey and Company (2014: 6) contends that creating a vibrant financial sector, stable economy and an investor friendly regulatory framework are some of the key elements in developing sustainable infrastructure in Africa. The regulatory and financial environment has to support investments, public funding, stabilise and foster an effective framework for public-private partnerships institutionalisation. McKinsey found that investment-friendly environments lower investment costs and are more effective.

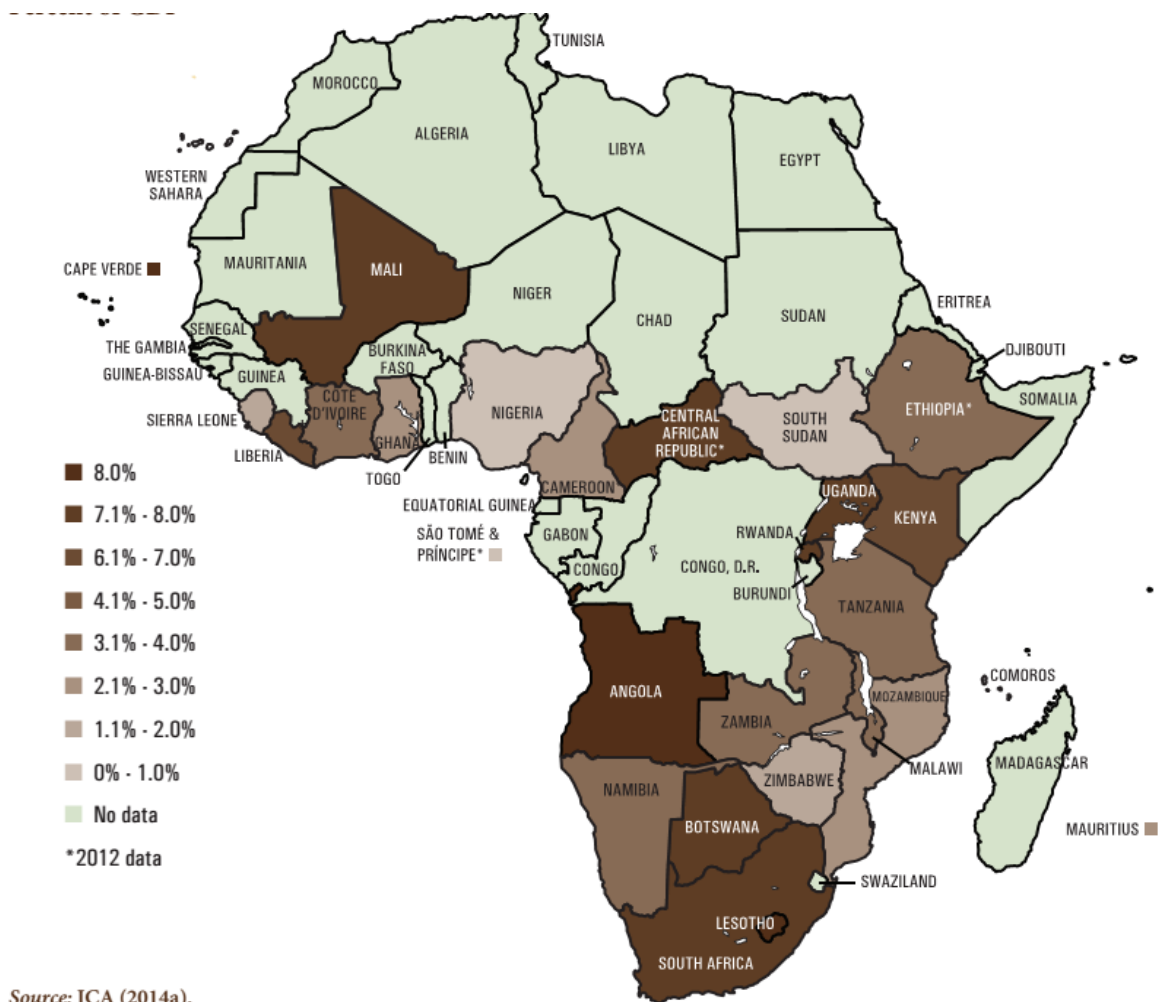
#### **4.3.1 Public Sector Funding of Infrastructure**

Foster and Briceño-Garmendia (2010: 10) found that US\$ 45 billion is spent on infrastructure annually in Africa. Two thirds of the total spent on infrastructure, US\$30 billion, is provided for locally from taxpayers' money and the remainder from foreign sources. The public sector remains the dominant source of finance for water, energy and transport in all but the fragile states. Governments across Africa are committed to improving infrastructure availability; this is evidenced by the ratios of infrastructure spent to GDP which are as high as between 5 to 6%. However in absolute terms because of the sizes of the African economies the spending is still very low, US\$ 20 - US\$ 30 per capita per year. Figure 4.3.1.1 illustrates the National Budget Allocation to Infrastructure in SSA in 2013.

The AU consists of 54 nations it will be remiss if the study assumes that all the members of the union perform equally in terms of infrastructure finance. The AfDB (2012: 21) found that different nations have different goals set out in their infrastructure strategies, some aim to meet MDGs whilst others strive to exceed this minimum goal by establishing 21<sup>st</sup> century infrastructure with the hope that these infrastructures bring about competitive advantages as they compete with other African nations for skilled labour, FDI and trade. These decisions impact on the level of public spending on infrastructure. What is, however, more crucial and apparent in many studies is the influences of colonial legacies on public finance

and management. Havik (2013) conducted a study on how the Portuguese former colonies Angola, Mozambique and Guinea Bissau's public finance culture compares to other African countries and Huillery (2009) looked at how colonial legacies play out in public finance looking at French colonised West Africa. They both found that despite variances between countries attributed to individual governments performance and goals, there is sufficient evidence to justify the conclusion that colonial influences affected levels of public spending and likewise infrastructure spending. British colonies spend more on infrastructure on average compared to their French and Portuguese counterparts.

**Figure 4.3.1.1 National Budget Allocation to Infrastructure in SSA in 2013  
(% of GDP)**



Museru *et al*, (2013: 138) postulate that tax revenue stability influences the level of public finance directed towards infrastructure. Tax revenue as a percentage of GDP differs widely across Africa from 25 % in South Africa to 2.8% in the DRC. These numbers also reflect the variances noted in national infrastructure investment with South Africa being the largest investor in infrastructure and

countries such as the DRC struggling. However an analysis of 37 countries in SSA conducted by Museru *et al.*, (2013) found that between 1980 to 2005 tax revenues and aid in Africa were unstable and had a widely negative impact on public infrastructure investment. In this regard SSA compares unfavourably to China, India and Latin America other developing regions which had consistent growths in public infrastructure investment. Between 1990 and 2007, SSA reduced fiscal annual gaps to between 1.8 to 2%, as a result making available greater public finance for infrastructure projects.

Gutman *et al.*, (2015: 10) contend that infrastructure finance is the purview of national governments in SSA, mostly through SOEs. SOEs have a particularly large role in the middle-income countries, where they account for over 70% of all public infrastructure spending. In Namibia, for example, 90% of expenditure on infrastructure is made by SOEs. The level of public infrastructure investment mirrors the economic development of the country and or region and that region's ability to collect taxes; this constitutes the largest part of government or public revenue which eventually is spent on infrastructure among other things. The stock of infrastructure in a region largely mirrors public spending. Figure 4.3.1.2 depicts the stock of infrastructure in Africa against those of other developing regions.

**Figure 4.3.1.2 Sub-Saharan Africa Infrastructure Stock Vs other Low Income Countries**

Normalized units	Sub-Saharan African low-income countries	Other low-income countries
<b>Roads</b>		
Paved-road density	31	134
Total road density	137	211
<b>Telecommunications</b>		
Main-line density	10	78
Mobile density	55	76
Internet density	2	3
<b>Electricity</b>		
Generation capacity	37	326
Electricity coverage	16	41
<b>Water and sanitation</b>		
Improved water	60	72
Improved sanitation	34	51

*Source: Foster and Briceño-Garmendia (2009)*

Deloitte (2013: 6) found that infrastructure development efforts by national governments have been reinforced by programmes designed to counter the adverse effects of the 2007 to 2009 financial recession. The EU has spent US\$ 200 billion on infrastructure projects since 2007, China US\$ 292.5 billion, Australia US\$ 42 billion, Africa US\$ 51.4 billion and India US\$ 30 billion. These figures clearly show that Africa compares unfavourably to other regions in terms of public infrastructure, because the US\$ 51.4 billion mask the actual distribution of funds spent on the continent. South Africa contributes US\$ 29 billion, followed by Kenya's US\$ 3 billion. Whilst the temptation to compare Africa and India is overshadowed by the fact that India is ranked lowly in terms of infrastructure investment and delivery and as such it cannot be used as a meaningful benchmark.

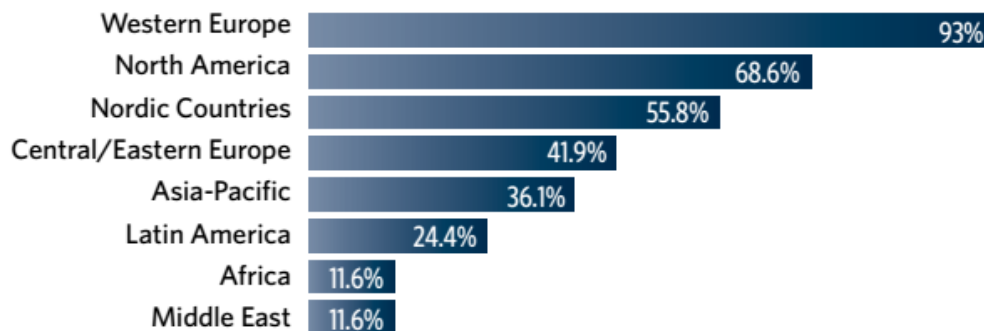
#### **4.3.2 Regulation allowing suitable risk adjusted returns for private investment**

Foster and Briceño-Garmendia (2010: 12) found that many African states have made concerted efforts toward institutional reform in infrastructure to encourage institutional investor participation in this sector. These reforms are half way through and it is worth noting that very few countries possess modern institutional frameworks. The ICT sector has benefited from conspicuous progress in regulations paving the way for suitable risk adjusted returns in its sector whilst other sectors such as transport lag behind. The development of relevant institutions in power, railways and water distribution has stalled because tariffs are low and volumes too low to justify investments. Further, in Africa regulatory authorities lack autonomy, financial resources and skills. The gap between rule or rule and practice is very wide in Africa as compared to other regions. Most African agencies are embryonic, they lack funding and skills. Compared to the US where the Federal Reserve, US Securities and Exchange Commission, US Department of Treasury and various senate and congressional committees are well funded and employ skilled individuals to respond in real time to developments in finance and investment.

Inderst and Stewart (2014: 4) intimate that with most governments fatigued with efforts to stabilise economies in the wake of the global slowdown since 2008 to 2009 recession, alternative sources to finance infrastructure projects not only in Africa but world-wide have had to play a greater role. Institutional investors which include pension funds, insurance companies and sovereign wealth funds from OECD had US\$ 78.2 trillion Assets under Management (AUM). The low interest in most developed economies and the desire by institutional investors to find non-correlated long-term assets make infrastructure investment in Africa an exciting prospect. However regulatory challenges and political risk deter substantial investments. Only 1% of global funds are invested directly in infrastructure because of the lack of profitable infrastructure the world over, Africa included.



**Figure 4.3.2.1 Infrastructure Investor Intentions by Region**



*Source: IPE and Sterling (2013)*

Figure 4.3.2.1 compares European Pension Funds infrastructure interest by region. European institutional investors have invested US\$1.2 billion in African infrastructure and this compares to US\$1.5 billion dollars in Latin America, US\$ 3.8 billion in Asia (excluding Japan & Australia) and US\$ 62.4 billion locally in Europe. Foreign Exchange Rate Risk is a major deterrent for international institutional investors in infrastructure for Africa, it is therefore crucial to streamline regulations to encourage local sovereign wealth funds, pension funds and insurance companies to invest in local infrastructure as supported by the fact that European institutional investors prefer investing greater portion of their funds locally forsaking potential greater returns if they were to invest in say African infrastructure because it typically is overvalued.

The OECD (2012: 48) contends that whilst there is an additional layer of regulatory challenges in Africa; globally there are significant barriers to institutional investors intending to invest in infrastructure. International accounting standards and funding standards such as Basel III discourage or prohibit institutional investors from including long-term, illiquid and riskier assets such as infrastructure in their portfolios. Most African countries have regulations prohibiting pension funds from investing in unlisted and direct investments such as infrastructure projects. These challenges have limited the growth of

infrastructure investment and local innovative regulatory apparatus needs to be erected rapidly or the funding gap in infrastructure now at US\$45 billion will continue growing and investors will also miss out on the higher available projects in infrastructure when they are well structured and successfully executed.

**Figure 4.3.2.2 Institutional Investment in Infrastructure by Region**

	2011			2012			2013		
	Amount	Number	% of total amount	Amount	Number	% of total amount	Amount	Number	% of Total amount
Central America	1 879.20	9	0.9	7 890.00	20	4.0	2 406.00	9	1.2
South America	11 680.60	27	5.4	9 379.80	27	4.7	11 198.50	32	5.5
Caribbean	1 156.00	3	0.5	25.00	1	0.0	52.50	1	0.0
North America	23 589.40	78	11.0	22 102.70	80	11.2	37 711.10	97	18.5
Total Americas	38 305.20	117	17.9	39 397.50	128	19.9	51 368.10	139	25.2
Africa and Middle East	16 870.50	29	7.9	20 717.50	42	10.5	29 335.10	53	14.4
North Africa	0.00	0	0.0	4 488.80	3	2.3	0.00	0	0.0
Sub Saharian Africa	5 786.00	15	2.7	9 403.60	25	4.8	11 032.30	35	5.4
Middle East	11 084.50	14	5.2	6 825.10	14	3.5	18 302.80	18	9.0
Europe	67 443.80	211	31.4	46 298.40	176	23.4	52 715.20	189	25.8
Eastern Europe	15 302.00	21	7.1	9 030.50	21	4.6	13 609.70	27	6.7
Western Europe	52 141.80	190	24.3	37 267.90	155	18.9	39 105.50	162	19.2
Central Asia	570.00	2	0.3	2 914.00	2	1.5	7 960.00	5	3.9
Total EMEA	84 884.30	242	39.6	69 929.90	220	35.4	90 010.30	247	44.1
Australasia	23 382.00	52	10.9	42 566.50	34	21.5	21 614.10	46	10.6
Southeast Asia	14 035.90	41	6.5	13 530.30	31	6.8	13 709.90	53	6.7
North Asia	6 449.60	21	3.0	8 093.30	34	4.1	8 984.00	20	4.4
South Asia	45 925.70	124	21.4	21 643.60	83	11.0	14 916.60	48	7.3
Japan	1 524.10	16	0.7	2 365.50	11	1.2	3 537.80	28	1.7
Total Asia-Pacific	91 317.30	254	42.6	88 199.20	193	44.7	62 762.40	195	30.7
Total Global Project Finance	214 506.80	613	100.0	197 526.60	541	100.0	204 140.80	581	100.0

Source: Groce and Gatti (2014)

Groce and Gatti (2014:124) postulated that institutional investment regulation is a complicated exercise. In order to play this role, policy makers should better understand these investors, the aims of the investors, how their activities relate to the financial system and overall economy, the challenges faced by the various stakeholders to the system established to attain the goals of the investors and those that require the investment. The policy should be able to craft a framework tailored to accommodate said investment needs and adapt it as these needs change. However, Groce and Gatti (2014) found that the lack of transparency,

government facilitation and skills in SSA hamper the development of an effective regulatory framework that encourages institutional investment in infrastructure. Figure 4.3.2.2 illustrates how non-existent, weak and uncoordinated financial regulatory frameworks have impacted institutional investment in infrastructure in SSA.

### **4.3.3 Effective PPP framework**

The OECD (2012: 5) contends that the role of the private sector, particularly PPP, in SSA is limited because of the weak enabling environment. This weak enabling environment is a culmination of a combination of factors unique mostly to Africa; these include weak or inadequate policy frameworks, poor regulations which include tariff setting and procurement, and inadequate public institutions for the management of infrastructure within the region. The OECD states that, in 2007, 20% of the US\$ 45 billion spent on infrastructure originated from the private sector, a 16% increase from 1997 when only 4% of private world-wide investment in infrastructure was directed to Africa. PPPs are very sensitive to events or significant movements in the global financial system, since the financial crisis of 2007; investment in African infrastructure has dried up because it is considered high risk. The OECD (2012) suggests that concerted efforts to transform the financial sector in Africa to levels or standards comparable to North America and Europe are critical if PPP is to achieve its desired goals. Japan and a host of other developed nations recognising Africa as the next growth frontier have been embarking on a number of bilateral and multilateral initiatives for their private sectors to utilise opportunities in infrastructure in Africa, for example through the Facility of African Investment (FAI) and the Japanese Bank of International Corporation (JBIC) which has allowed Japanese companies to invest in African equities, guarantee private Japanese bank loans for transactions in Africa and directly providing local currency funding for infrastructure projects in Africa.

Pessoa (2011: 6) postulates that efforts led by the AfDB to develop and implement an Africa wide PPP framework are undesirable and unattainable because PPP successes are intimately linked to country specifics. PPP comes in various forms, namely short-term service contracts, management contracts, leases, Greenfield projects, concessions and divestures. Different developing regions have been found to favour different forms of PPPs, Latin America prefers divestures with countries such as Brazil and Argentina utilising them the most, and in Asia Greenfield projects are the most widely preferred PPP type whilst in SSA there is mixture of concessions and Greenfield projects. There is a greater need for PPPs to meaningfully contribute towards infrastructure in Africa; the current total on infrastructure is 3% of GDP but if Africa is to maintain current growth then it needs to invest 7% of GDP. The figure below illustrates how various regions have been successful in utilising PPP schemes to finance infrastructure projects. SSA still lags behind other regions with Europe being the most popular region for PPP investments. This figure shows that more efforts are required to develop strong financial markets and improve the quality of regulation and monitoring.

**Figure 4.3.3.1 Regional PPP activity in infrastructure projects (2013)**

	Total (USD millions)	Type of PSI:			
		Management and Lease (%)	Concession (%)	Greenfield (%)	Divestiture (%)
<b>Sector:</b>	<b>785,758</b>	<b>0.1</b>	<b>14</b>	<b>45</b>	<b>41</b>
Energy	260,224	0.0	4	54	42
Telecom	362,194	0.1	1	44	54
Transport	123,553	0.3	57	37	6
Water	39,787	0.3	67	18	15
<b>Region:</b>					
E. Asia and Pacific	186,729	0.0	16	63	21
Europe and Central Asia	118,580	0.1	5	46	49
Latin America	373,592	0.1	17	29	53
Middle East and North Africa	30,958	0.1	25	47	28
South Asia	45,026	0.0	2	90	8
Sub-Saharan Africa	30,879	1.4	12	53	34

*Source: World Bank (2013)*

The Support Programme for Accelerated Infrastructure Development (2007: 3) contends that PPPs have been active in the ICT sector which is the least socially transformative. It notes that PPPs have avoided sectors such as water and transport across most parts of Africa except in a few cases in South Africa and Senegal among other countries where PPPs have been involved with high volume toll roads and bridges along major routes. It was found that PPP participation in infrastructure projects makes them more costly especially areas with weak financial sectors but also results in efficiencies in the development and operation of said infrastructures. The main concern raised by PPP practitioners in Africa is that policy makers are mostly interested in regulating the sector as opposed to promoting it. National leaders mistrust PPP and therefore limit PPP involvement in infrastructure.

Qizilbash (2011: 38) examined how process design features and institutional frameworks affect successful delivery of water infrastructure in Africa. The World Bank (2011) contends that US\$ 16.5 billion a year needs to be invested in water infrastructure for SSA to meet its MDG of clean water provision. PPPs play a crucial role in the provision of clean water infrastructure in Africa but their successful utilisation varies widely by country. Qizilbash (2011) found that a combination of factors which vary by country affect the likely outcomes of PPP. Political climate, support by local stakeholders, institutional framework and contract structuring are crucial. The governments of Mozambique and Tanzania have both tried PPP in the supply of clean water, where in Mozambique government was committed to PPPs' success and the public was used to private sector provision of infrastructure, in Tanzania it was the opposite therefore PPP failed. The effectiveness of PPP across the African continent varies.

Colverson and Perera (2012: 9) compared PPP use in infrastructure regionally. They found that different jurisdictions have diverging PPP approaches and that financial reporting of PPPs was a grey area; all these made valuation of the PPP sectors in different countries and or regions difficult. Europe was found to possess the most vibrant and active PPP sector, where between 2009 and 2010 US\$ 300 billion had been invested. In the US between 1985 and 2010 US\$ 59.5 billion was invested, in Canada and Australia US\$ 35.6 billion and US\$ 31 billion respectively and emerging markets had US\$ 128 billion invested annually by end of year 2007. Africa ranked last in terms of the emerging markets with PPP investment 3 % of overall investment by 2000; at the end of 2009 though, Africa had grown its share of PPP by 7% to 10% of the overall emerging markets' PPP investments.

#### **4.3.4 Financial framework supporting domestic and foreign financial flows into infrastructure**

Beck *et al.*, (2011: 23) noted the litany on how the financial markets in SSA are fragmented and as a result impede inclusive growth on the continent. This phenomenon is in reversal Kenyan, Moroccan, Nigerian and South African banks are expanding rapidly into the rest of the continent bringing about greater integration in the financial sector in Africa. Integration results in greater stability and the systemic banking crisis have dropped from 15 in 1995 to a sporadic outlier in the 2000s. Deliberate isolation by policymakers has protected the African markets from shocks currently experienced in the international markets. The financial framework in Africa is in the process of adjusting to the changes in financial and economic power away from the north and the west towards the east and the south; this is evidenced by the G20 replacing the G7 as the major international policy co-ordination organ. The financial policy framework in Africa has to be cognisant of the fact that traditionally banks were government-owned in North Africa and Foreign- owned in SSA. Despite the many positives recorded above the African financial services sector is still small in scale and volatile, the volatility being a factor of liquidity which reflects the low levels of intermediation in Africa. The policy framework on finance in Africa for attracting both local and FDI has to contend with the colonial legacies; some countries' legal systems are based on common law and others on civil codes. Common law countries have well developed financial markets because common law countries find it flexible and easy to change laws to adjust to changes therefore they are more innovative, whereas civil code countries find adjustment of rules in the financial sector to be tedious and more gradual.

Ncube (2005: 1) contends that a universal analysis of the SSA financial system is near impossible because of the heterogeneity within the sector. Since the beginning of the 1980s most countries have instituted reforms to transform their monetary sectors from direct to indirect. As of 1995, Ncube (2005) notes that most African monetary authorities had removed or were in the process of

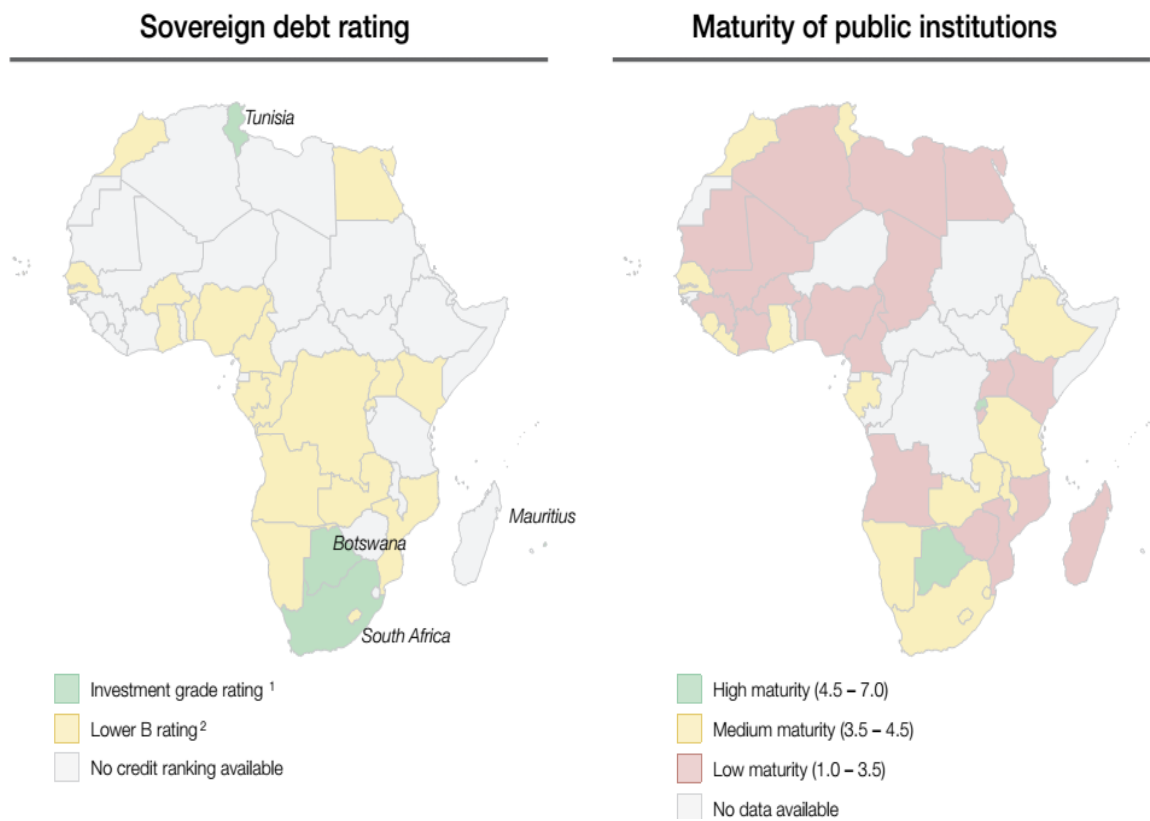
eliminating controls and prescribed targets on interest targets and credit controls. These measures are initial efforts in transmitting monetary and other *quasi* fiscal policies which may be intended to boost, *inter alia*, infrastructure development. Their financial system consists of the banking system, non-banking institutions and the capital markets. In Africa with the exception of South Africa, Nigeria and to a limited extent Kenya all countries have very shallow secondary markets for various forms of financial instruments. The interbank market plays a crucial role in financing economic activities infrastructure; it was found that only Zimbabwe, Kenya and South Africa, and regionally the West African Monetary Union had liquid markets. Ghana, Mali and Tanzania have one commercial bank which controls more than 50% of the markets' assets; as such these markets are allocative inefficient. The AU created the African Central Bank in 1992 with the aim to converge the region's monetary policy but the Bank is underfunded and lacks a strong mandate to transfer final monetary policy execution from member states to central banks.

Macroeconomic stability is important in encouraging long-term investments into SSA infrastructure. The World Economic Forum (2014) believes that the macroeconomic environment is a strong enabling tool; it has it as its 3<sup>rd</sup> pillar of measuring competitiveness. Collectively, the SSA has over 40 currencies which are vulnerable to shocks in the Forex markets. The numerous currencies, illiquid markets, high political risk and high unemployment affect regional wide macro-economic stability. Only four countries in Africa (Tunisia, Botswana, Mauritius and South Africa) have investment ratings, making it difficult for Africa to attract investments from the global financial markets because most countries are rated unfavourably or do not have any rating at all. Figure 4.3.4.1 illustrates the investment ratings of African countries. The World Economic Forum (2014) found it alarming that most countries didn't have ratings, a junk rating is better than nothing because it allows for potential investors to price potential investment, for example struggling debt funds have been acquiring Ukrainian bonds despite the fact that its rating has plummeted. Operationally the possibility of having a contractor being paid for his services in two or more currencies is very likely in



transnational infrastructure development in Africa. Receiving revenue from an asset in one currency and making loan repayments in another always increases default risk. All these identified challenges have been eliminated in the European Union by the use of the Euro and other regions by countries agreeing to use the currency of the dominant nation for instance the Chinese Yuan in Asia and American Dollar in North America. In SSA whilst the ZAR is the strongest currency, there is lack of consensus to use it in regional transactions with the US Dollar being the preferred currency (The WEF 2014: 20).

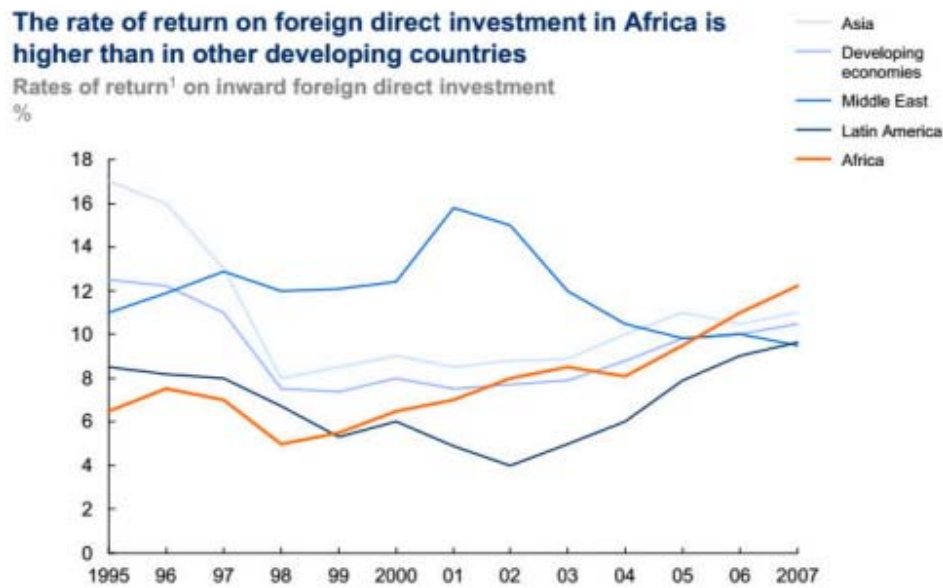
**Figure 4.3.4.1 Sovereign Debt Rating and Maturity of Public Institutions in Africa**



Source: World Economic Forum (2014)

The AfDB *et al.*, (2013: 26) intimate that international regulations and standards such as Basel III have a direct impact on the development and operation of financial markets in Africa. Basel III restricts commercial banks' investment or handling of demand or time deposits in long-term assets such as infrastructure projects. The anticipated effects of Basel III in scenarios where other innovative banking solutions are introduced are a conspicuous reduction in both local and foreign investment in SSA infrastructure. The AfDB notes that international investors have been using a wide array of financial instruments to fund infrastructure projects in SSA for instance Zambian and Ethiopian Sovereign Bonds issued specifically for infrastructure projects. The capital markets in Africa are still under-developed despite significant efforts by RECs, the AU and member states; Africa does not compare favourably with other developing regions such as Latin America in terms of capital markets' width and depth. The MGI (2010: 26) puts a positive spin on the development of financial markets in the SSA; it states that financial services as a percentage of total GDP grew by 8.1% contributing 6% to the overall GDP growth in SSA. Total capital flows towards Africa have been rising; this is due to greater political stability and a stable and consistent average of 4.5% GDP growth rate over the past decade. The increase in FDI is directed to capital inflows perusing the high returns found in Africa see Figure 4.3.4.2.

**Figure 4.3.4.2 FDI returns: A comparison between Africa and other developing regions**



Source: The MGI (2010)

Allen *et al.*, (2011: 1) examine the financial services sector framework in Africa noting how initiatives such as the Monterrey Consensus on Financing for Development has transformed the financial markets in Africa. The Monterrey Consensus encourages potential development investors to utilise capital markets not just in the source countries but destination countries as well. Deliberate policies by member states of the AU to increase FDI has seen growth in the number of stock exchanges from five 20 years ago to more than 20 currently. It is worth noting however that the stock markets are still thin and illiquid with the exception of the South African and Egyptian stock exchanges. In line with the theme of regionalisation, the West African countries have created the first regional exchange headquartered in Abidjan. The derivatives market is worth over US\$ 1 trillion dollars of which Africa contributes a negligible percentage to the overall derivatives trade values.

#### **4.3.5 Attractive overall investment climate**

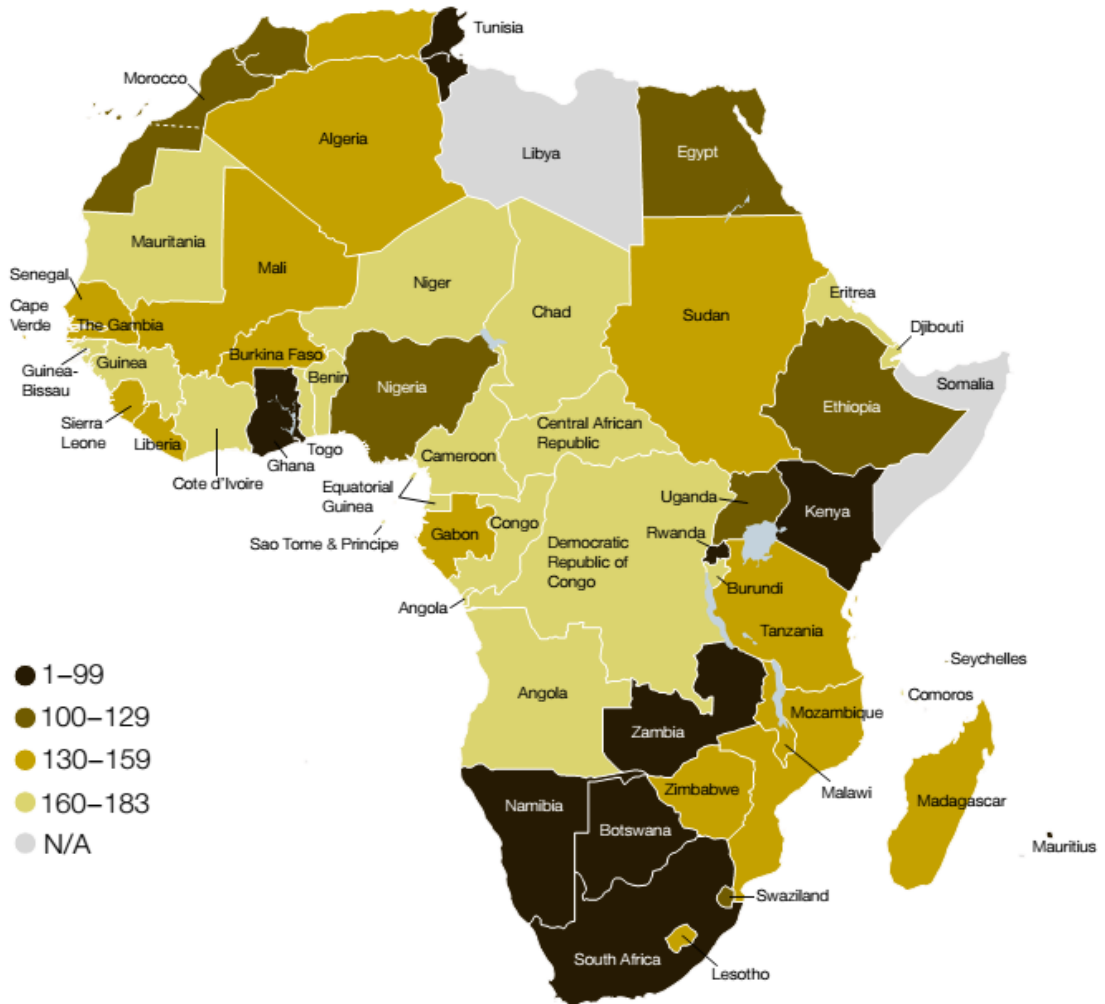
Hattingh *et al.*, (2012: 1) state that the consumer sector in Africa is expected to grow by US\$ 400 billion between 2012 and 2020. This is supported by the fact that in terms of GDP growth Africa is the second fastest growing region after Asia. There are numerous indicators supporting the strong sentiment that Africa presents a unique investment opportunity for both local and foreign investors; the continent currently has over 85 million households with discretionary spending and the figure is set to grow to 128 million by 2030. Compared to the other regions in Africa it has an urbanisation rate of 40% which is higher than India's and 5% short of China's. By 2020 Africa is expected to have 65 cities with a population of one million and above; this presents a huge opportunity for firms to market their goods and various service providers to grow as they service these new metropolis.

Downie and Cooke (2011: 2) caution analysts and various stakeholders in Africa's overall investment climate to be wary of the continent's diversity. Whilst GDP and consumer rates of growth have been phenomenal, the region is still plagued with political and civil unrest. The Arab Spring of 2010 has significantly altered the political landscape in North Africa. Libya and Egypt have seen greater unrest with the political system in Libya crumbling. Tunisia is a democratic state today but events such as terror attacks in the country threaten its way of life and reduce its attractiveness as a destination for business. Moving further south, civil unrest in Burundi and the recent coupe attempts in Burkina Faso show that the region is still far from attaining sustainable stability. There are success stories in countries such as South Africa, Botswana, Ghana and Nigeria in terms of the peaceful transmission of power but these regions still have challenges ranging from weak public administration infrastructure to vulnerabilities and to terror attacks. The AU has been taking leadership in trying to reduce conflict and bring about peace in Africa which is a sign of hope, more recently it has deployed peace keeping troops in Somalia and Sudan. The AU's involvement in ending the coupe in Burkina Faso is one of the successes. The obvious challenge that

stems from the uncertainty in most African countries is that property ownership and rights are always in danger as such some investors feel it is not safe to invest in the region.

McKinsey and Company (2010: 4) found investment opportunities in Africa to be beyond extractive sectors. They reported that Africa's growth was largely being driven by developments in the banking and telecommunication services. Overall the largest sector in Africa is agriculture. Africa has a quarter of the world's arable land but it is responsible for only 10% of the output; this growth potential is a huge investment opportunity. McKinsey (2010) contends that US\$ 50 billion is required for Africa's agriculture to compete with regions such as Latin America that have managed to reduce costs of production and increase output. The banking sector because of the fragmentation discussed earlier is classified separately between North and Sub-Saharan Africa and the assets under management are US\$ 497 billion and US\$ 669 billion respectively and combined they exceed Russia, which is an indication of how well banking has performed in Africa. Despite these successes the banking sector still needs to grow in depth and sophistication. Other sectors such as consumer goods, mining and infrastructure performance has been mixed but opportunities are abundant as the markets are still in its infancy. Oil and gas has been a strong driver of growth with Africa approaching 15% of global production. Telecommunications has seen the biggest growth and had the most transformative impact on Africa. According to McKinsey and Company (2010: 16) Africa currently has over 400 million subscribers and innovative solutions such as Mpesa from Kenya and numerous adaptations across Africa are transforming the way business is conducted.

**Figure 4.3.5.1 Ease of Doing Business in Africa**



Source: McKinsey and Company (2012)

McKinsey and Company (2012: 3) summed up the key factors considered by investors when looking at potentially investing in a region or country. Among the priorities ranked by investors in developing countries the legal framework

defining the rights and obligations of private investors was considered the most critical “deal-breaker”; processes and time frames for issuing licenses or resolving disputes especially those to do with property, stability and enforcement of consumer and project counterparty payments, including those controlled by the government, the availability of credit enhancement or guarantees from government and/or multilateral agencies and independence of regulatory institutions and processes from arbitrary government are also seen as important. McKinsey and Company (2012) conducted research on the ease to do business in Africa based on the factors discussed earlier and ranked African countries from 1 to 183, with closest to one being favourable. The findings of that research are represented in the figure below which conspicuously shows how easy or difficult it is to do business in Africa by country (see figure 4.3.5.1).

#### **4.4 Optimised use of Existing Infrastructure**

McKinsey and Company (2015: 6) note that efficient utilisation of existing infrastructure in Africa could reduce funding requirements by US\$ 20 billion. The MGIIDT assesses whether asset owners are doing all they can to improve existing assets, rather than embarking on costly and expensive new projects. Examples of maximising outputs of existing infrastructure include using intelligent systems to manage traffic congestion rather than building new highways.

##### **4.4.1 Demand management**

The OECD (2012: 56) proposed using a number of case solutions which African nations could adopt to manage demand for infrastructure. It was found that new infrastructure development to curb congestion especially in transport will be congested within five years after commissioning. The City of Seoul (South Korea) is combining improved bus operations, access restrictions and electronic fare collection with an integrated traffic management system to manage congestion.

In Stockholm, for example, rather than going immediately to congestion pricing, for example, the city implemented smaller scale solutions such as smart parking meters that dynamically adjust parking prices based on demand, or real-time traffic information that allows drivers to make better choices about when to take to the road.

California in the US has been using demand management to reduce electricity consumption. The state introduced energy efficiency standards for electrical appliances, set up community awareness programmes to educate Californians about their energy consumption and promote energy efficiency, and adjusted regulated electricity prices to encourage greater efficiency. More recently, California adopted peak pricing as an additional measure to reduce consumption.

In Africa, various demand management tools have been used with various successes, the electronic tolling in South Africa though hugely unpopular with locals was designed to reduce congestion on the freeways, and in addition it is adaptable to charging different rates for different times with the funds being ploughed back into public infrastructure. Eskom has a system that notifies users about the level of consumption and reinforcing to save electricity by switching idle or non-essential electronic equipment off. In Zimbabwe, the Electricity Company has embarked on a national wide campaign to install smart meters to encourage users to use energy efficiently. Various countries have each adopted different demand management tools with varying levels of success; needless to say however efforts in energy management are futile because power shortages are on the rise.

According to McKinsey and Company (2010), Africa is urbanising at a fast rate. Half the population in middle income Africa resides in urban areas and a third of the population in low income or fragile states. Agriculture is the largest sector in Africa and most times agricultural produce needs to be moved from rural areas to urban areas. Understanding current and future spatial distribution is important in understanding and managing infrastructure demand. Sixty-five cities in Africa will have populations exceeding one million, town planners therefore need to create



settlements along major traffic routes or corridors to manage demand. Over 40% of the population is concentrated in landlocked countries, the AU is aware that these populations need access to ports which is why it has supported projects such as the Maputo Corridor. Africa`s population is rapidly growing and the demand for infrastructure such as schools, hospitals, power and energy grow with it; without building new infrastructure most African countries are being encouraged to manage demand through effective and innovative use of new ICTs in providing education and medical services among others (Foster and Briceño-Garmendia 2010:125).

The AfDB and WEF (2013: 41) contend that trade and integration in Africa will shape the demand of infrastructure in SSA. Consistent GDP has been registered in Africa but intra-regional trade is still 10% of total trade for the region. The AU`s goal to transform the continent through trade and integration demands a certain level of infrastructure to be attained across the region. PIDA and PAP PIDA identified essential programmes to sustain current levels of African growth. Within PIDA there are projects to increase the capacity of existing infrastructure; during its development the AfDB and other partners sought to understand population or spatial distribution in an attempt to manage demand by placing new settlements along existing motorways or areas closest to clean water sources.

#### **4.4.2 Increased economic utilisation of assets**

The MGI (2013: 45) shows that the lack of performance pressure, weak regulation and informality in infrastructure construction in SSA has resulted in sub-standard infrastructure with a very limited economic life. Efforts to manage and reduce costs of projects if not methodical and systematic could result in poor workmanship and lead to corruption. These challenges are not isolated to Africa, globally the labour productivity in the construction sector has been flat or has even been falling in many advanced economies over the past 20 years and has trailed productivity in the other sectors. McKinsey and Company (2013) working with asset operators around the world has consistently demonstrated the

potential for operational improvements to extract more capacity from existing assets, particularly in transport. More efficient terminal operations can increase the traffic capacity of seaports by 20 to 30%. Advanced air traffic control technology is allowing more take-offs and landings without adding runways at airports such as London's Heathrow. By contrast, air transport in Africa is limited not by the amount or quality of physical infrastructure, but primarily by the way it is operated; air traffic control and ground-to-air communications are inadequate in much of the region (South Africa and Kenya are exceptions). Addis Ababa, for example, has no civilian radar forcing extra distance and time separation between aircraft landings. Aircraft commonly fly more than an hour over parts of the continent with no ground contact.

McKinsey and Company (2015: 4) contend that regional integration is central to finding ways to facilitate the development of the infrastructure sector and the trade-offs they entail. Integration in the form of power pools and the promotion of renewable generation are game changers that could yield significant efficiencies in infrastructure utilisation and shape the energy landscape in sub-Saharan Africa over the next 25 years. According to McKinsey and Company (2015) regional integration could save more than US\$40 billion in capital spending, and save the African consumer nearly US\$10 billion per year by 2040 as the levelled cost of energy falls from US\$70 MWh to US\$64 MWh. Higher levels of integration would result in larger regional gas options being favoured over some of the smaller in-country solar and wind additions leading to an increase in carbon emissions. If sub-Saharan Africa aggressively promotes renewable sources, it could obtain a 27% reduction in CO<sub>2</sub> emissions; this would result in a 35% higher installed capacity base and 31% higher capital spending (or an additional US\$153 billion).

#### **4.4.3 Total cost of ownership approach to maintenance**

The AfDB (2014: 26) intimates that it is important for lending agencies and national agencies to track unit cost trends in infrastructure because they need to be reflected in their planning. In Africa for instance it is estimated that road maintenance expenditure of US\$12 billion in the 1990s could have saved US\$45 billion in reconstruction costs. The total cost of ownership (TCO) approach is useful in allocating maintenance budgets. A TCO approach between major asset renewals and day-to-day maintenance will minimise costs over the course of the asset life. Denmark for instance reduced its road maintenance costs by 10 to 20% using a TCO approach; similarly Brisbane in Australia uses life-cycle costing and scenario analysis of the condition of pavements to develop four-year funding programmes for the operation, maintenance, and rehabilitation of road infrastructure.

The MGI (2013: 54) found there to be an effective trade-off between day-to-day preventive maintenance and less frequent capital renewals which could reduce the long term costs of maintaining an infrastructure asset. With the exception of South Africa which sets aside money in a fund to maintain infrastructure, most of the SSA do not have a framework or provisions catering for infrastructure maintenance. A TCO analysis of the relationship between the technical state of the asset and the cost of maintenance can identify the “optimal” asset state that minimises long-term costs. As a case the TCO approach helped Denmark reduce the cost of maintaining its roads by between 10 and 20%, increased transparency on the state of the country’s stock of roads and provided an objective means to determine optimal maintenance funding. Using TCO authorities in SSA can accrue similar benefits such as increases in budget allocations to road maintenance and operations which can potentially reduce the maintenance backlog by 70% in Denmark within five years. In a similar fashion, Sweden used a TCO approach to reduce its rail maintenance backlog and cut delays by an expected 15 to 20%.

## **4.5 Streamlining Infrastructure delivery in SSA**

McKinsey and Company (2014: 6) note that efficient delivery of infrastructure projects can yield savings of as high as 25% on greenfield projects, or 15% savings on total infrastructure investment. These savings come from efficiency gains in approval, engineering, procurement, and construction. The MGIIDT looks at the many factors that influence whether projects come in on time and schedule, including permitting and land-acquisition processes, procurement, tendering, and construction-contracting practices.

### **4.5.1 Stringent delivery process**

The AfDB and WEF (2013: 3) state that Africa as a region ranks least of all regions on competitiveness. SSA has a score of four on public institutions, tied last with Latin America. Weak institutions mean the public sector cannot set a framework for the economy to run efficiently. Permit approvals and land acquisition take twice as long as the global average. This alone is a great deterrent to potential FDI targeted at Greenfield infrastructure projects. According to the MGI, land acquisition is one of the time consuming processes. In India for example 70 to 90% of road projects suffer a 15 to 20% delay due to challenges in acquiring land. Regulatory approvals typically take years and these delays can be compounded where environmental groups, local communities and businesses are involved. Best practices such as project prioritisation, transparency on performance and time bound processes (including time limitations of public reviews) have proven to be successful in other regions. Australia has reduced the regulatory approvals time by 11% and the UK energy projects licensing to between 9 to 12 months whereas the EU average is four years. In Africa very few countries have an infrastructure delivery process framework. South Africa, Botswana and Kenya rank highly in terms of regulatory approvals whilst other countries such as Nigeria and the DRC are still lagging far behind.

#### **4.5.2 Best-practice Capex optimisation and advanced contractor management**

An alarming proportion of the challenges impacting on Africa's infrastructure are as a result of a weak best practices application. The approximately US\$17 billion a year lost due to institutional inefficiencies such as bills that remain uncollected and budgetary resources that are not directed to line ministries among others could be avoided by measures such as advanced contractor management. Africa as a region is however trailing other regions in terms of technological readiness, which is a measure of the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with a specific emphasis on its capacity to fully leverage ICTs. The World Bank, AfDB and other partners of the AU in the continent's infrastructure have been encouraging public sectors to build efficiencies into their operations through adopting the latest technologies (OECD 2012: 56).

The MGI (2013: 44) postulates that public-sector infrastructure operators are often constrained by rigid bidding formats and skill shortages such as limited contract-writing expertise. Specifications found in infrastructure development often limit innovation that could cut procurement costs by up to 17%, according to McKinsey (2013). Studies have shown that processes such as demand consolidation, global sourcing and supplier development yield significant cost reductions, for example reducing costs by 20%. While contractors in Southeast Asia and Latin America are following trends established in the developed countries by developing innovative solutions to cut costs and accelerate project delivery, the situation in Africa is mixed. Private companies in South Africa have streamlined processes to reduce costs and project time through advanced techniques such as fabrication but most of Africa lags behind. In Kenya and Angola because China is the main development financier, its agreements are tailored in such a way that construction is done by Chinese companies which have stalled progress for these countries in the construction sector. Whilst North

Africa has led Africa in terms of infrastructure development and processes advancement suffers from the instability that plagues the region.

The WEF and the BCG (2014: 21) contend that some of the challenges that face Africa in establishing and utilising best-practice Capex optimisation techniques and advanced contractor management lie in the history of the continent. In Africa, technical standards such as the rail gauge differ as a result of the colonial history. For instance, most of the southern part of Africa uses cape gauge, while meter gauge is used in some countries in eastern and western Africa and standard gauge is the predominant track gauge in northern Africa. Advanced contractor management also plays an important role in enhancing delivery of infrastructure projects when there is significant investment in up-front planning and design, when design-to-cost principles are emphasised and when the use of lean and advanced construction techniques are maximised. Governments in SSA need to acquaint themselves with best practice and ensure that contracts create incentives for their adoption. Best practice is critical to controlling cost and time over-runs later in delivery, which is especially effective in cutting waste since the costs of design changes rise rapidly as a project advances. McKinsey and Company's (2013) experience with rail operators for instance, suggests that more than 60% of cost over-runs in rail megaprojects can be attributed to changes in project owner or contractor requirements, or changes resulting from reworking inadequate feasibility studies. In SSA, projects are typically publically financed and owned and governments as owners need to structure contracts to encourage design innovation and the development of 'minimal technical solutions', the lowest-cost means of achieving the desired outcome. This however is not the case as governments underestimate the value of these measures and instances where there are considered underfunding gets in the way.

### **4.5.3 Synergies captured across projects**

The NEPAD (2014: 1) contends that infrastructure in Africa is characterised by missing links; these missing links are a result of uncoordinated infrastructure programmes as each country has different priorities in terms of project development. These missing links mean that synergies cannot be captured across projects; the cost to trade in Africa is 30 to 40% because of missing links in transport infrastructure. In the developed world average delays at borders are an hour and a half whereas in Africa border delays on average are a day and in some cases even more. The AU has taken measures to ensure that infrastructure projects complement each other through PIDA. PIDA is expected to cost US\$ 375 billion between 2012 and 2040, investing in well-coordinated projects that will see the continent better connected and fully utilising available infrastructure. These efforts are supported by tailoring legal policy and regulations to reduce gaps between member states' laws and best practices in infrastructure.

## **4.6 Strong infrastructure governance and capabilities**

Efficient project delivery depends on strength in both areas. Whether an organisation attracts top talent and whether there are processes to combat corruption are just two assessments made.

### **4.6.1 Robust institutions and processes for combating corruption**

Wanjala (2012: 3) states that Africa as a continent loses US\$ 148 billion a year due to corruption. This figure represents 25% of the total GDP of the African continent. The UN corruption index (AfDB 2012) also shows that corruption is most rampant in Africa. The perception and reality that Africa is a corrupt continent is one of the reasons deemed responsible for low FDI in Africa. The Brookings Institute (2012) found that the total FDI for all 54 AU countries was

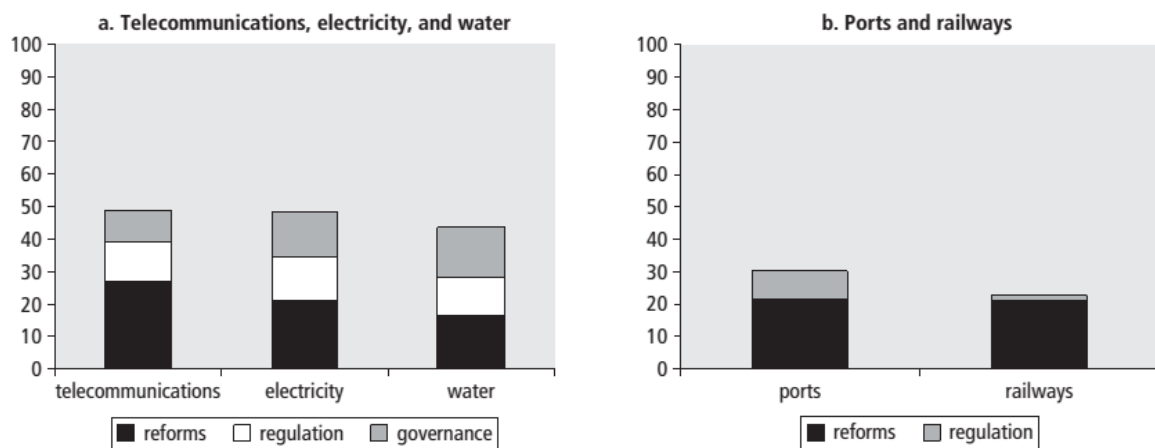
exceeded by Singapore. The African Union Convention against Corruption set up the African Board on Corruption and the United Nations through its various organs and has helped most countries set up Corruption Boards. The challenges that face these Boards are related to independency; typically the Board members are appointed by politicians where after Boards are expected to investigate and prosecute the people that appoint them, this is counter intuitive. Corruption in Africa has been rooted in weak governance and institutions. Most parliaments are not democratically elected and once elected MPs focus on party politics and not representing their constituencies therefore the mandate to fight corruption does not sponsor in most parliaments. There are cases in Africa of countries in which corruption levels have been significantly reduced and strong organs set up to combat corruption. For instance, Botswana normally ranks highly in terms of successfully fighting corruption. The Directorate on Economic Crime and Corruption in Botswana which is modelled along Hong Kong's ICAC has been hugely successful and it is supported by a Presidency committed to a transparent corruption free economy.

African countries are making concerted efforts to reform institutional frameworks in infrastructure. The African continent's heterogeneity makes it difficult to gauge the overall continent wide progress of institutional development. The development of institutions has been sector based, with the ICT being the most sophisticated whilst the transport sector lags behind. Figure 4.6.1.1 illustrates the various levels of institutional development along sectors in Africa. It goes without saying that institutional development is associated with governance. Socialist governments in SSA are earnestly trying to turn around governance of SOEs through regular audits and appointment of strong boards. These efforts are also supported by the involvement of the private sector in a number of PPPs. In Mozambique as discussed in earlier sections successes with PPPs have been experienced with regards to the provision of clean water. The AU through its agencies such as NEPAD, AfDB and RECs has established a modicum of institutional integrity by attaching stringent conditions on loans issued to African



countries which demand comprehensive audits and well-structured boards among other things.

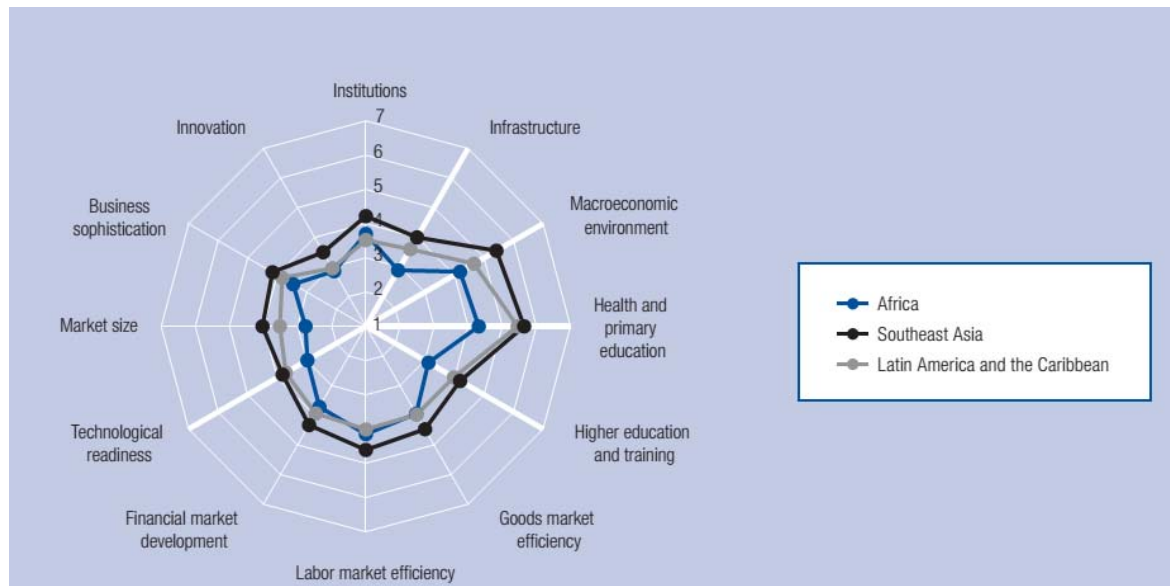
**Figure 4.6.1.1 Institutional Progress across Sectors in Sub-Saharan Africa**



Source: Foster and Briceño-Garmendia (2012)

The World Bank (2013: 7) states that African economies trail the rest of the world in terms of competitiveness. Fourteen out of 20 of the most uncompetitive countries are found in Africa. The World Bank uses 12 pillars to determine competitiveness. The first pillar is institutions and assesses the effectiveness of both private and public institutions in transforming economies and improving quality of life. Political stability determines the effectiveness of institutions. The World Bank (2013) found that Africa has numerous fragile states which is why it has weak institutions. Africa is ranked jointly last with Latin America in terms of quality of institutions. In a 2012 a survey to determine challenges of doing business in Africa the World Bank found that access to finance, inefficient bureaucracy and corruption to be the most frequent answers.

**Figure 4.6.1.2 Africa`s performance in regional comparison**



*Source: World Bank (2013)*

Martin Welz (2014) supports the view that weak institutions in Africa impeded infrastructure development. He argues that the AU lacks a strong mandate to amalgamate policy and institutions under its organs so that it can effectively employ them. These challenges stem from the fact that African countries want to hold on to the status quo and are unwilling to relinquish control of sectors they deem integral to their rule. Figure 4.6.1.2 explains how Africa lags behind other regions in terms of strength of institutions as well as 11 other important pillars of competitiveness determined by the World Bank.

#### **4.6.2 Strong governance framework**

The WEF and the BCG (2014: 23) highlighted that governance related issues are often found in all transnational infrastructure projects but in Africa these are magnified because the sizes of countries on average are very small, there are numerous landlocked nations and a large number of border countries. The

governance challenges relating to African transnational infrastructure development include difficulties in aligning distinctive national agendas and ensuring that all nations have appropriate ownership of the programme. Additionally, there are challenges that relate to coordinating responsibilities within and between the participating countries, overcoming national interests, managing political risks and structuring effective supranational organs to oversee the development of the projects. The Central Corridor, which is sponsored under PIDA, involves five countries, Uganda, the DRC, Rwanda, Burundi and Tanzania. These countries typically struggle with co-operation, for instance between the DRC and Rwanda, where Rwanda is accused of sponsoring rebels fighting in parts of the DRC.

Gibb (2009:710) found that the governance architecture in Africa is counter intuitive; RECs set regulations that prohibit integration and co-operation of countries that fall under different RECs. The political institutions of the AU have limited political power to ensure good governance. The AU relies on AU member countries to carry out its decisions. Fragile states on the continent often give low priority to AU mandates especially in cases where they are not directly aligned to their current Agenda. The challenges that the AU faces in improving governance or effecting measuring improvements stem from financing. Fayissa and Nsiah (2013) found that good governance or the lack thereof affects economic growth differently based on levels of income. They found that middle income countries are less affected by governance as compared to either high or low income countries. The African continent is home to most of the poorest countries which explains why governance issues rank highly, weak governance frameworks are adversely affecting infrastructure delivery and economic growth.

### **4.6.3 Mechanisms to foster a collaborative environment between involved parties**

The MGI (2013: 63) identified six traits which it deems integral to an infrastructure system being effective. Four of these traits relate to a collaborative environment amongst stakeholders in the infrastructure sector. The performance of African countries in these four traits varies.

The first trait relates to close co-operation between various agencies or organs responsible for different types of infrastructure, for instance between road and port authorities working together under a framework designed to achieve certain socioeconomic targets. In Africa, Rwanda is a good example of a country that is transforming its infrastructure because its infrastructure development coordinates and directs the efforts of various departments such as transport and water whilst working with the finance department for funding. Globally, Singapore, Japan and Hong Kong (China) have established competitive advantages in infrastructure by ensuring that their various agencies are co-ordinated and guided by a clear policy.

Greater co-operation can also be fostered when there are clear separate responsibilities between politicians and technocrats; this avoids duplication and conflict between the two. The groups work more closely and effectively when they know what is expected of them and if they are addressing areas they are equipped to tackle. Most commonly in Africa the distinction between stakeholders is made along the public and private sector, this tends to create a problem where the two do not collaborate or think they are on opposite sides. The government needs to create a forum where the private and public sectors engage each other on issues relating to infrastructure development.

The AfDB through the IPPF has been one of the major facilitators for public and private engagement on infrastructure. Lastly, trust based engagement is key if Africa is to overcome challenges responsible for the infrastructure gap. Transparency, education and fair compensation are some of the basic tenants of

trust based engagement. Lack of trust can have serious consequences; in Brazil construction of the third largest dam in the world along the Xingu has been bogged by 15 lawsuits. Similar problems have been experienced in Africa, for instance, with the GERD in Ethiopia; the Ethiopian government was able to resolve it by changing the public mood of the nation through emphasising the economic benefits of the project and enlisting the World Bank to assist with the compensation processes.

#### **4.6.4 Robust infrastructure data and strong capabilities**

The MGI (2013: 67) notes that infrastructure systems need high-quality, timely information to enable the effective planning and delivery of services or products and efficient operations and public scrutiny. In Africa, fragile states seldom have the capacity or will to gather information infrastructure stock, finance and needs. In fact lack of reliable data and information pertinent to investment processes is always sited as a major deterrent for investment in Africa. In Africa, there are wide disparities between countries South Africa, Kenya and Nigeria among other countries that have submitted themselves to the APRM as they have readily available data whereas information for countries such as the DRC, South Sudan and Somalia is difficult to come by. The AfDB and NEPAD are leading efforts to generate reliable data on infrastructure, finance and other economic indicators for the entire continent, part of the Fragile Countries Fund has been earmarked for this purpose. The AfDB has been producing continent wide reports on the state of infrastructure with the WEF in order to improve infrastructure delivery on the continent.

#### **4.7 Conclusion**

This scrutiny of infrastructure in Africa focused on a number of key aspects of performance within five areas. Infrastructure was assessed amongst member states of the AU, according to regions and over time. It is important to understand

why this section is vital; fundamental change is only possible with a clear view of current performance compared with best practice. This opportunity to determine the current scenario of infrastructure in Africa and putting it into perspective so that it can meaningfully be utilised is useful to the numerous stakeholders in the sector.

The next chapter summarily concludes the study. It includes a rationale for the study, the methodological and analytical framework, the findings of the study and recommendations.

## Chapter 5

### Findings, conclusion and recommendations

#### 5.1 Introduction

This study examined the role the AU, as a supranational body, has to play in the financing of infrastructure across the African continent. The MGI (2013: 1) states that the litany of infrastructure challenges across the world have been well documented. Infrastructure development is critical more so in Africa because of the level of the continent's development and its current transformation exercise. The OECD (2012: 8) contends that appropriate infrastructure development is critical for economic growth and poverty reduction, with the potential to add 2 % to the continent's GDP (\$ 1.6 trillion in 2008 According to McKinsey and Company 2010).

Chapter 1 introduced the AU and infrastructure development on the continent. In this section the aim of the study was stated, as to assess the AU's transformational activities in the context of infrastructure finance. Critically the study evaluated theoretically and in practice how the AU has evolved, mirroring the development of the AU to infrastructure finance on the continent.

Chapter 2 using two cases, the GERD and the RFHP, looked closely at the infrastructure challenges and successes in Africa. The enabling environment was covered in this chapter with a look at growth in the region. The study assessed the infrastructure gap in Africa in an attempt to put into context how Africa has struggled and lags behind in terms of infrastructure delivery. Lastly this chapter evaluated the various forms of funding models and partnerships for financing infrastructure in Africa.

Chapter 3 focused on the relationship between the AU and infrastructure development. Concepts and principles used to explain the founding of the AU were linked to the conduct of the Union in infrastructure finance. This chapter looked at various organs of the AU and discussed their activities in financing infrastructure. The neo-functionalist theory was engaged to explain the evolution of the AU and explain how the integration of the African has progressed.

In Chapter 4 the MGIIDT was used to assess the status and delivery of infrastructure on the continent. The MGIIDT focused on five key areas, Project selection, existing infrastructure use, Streamlining delivery, Strong infrastructure governance and capabilities and Best practices in infrastructure. Combined these five give a comprehensive picture of not just the infrastructure status but provide a stern barometer of measuring the efforts of the AU in financing and providing infrastructure to Africans on the continent.

## **5.2 Rationale for, research question and aim of study**

The OECD (2013: 8) intimates that other developing parts of the world such as China have anchored the development of their countries and poverty reduction exercises such as industrialisation on massive infrastructure investments. Being mindful of the fragmented nature of the continent's countries and their small populations and economies, massive infrastructure projects cannot be instituted unless regionalisation under the AU is meaningful and successful. According to the McKinsey Global Institute (2014) the size of the most African economies cannot support infrastructure investments above \$ 100 million. The rationale for the study was the recognition that infrastructure is important; the AfDB has listed infrastructure development as one of its pillars for transformation of the African continent. Recognising the importance of infrastructure and being mindful of the sizes of African economies shifts the burden of infrastructure development i.e.



transnational infrastructure development from individual member states of the AU to the AU itself.

Furthermore the study as determined by the research question and aims went beyond just infrastructure finance and the AU. It looked at the histories of both the AU and infrastructure finance relating them to each other and assessed the conformity of African integration to existing theoretical classifications. The Practice of politics in Addis Abba ought to meaningful transform Africa, economically, culturally and politically. The UN (2015) states that the total global population of people living in poverty is 700 million and of those half reside in Africa. The President of the World Bank Jim Yong Kim (2015) confirmed that the biggest challenge in Africa is to make current growth become more inclusive and transformative in terms of poverty reduction. The rationale for the study therefore was to use infrastructure finance as an indicator for the AU's development and transformative efforts.

### **5.3 Methodology and analytical framework of study**

The study recognised that regionalisation is not a recent phenomenon. The research investigated the importance of the AU in infrastructure finance noting that it is difficult to reliably measure performance in the delivery of infrastructure. As an analytical tool the study relied upon the MGIIDT. The study used the MGIIDT to describe how the AU has influenced member states *inter alia* best practices in a assessing the region's performance in infrastructure development.

Case studies and literature reviews were integral elements of the study in determining the completeness of the African integration endeavour and the efforts of the region to transform its infrastructure sector.

## 5.4 Findings of study

- The analysis of the Constitutive Act, upon which the AU is founded and its organs and operations guided, indicate a loose fit between the neo-functionalistic integration theory and how it applies to the AU. The AU was found to be political union first and economic union second.
- The view that the AU is a loose fit to the neo-functionalistic integration is supported by the gradual shift in power from member countries to the continental power especially in technical areas such as climate control policy and services and infrastructure finance. The study found that the AfDB an organ of the AU is the single most powerful financial institution on the continent with 40 % of its portfolios invested in infrastructure.
- The study found that public finance is still the largest financier of infrastructure in Africa. Neo-functionalism typically understates the role of individual states in technical areas such as infrastructure finance but the AU in unprecedented and innovative fashion styled the Constitutive Act to recognise and thereby take responsibility for individual states' activities, infrastructure finance and development; this also includes independent actions of the RECs.
- The African continent lags behind all other regions in terms of infrastructure finance. Broken down into the key five areas of infrastructure supply which are Project Selection, Use of existing infrastructure, Governance framework and capabilities in infrastructure, Finance and Financial Framework, and Streamlining delivery, the AU has improved markedly on infrastructure access

across the continent but the continent still ranks least in all five indicators.

- The roles of the AU in infrastructure finance in Africa were found to be the facilitation and co-ordinating of transnational infrastructure projects between or amongst member states; the origination and funding of the AU led infrastructure projects on the continent, the funding of member states originated projects, the structuring of partnerships between itself and member states with international stakeholders in African infrastructure, the creation of a stable and enabling environment for private participation in infrastructure, and creating financial institutions and frameworks to encourage infrastructure finance.

## **5.5 Implications of findings of study**

- The findings of the study support Gibb's (2009) views that integration in Africa was understudied and more research was needed to fully understand how the AU has and is evolving. The AU as has been indicated above is a political union first and as such this means that neo-functionalism is not a perfect fit in explaining African regionalisation. Further studies, perhaps by people local to the continent need to put forward African-centric integration theories which will better apply to the continent.
- The AU's ability to bring about political unity and stability are conspicuous. The number and severity of coup d'états has declined significantly and efforts to resolve them once they occur are more methodical, the recent case in Burkina Faso where the AU played a

key role in mediating and temporarily suspending the country from the union when the coup d'état's leadership was in control is a good example.

- The AU is still underfunded with the larger portion of its projects funded by donors. The biggest expenditure of the AU is its peace and security exercises which are financed by the UN and other well-wishers. Most organs of the AU such as the PAP and the ACB have not been effective in financing, formulating rules and regulating the finance and infrastructure sectors. It is common in Africa for member states to ignore obligations or regulations of the AU without consequences. This was found not to be the case with the EU because of the powers of the EU commission to direct individual member states and levy biting sanctions when member states are out of line.
- The fragmented nature of countries on the continent contributes to the high number of states and Africans living in fragile states. Because these nations lack the resources, political will and expertise to develop appropriate infrastructure for their people, poverty is rife. The integration of Africa needs to be accelerated, perhaps along the lines of the United States of Africa so that public goods and services can be accessed by all Africans.

## **5.6 Conclusion of study**

The African continent in the past has been labelled as the dark or lost continent. The rapid growth experienced in the continent over the past decade and genuine efforts by most governments to transform the image of the continent are starting

to pay off with the continent being viewed as the next frontier for global growth. The population on the continent is rapidly growing and urbanising; combine this with the fact that Africa is endowed with a great deal of natural resources gives one reason to be optimistic about the future prospects of the continent. The continent requires infrastructure to support regionalisation efforts. Asian countries, for example China, have shown that massive infrastructure investment can be the backbone for industrialisation and poverty reduction. China invests over 14 % of GDP in infrastructure development; it has built an impressive network of roads, high speed railways and airports cutting travel times across its vast territory. The AU recognises the importance of infrastructure in facilitating intra-African trade, regionalisation and creating employment which is why it has mandated the NEPAD, AfDB and AUC to develop a framework for the development of infrastructure projects under programmes such as PIDA and STAP. The harsh reality is that the fortunes of the AU have been mixed. The AU has failed to stamp its authority on infrastructure delivery on the continent in part because it is underfunded and it has weak or contradictory mandates. The Constitutive Act states as one of its goals protecting the sovereignty of member states creating a conflict when its position contradicts a member state's position.

The neo-functionalist theory clearly states that economic and technical interests instigate the formation of the supranational power which then is inevitably followed by political unison. This has not been the case in Africa where political factors initially brought the continent together and now both economics and politics play a crucial role. In a purely neo-functionalistic structure all institutions of the supranational authority are clearly structured reporting to one body, this seems not to be the case in Africa. The AUC is the plausible chief of the AU but it has no ultimate control of all the organs that are supposedly under it, in fact the Constitutive Act ranks all the organs equally and the AUC Chairperson for instance cannot remove or appoint the head of NEPAD or the AfDB.

The study found that for some countries regionalisation is a matter of survival. All signs point to the fact that Africa will be better off united. Infrastructure supports

integration and integration requires infrastructure therefore infrastructure development should be afforded the highlighted priority.

## **5.7 Recommendations for future research**

The research ventures the following recommendations for future research

- Funding is a critical factor in infrastructure development and ensuring that the AU is an effective authority, investigations into innovative and alternative sources for it to be capitalised are imperative
- Despite the profound colonial influences i.e. common law and civil code, the African people have a unique culture and heritage which is reflected in the manner they set up their governance systems, relate to each other and communicate. These demand appropriate Afrocentric theories of integration to be investigated and put forward to explain and guide further integration efforts on the continent.
- The gradualists argue that forcing a political union on the peoples of Africa is unsustainable; they argue that fragile states need to be allowed to develop. This though however seems to be counter intuitive, studies have shown that countries with big populations tend to be both economically and politically stable. Perhaps it is worthwhile considering potential outcomes of a political union and how it could transform livelihoods across Africa.
- Private sector participation is undoubtedly needed in financing infrastructure in Africa and unlocking further growth prospects in all the other sectors. Further studies need to be conducted to determine innovative or encouraging private sector investment in critical sectors of economies and maximising their impact.

## **5.7 Conclusion**

Pan-Africanism should influence the political, economic and value systems for transforming the African continent. Infrastructure development is central to all integration efforts as such an appropriate infrastructure framework should be developed and prioritised. The AU needs to be sufficiently financed and given strong mandates to effect changes in the everyday lives of Africans. Almost all governments on the continent are riddled with corruption allegations but to date the AU has faced very little or no corruption allegations. The trend has been set but it is time to give great impetus and momentum for oneness in solving African challenges through the AU.

## Bibliography

Adi, H. and Sherwood, M. 2003. *Pan African History: Political figures from Africa and the Diaspora since 1787*. London: Routledge.

AfDB (African Development Bank). 2013. *Project Appraisal Report: Rusumo Falls Regional Hydro Power*. Abidjan: AfDB.

- 2014. *Study on Road Infrastructure Costs: Analysis of Unit Costs and Cost Overruns of Road Infrastructure Projects in Africa*. Abidjan: AfDB.
- 2003. *NEPAD Infrastructure Short-Term Action Plan (STAP) Review of Implementation Progress and the Way Forward*. Abidjan: AfDB.
- 2006. *NEPAD - Infrastructure Project Preparation Facility Special Fund (NEPAD – IPPF Special Fund); Operational Guidelines*. Abidjan: AfDB.
- 2015. About Us. Available from: < <http://www.afdb.org/en/about-us/> >. [20 August 2015].

AfDB (African Development Bank), OECD (Organisation for Economic Co-operation and Development) and UNDP (United Nations Development Programme). 2014. *African economic outlook. Global value chains and Africa's industrialisation*. New York: AfDB, OECD and UNDP.

AfDB (African Development Bank), NEPAD (New Partnership for Africa's Development) and AU (African Union). 2012. *PIDA: Interconnecting, integrating and transforming a continent*. Addis Abba: AfDB, NEPAD and AU.

AfDB (African Development Bank), World Bank and WEF (World Economic Forum). 2013. *The Africa Competitiveness Report*. Geneva: World Economic Forum.

African Monitor. 2012. *Rural Infrastructure in Africa unlocking the African Moment*. Cape Town: African Monitor.



Africa Pulse - World Bank. 2013. *An analysis of issues shaping Africa's economic future*. Washington: World Bank.

Alemu, A. 2013. The Nexus between Governance Infrastructure and the Ease of Doing Business in Africa. *International Journal of Global Business*. 6(2): 34-56.

AU (African Union). 2014. *African Union Handbook 2014*. Addis Abba: AU and New Zealand Ministry of Foreign Affairs and Trade.

- 2015a. *Assembly of the Union Twenty-Fourth Ordinary Session, Decisions, Declarations and Resolutions*. Addis Abba. AU.
- 2015b. *Executive Council Twenty-Sixth Ordinary Session Twenty-Fourth, Decisions, Declarations and Resolutions*. Addis Abba. AU.
- 2014a. *Press Release N.155/2014. Key African Ministers Meeting is held to chart the way forward on infrastructure and Integration*. Addis Abba: AU.
- 2014b. *Agenda 2063: The Africa we want*. Addis Abba: AU.
- 1999. *Fourth Extraordinary Session of the Assembly of Heads of State and Government, Sirte Declaration*. Sirte: AU.
- 2001. *African Union Constitutive Act*. Addis Abba. AU.
- 2015c. AU in a Nutshell. Available from: <<http://www.au.int/en/about/nutshell>>. [22 August 2015].

AU (African Union) and NEPAD (New Partnership for Africa's Development). 2009. *The AU/NEPAD African Action Plan 2010-2015: Advancing Regional and Continental Integration in Africa*. Addis Abba and Johannesburg. AU and NEPAD.

Artelia. 2013. *Environmental and Social Impact Assessment Report of the Rusumo Falls Hydroelectric Project*. Addis Abba: ARTELIA.

Badejo, D. L. 2008. *Global Organizations: The African Union*, Series Editor: Peggy Kahn, University of Michigan-Flint. Michigan: Infobase Publishing.

BCG (Boston Consulting Group). 2014. *Beyond Budgets: The real Solution to the Global Infrastructure Gap*. Boston: BCG.

Beck, T., Maimbo, S., Faye, I. and Triki, T. 2011. *Financing Africa Through the Crisis and Beyond*. Washington: World Bank.

Browne, R.S. 2008. Development from an African Perspective: Early Success and Challenges at the Africa Development Bank. *Review of Black Political Economy*. 35 (2/3): 109-115.

Buyoya, P. 2006. Toward a Stronger African Union. *Brown Journal of World Affairs*. 13 (2): 165-175.

Chhotray, V. and Stoker, G. 2008. *Governance theory and practice: A cross-disciplinary approach*. London: Palgrave Macmillan.

Centre for Chinese Studies. 2006. *China's Interest and Activity in Africa's Construction and Infrastructure Sectors*. Stellenbosch: Stellenbosch University.

CFA (Chartered Financial Analyst) Institute. 2013. *Derivatives and Portfolio Management*. New York: CFA Institute.

Colverson, S. and Perera, O. 2012. *Harnessing the Power of Public-Private Partnerships: The role of hybrid financing strategies in sustainable development*. Winnipeg: International Institute for Sustainable Development.

Deacon, D., Pickering, M., Golding, P. and Murdock, G. 1999. *Researching Communications: A Practical Guide to Methods in Media and Cultural Analysis*. London: Arnold.

Deloitte. 2013. *Funding Options: Alternative financing for Infrastructure Development*. Sydney: Deloitte Touche Tohmatsu Limited.

Dombrowsky, I., Bastian, J., Daschle, D., Heisig, S., Peters, J. and Vosseler, C. 2014. International and local benefit sharing in hydropower projects on shared rivers: the Ruzizi III and Rusumo Falls cases. *IWA Publishing Online Journal*. 16 (6): 11087-1103.

Downie, R. and Cooke, J. G. 2011. *Assessing Risks to Stability in Sub-Saharan Africa*. Washington. Centre for Strategic and International Studies.

Dillow, C. 2014. Tanzania this East African country's economy is poised to take flight. *PM Network Journal*. 28 (9): 42-49.

*Economist*. 2015. Private Equity in Africa: Unblocking the pipes. January: 12.

*Finweek*. 2014. In Brief. December: 6.

Foster, V. and Briceño-Garmendia, C. 2010. *Africa's infrastructure: a time for transformation*. Washington: World Bank.

Forere, M. 2012. Is Discussion of the "United States of Africa" Premature? Analysis of ECOWAS and SADC Integration Efforts. *Journal of African Law*. 56(1): 29-54.

Gatti, S. and Groce, R. D. 2014. Financing Infrastructure - International Trends. *OECD Journal*. 1.

Gibb, R. 2009. Regional Integration and Africa's Development Trajectory: meta-theories, expectations and reality. *Third World Quarterly*. 30(4): 701-721.

Gutman, J., Sy, A. and Chattopadhyay, S. 2015. *Financing African Infrastructure: Can the world deliver?* Washington: Brookings Institution.

G8- Gleneagles Summit. 2005. Africa. Auchterarder: G8.

Haas, E. B. 1958. *The Uniting of Europe: Political, Social and Economic Forces, 1950-1957*. Stanford: Stanford University Press.

Hammond, M. 2013. The Grand Ethiopian Renaissance Dam and the Blue Nile: Implications for transboundary water governance. *Global Water Forum*. 14 (5). 1-5.

Harris, J.E. 2003. *Diaspora studies and Pan-Africanism*. Washington: Howard University Press.

Havik, P. J. 2013. Colonial Administration, Public Accounts and Fiscal Extraction: Policies and Revenues in Portuguese Africa (1900-1960). *African Economic History*. 41(2): 159-221.

Hirschman, A. 1958. *Strategies of Economic Development*. New Haven: Yale University Press.

Huillery, E. 2009. History Matters: The Long-Term Impact of Colonial Public Investments in French West Africa. *American Economic Journal*. 1(2): 176-215.

Inderst, G. and Stewart, F. 2014. *Institutional Investment in Infrastructure in Emerging Markets and Developing Economies*. Washington: World Bank.

Jerome, A. 1999. *Infrastructure in Africa: The Record*. AFDB Economic Research Papers no 46. CITY OF PUBLICATION? AfDB.

Kohler-Koch, B. and Rittberger, B. 2006. The 'Governance Turn' in EU studies. *Journal of Common Market Studies*. 44(1): 27-49.

Laporte, G. and Mackie, J. 2010. *Building the African Union: An assessment of past progress and future prospects for the African Union's institutional architecture*. Maastricht: Nordiska Afrikainstitutet and European Centre for Development Policy Management.

Lindlof, T. 1995. *Qualitative Communication Research Methods*. London: SAGE Publications.

Loveless, M. and Rohrschneider, R. 2011. Public perceptions of the EU as a system of governance. *Living Reviews in European Governance*. 6(2): 1-38.

Martin, G. 2013. Dream of Unity: From the United States of Africa to the Federation of African States. *African and Asian Studies*. 12(3): 169-188.

Mbeki, T. 2012. The African Union at Ten Years Old: A Dream Deferred! *Africa Institute of South Africa*. 42(3): 13-24.

McCarthy, C. (1995). *Regional integration: part of the solution or part of the problem?* In Ellis, S. ed., *Africa Now: People, Policies, and Institutions*. London: Heinemann.

McKinsey & Company. 2014. *The McKinsey Infrastructure Diagnostic*. Seoul: McKinsey & Company.

McKinsey Global Institute. 2013. *Infrastructure productivity: How to save US\$ 1 trillion a year*. Seoul: McKinsey & Company.

- 2010. *Lions on the move: The progress & potential of African economies*. Seoul: McKinsey & Company.

Mody, A. 1997. Infrastructure Delivery through Central Guidance. In Assokha, N. (Ed.). *Infrastructure strategies in East Asian: The untold story*. Washington: World Bank.

Museru, M., Torrein, F. and Gossel, S. 2014. The impact of Aid and Public Investment Volatility on Economic Growth in Sub-Saharan Africa. *World Development*. 57(3): 138-147.

Ncube, M. 2008. *Financial Systems and Monetary Policy in Africa*. Working paper 20. Johannesburg: Wits Graduate School.

*New African Magazine*. 2012. NEPAD 10 years and counting. May: 64-66.

*New African Magazine*. 2014. Why Africa`s problems are not insurmountable. March: 80-83.

NEPAD (New Partnership Programme for Africa`s Development). 2015a. *About the NEPAD Agency, Brochure*. Johannesburg: NEPAD.

- 2014. The Dakar Agenda for Action (DAA) Moving Forward Financing for Africa`s Infrastructure. Dakar: NEPAD.
- 2015b. *NEPAD Agency Agriculture and Food Programme, Brochure*. Johannesburg: NEPAD.
- 2015c. *NEPAD Agency Integration and Infrastructure Programme, Brochure*. Johannesburg: NEPAD.
- 2015d. *NEPAD Agency African Peer Review Mechanism, Brochure*. Johannesburg: NEPAD.

- 2015e. *Regional Integration and infrastructure*. Available from: <<http://www.nepad.org/regionalintegrationandinfrastructure>>. [22 August 2015].

NELSAP (Nile Equatorial Lakes Subsidiary Action Program). 2013. *Environmental and Social Impact Assessment study on the Power Transmission lines linked to the Rusumo Falls Hydro-Electric Generation Plant*. Entebbe: NELSAP.

OECD (Organisation for Economic Co-operation and Development). 2011a. *Mapping support for Africa's infrastructure investment*. Dakar: OECD.

- 2011b. *Recalibrating Development Co-operation: How Can African Countries Benefit from Emerging Partners?* Paris: OECD.
- 2012. *Mapping Support for Africa's Infrastructure Investment*. Dakar: OECD.

Okhonmina, S. 2009. The African Union: Pan-Africanist Aspirations and the Challenge of African Unity. *Journal of Pan-African Studies*. 3(4):85-100.

Olivier, G. 2010. Regionalism in Africa: Cooperation without integration? *Strategic Review for Southern Africa*. 32(2): 17-43.

Oxfam International. *African Union Compendium*. Addis Abba: Oxfam International.

Ozen, C. 1998. Neo-functionalism and the change in the dynamics of Turkey-EU relations. *Journal of International Affairs*. 3(3):1-14.

Pessoa, A. 2011. *Public – Private Sector Partnerships in Developing Countries: Are infrastructures responding to the new ODA strategy*. University of Porto Working Papers. Porto: University of Porto.

Pierre, J. and Peters, B.G. 2000. *Governance, Politics and the State*. New York: Palgrave Macmillan.

Punungwe, G. 2005. *AU/NEPAD Spatial Development Program (SDP)*. Bamako: NEPAD.

Qizilbash, A. 2011. Public - Private Partnerships and the value of the process: The case of Sub-Saharan Africa. *International Public Management Review*. 12(2): 38-54.

Shivji, I.G. 2008. *Pan Africanism or Pragmatism? Lessons of Tanganyika—Zanzibar Union*. Dar es Salaam: Mkuki na Nyota Publishers.

Solomon, B. and Ruiz, I. 2012. Political Risk, Macroeconomic Uncertainty, and the Patterns of Foreign Direct Investment. *The International Trade Journal*. 26(2): 181-191.

Starr, M.A. 2014. Qualitative and mixed – methods research in economics: Surprising growth, promising future. *Journal of economic surveys*. 28(2): 238-264.

Strauss, A. and Corbin, J. 1998. *Basics of Qualitative Research Technique and Procedures for Developing Ground Theory*. 2nd Edition. London: SAGE Publications.

Support Programme for Accelerated Infrastructure development. 2007. *Key Challenges to Public Private Partnerships in South Africa: Summary of Interview Findings*. Pretoria: The Presidency of South Africa.

Tesfa, B. 2013. Benefit of Grand Ethiopian Renaissance Dam Project (GERDP) for Sudan and Egypt. *EIPSA Communicating*. 1(1).1-12.

Thamhain, H.J. 2014. Assessing the Effectiveness of Quantitative and Qualitative Methods for R&D Project Proposal Evaluations. *Engineering Management Journal*. 26(3):3-12.

UN (United Nations). 2014. *The Millennium Development Goals Report 2014*. New York: UN.

UN (United Nations) and OECD (*Organisation for Economic Co-operation and Development*). 2010. *Economic Diversification in Africa: A Review of Selected Countries*. New York: UN.

UN (United Nations) and AU (African Union). 2014. *Seventh Joint Annual Meetings of the ECA Conference of African Ministers of Finance, Planning and Economic Development and AU Conference of Ministers of Economy and Finance*. Abuja: UN and AU.

US Department of the Treasury. 2014. *Expanding our Nation's Infrastructure through Innovative Financing*. Washington: US Department of the Treasury.

Vagliasindi, M. and Nellis, J. 2009. *Evaluating Africa's Experience with Institutional Reform for the Infrastructure sectors*. Washington: World Bank.

Veilleux, J. 2013. The Human Security Dimensions of Dam Development: The Grand Ethiopian Renaissance Dam. *Global Dialogue*. 15(2). 41-52.

Wanjala, S. C. 2012. *Fighting Corruption in Africa: Mission Impossible?* Laxenburg. International Anti-Corruption Academy.

Welz, M. 2014. A 'culture of conservatism': how and why African Union member states obstruct the deepening of the integration. *Strategic Review for Southern Africa*. 36(1): 4-24.

- 2013. The African Union beyond Africa: Explaining the limited impact of Africa's continental organization on global governance. *Global Governance*. 19(3): 425-441.

Whittington, D., Waterbury, J. and Jeuland, M. 2014. The Grand Renaissance Dam and prospects for cooperation on the Eastern Nile. *Water Policy*. 16(4): 595-608.

Wimmer, D.R. and Dominick, R.J. 2000. *Mass Media Research: An Introduction*. 6<sup>th</sup> Edition. Johannesburg: Wadsworth Publishing Company.

WEF (World Economic Forum). 2014. *The Global Competitiveness Report 2014–2015*. Geneva: WEF.

WEF (World Economic Forum) and the Boston Consulting Group. 2014. *African strategic infrastructure initiative managing transnational infrastructure programmes in Africa – challenges and best practices*. Geneva: WEF.

Zuma, J. 2015. *President Jacob Zuma presents report on work of NEPAD Presidential Infrastructure Championing Initiative*. Available from: < <http://www.gov.za/president-update-work-nepad-presidential-infrastructure-championing-initiative-pici> >. [25 August 2015].