

COMESA REGION KEY ECONOMIC INFRASTRUCTURE PROJECTS

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EXECUTIVE SUMMARY

In order to attain the vision of becoming a fully integrated, internationally competitive regional economic community with high standards of living for all its people and ready to merge into an African Economic Community, COMESA accords infrastructure its rightful role in regional integration programming. This is because infrastructure is critical in enabling the production and the conveyance of commodities through the various means of transport and communications. The infrastructure covers transport, Information Communications Technology (ICT), energy and trans-boundary water.

The development of adequate and efficient infrastructure and provision of services is underlined in the COMESA Treaty and through decisions of the Authority, the Council and in those of ministerial meetings for ministers responsible. Article 84 of the COMESA Treaty obligates Member States to develop a coordinated and complimentary transport and communications policies to improve and expand existing links and establish new ones as a means of furthering physical cohesion of Member States.

The cost of construction and maintenance of infrastructure is colossal as indicated by findings from various survey reports. The African Infrastructure Country Diagnostic (AICD) Study conducted for the African continent in collaboration with the World Bank in conjunction with the African Development Bank (AfDB) indicates that the Africa requires about US$ 93 billion per annum in order to cover the deficit in funding infrastructure. In order to provide sufficient infrastructure for Africa's needs, new and innovative methods of funding and deployment methods are therefore required.

The mobilization of resources to develop and maintain regional infrastructure has been a core strategy of COMESA member states, the Tripartite and indeed at the continental levels. Since the first Tripartite Infrastructure Investment Conference held in Lusaka in April, 2009 on the North South Corridor, several other investor conferences have been held on the basis of the Tripartite, REC, levels, multi country and at national levels.

On their part, the ministers at their last meeting held in September, 2012 in Lusaka decided that an investment conference for the energy subsector be held in 2013 in order to mobilise resources for funding important regional energy projects. The COMESA Council Bureau at its meeting agreed that a full infrastructure investment conference covering projects in all the subsectors be held in Kampala, Uganda.

Arising from the above decisions, the COMESA Infrastructure Investment Conference is scheduled to take place in Kampala, Uganda in 14th September, 2013.

Below is a summary of the identified infrastructure projects to be presented during the Kampala investment Conference.

Although the feasibility study is yet to be developed, indicative amount has been given for implementation

Summary of Projects Status

Sector	Subsector	Projects for Preparation		Projects Ready for Implementation		Total Amount Mill US$
		No	Amount in Mill US$	No	Amount in Mill US$	
Transport	Railways	7	2.5	2	12,200	14,700
	Ports	1	0.4	7	7,476.0	7,476.4
	Roads	6	2,720.0	14	2,071.90	4,791.90
	Airports			5	1,461.0	1,461.0
Energy	Power Transmission	4	4	4	3,609.8	3,613.8
	Power Generation	1	9.1	9	24,208.6	24,217.7
	Petroleum	-	-	3	6,721.0	6,721.0
	Gas	2	2.5	-	2,600 [1]	2,602.5
ICT	Optic Fibre Links				635.0	635.0
All Projects		**22**	**2, 733.5**	**44**	**51, 027.3**	**53,763.5**

The Regional Economic Communities are playing an important role in getting their member states to identify and prioritise infrastructure projects which enhance regional connectivity.

1. INTRODUCTION

Regional integration is the process by which countries with diverse national economies seek mutual gains by complementing one another more through engaging in economic cooperation amongst themselves.

Building regional integration requires that Regional Economic Communities (RECs) should create a series of general benefits on the economies of their Member States, such as greater negotiating power, greater ability to attract investment, and extension of the market, among others. Regional integration is, therefore, considered to be one of the options that are available to generate sufficient economic growth that will in turn contribute to wealth creation and poverty reduction. However, the success of our regional integration can only be realized through the development of an efficient and dependable economic infrastructure system.

Arising from this scenario, itt is recognized that, lack of adequate regional economic infrastructure in transport, energy and communications, in the COMESA region leads to very high transaction costs and low levels of competitiveness of the countries in the local, regional and global markets. Therefore, bridging the economic infrastructure gap, to reduce the cost of doing business and enhance the competiveness has been identified as one of the main priorities of COMESA in infrastructure development.

In this regard, COMESA has recognized economic infrastructure development as a priority and strategic focus area that requires special attention. The Strategic Objective to be pursued is, therefore, to effectively address constraints related to the improvement of infrastructure and services in the region in order to reduce the cost of doing business and also and to enhance competitiveness, through fostering physical regional connectivity and deepening infrastructure integration.

The infrastructure programmes in COMESA currently comprise transport, energy and Information Communications Technology (ICT). A holistic corridor based approach to infrastructure development and management has been adopted and this is based on three key pillars i.e. policy and regulatory harmonization, facilitation and the development of priority regional physical infrastructure covering transport, information communications technologies (ICT) and energy.

Transport covers the three subsectors namely; civil aviation; surface transport which includes road and rail; and maritime and inland water transport. Energy includes electricity, fossil fuels and renewable energy subsectors, whilst ICT comprises telecommunications, broadcasting and postal services subsectors.

A number of key strategies have been identified to be employed in order to achieve the infrastructure strategic objective indicated above. They include the following:

Development and review of model policies and regulations (for Transport, ICT, and Energy);

Development of aid for trade programmes along the major regional corridors including the establishment of One Stop Border Posts (OSBPs);

Development of legal and institutional frameworks for public private sector partnerships in order to increase the private sector participation in infrastructure development; and

Implementation of a communication strategy for the dissemination of information on development of infrastructure projects to all stakeholders.

2. CHALLENGES AND OPPORTUNITIES IN INFRASTRUCTURE

The COMESA regional infrastructure challenges result primarily from the lack of resources and capacity within the Member states to enable them to plan, implement and maintain robust adequate and robust infrastructure networks.

The effective delivery of infrastructure for both national and regional needs requires good planning, management capacity, adequate financing, good governance and integrated national and regional planning. It also requires cooperation in resource mobilisation in order to undertake financing of new projects and maintenance of existing networks

In resolving the challenges to infrastructure, COMESA has attempted to develop the requisite enabling environment through harmonisation of policy and regulatory regimes. COMESA has also undertaken other measures such as the establishment of corridors and OSBPs, creation of COMESA Infrastructure Fund (CIF) and establishment of the Project Preparation and Implementation Unit (PPIU) to identify, prioritize, develop, and prepare bankable projects.

3. POLICY AND REGULATORY HARMONIZATION

Over the years COMESA has developed and adopted a number of model policy and regulatory guidelines in transport, energy and ICT.

In addition, a number of regional associations of regulatory authorities have also been established in order to facilitate policy and regulatory harmonization as well as fostering capacity building through common programming and exchange of information.

3.1 Transport

Policy and Regulatory Harmonization is a key component in developing both regional economic infrastructures in transport and also in transport facilitation. The COMESA Transport Policy was developed in conjunction with the Transport Strategy and Priority Plan (TCS/PIP) that was completed and adopted by Council in 2010.

The COMESA Transport policy provides a framework for the development of national policies which enhance the regional agenda which aims at providing for seamless regional physical connectivity and the smooth facilitation in the provision of transport services that are not impended by regulatory, licensing, administrative and operational bottlenecks to cross border and transit transport services.

The dissemination of the COMESA transport policy is expected to be carried out continuously so as to inform member states and service providers so that it is clearly understood and incorporated during policy development or reviews.

3.2 Energy

In the energy sector, COMESA has a Model Policy that was developed in order to provide guidelines to member states as they develop or review national policies. The regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA) was officially launched in March 2009.

The main objectives of RAERESA include capacity building and information sharing; facilitation of energy supply policy, legislation and regulations; inter regional cooperation; and regional energy regulatory co-operation.

During the last three years, RAERESA managed to implement a number of activities, which were contained in its work programme, such as organization of the Annual General Meetings, organization of a number of meetings of the Portfolio Committees on Electricity, Oil and Gas, Renewable Energy and Environment and Energy Efficiency; and also implementation of a number of training workshops.

Moreover, a number of baseline surveys were undertaken such as the renewable energy database, the status of accessibility and affordability of electricity in the COMESA region.

In the oil subsector the status of accessibility and affordability of oil and gas in the COMESA region which is in progress, and the status of the energy efficiency and environment in the electricity sector in the COMESA region which also in progress.

3.3 Information and Communications Technology (ICT)

The COMESA Model Policy and Bill were developed and adopted by Council in 2003 and these have been used by various member states when developing their national ICT policies.

A number of policy guidelines were developed and implemented through the Association of Regulators for Information and Communications in Eastern and South Africa (ARICEA). These include licensing, universal access, interconnection, spectrum management and monitoring.

While the COMESA Secretariat has provided secretarial services for ARICEA since its establishment, a host agreement for the association has also been finalized and adopted by the Council.

4. DEVELOPMENT OF REGIONAL ECONOMIC INFRASTRUCTURE

Development of physical regional economic infrastructure is essential and critical in reducing the cost of doing business, fostering sustainable market development, trade promotion and enhancing regional integration.

4.1 Transport

The COMESA region has continued to promote the development of road networks through construction of missing regional inks, upgrading and, rehabilitation of existing ones and increasing the capacity of current links where traffic volumes have surpassed the design volumes. In this regard, major road projects have been undertaken along the major transport corridors which include the Djibouti Corridor,

Lamu Corridor, the Northern Corridor, Central Corridor, Dar es Salaam Corridor and the North/South Corridor among others.

There are several projects in the pipeline for construction of new railways along corridors such as Djibouti, Lamu, Nacala and the reconstruction of legacy railway

On corridor development and management, work has been continuing under the auspices of the Tripartite on the North South Corridor, the Northern and Central corridors and the Djibouti Corridor on the development of physical infrastructure, including the establishment of one stop border posts and the corridor management institutions.

Regarding inland water transport, the Shire-Zambezi Waterways Project received funding from the African Development Bank to undertake more comprehensive studies to prepare for investment in requisite infrastructure in order to serve the growing traffic demands expected to arise from the exploitation of the coal deposits in Moatize (Tete) and the expected import cargoes to meet the needs of the mining industry.

4.2 Energy

In order to meet the growing electricity demand in the COMESA region, a number of power generation projects are either under construction such as Itezhi-Tezhi Power Project (120 megawatts) and Kariba North Bank Extension Project (360 megawatts) in Zambia and Gibe III (1870 megawatts), Chemoga Yeda (280 megawatt), Halele Worabesa (420 megawatts) in Ethiopia; or being developed such as Batoka Gorge Hydro Power Project (1 600 megawatts) in Zambia and Zimbabwe; Ruzizi III (145 megawatts) and Ruzzi IV (390 megawatts) for Burundi, DRC and Rwanda; Inga hydro power project (3500 – 40,000 megawatts) in DRC.

Other power generation projects include Wanie-Rukula (288 megawatts) between Democratic Republic of Congo and South Sudan; Mandaya (2000 megawatts), Karadobi (1600 megawatts), Border (1200 megawatts), Baro I (500 megawatts) and Genji (200 megawatts), Renaissance (5000 megawatts) in Ethiopia; Karuma (700 megawatts), Murchinson Falls (750 megawatts) and Ayago (550 megawatts) in Uganda; Rusumo Falls (63 megawatts) in Burundi, Rwanda and Tanzania; and Large Geothermal projects in Kenya.

Moreover, there are a number of power interconnection projects which COMESA and the Tripartite are fast-tracking their implementation. These projects include Zambia-Tanzania-Kenya (ZTK), Ethiopia-Kenya, Zimbabwe-Zambia-Botswana-Namibia (ZIZABONA), Ethiopia-Sudan, Ethiopia-South Sudan, Egypt-Sudan, Egypt-Sudan-Ethiopia, South Sudan-Uganda and Eritrea-Sudan.

4.3 Information and Communications Technology (ICT)

The current approach on COMTEL is to set up a virtual network using the existing national backbone fiber optic links. In order to progress with the new approach, Cross-connect Technology Company and Huawei have been appointed by the COMESA Secretariat to implement the project. It is expected that COMTEL would consider a high level secure network (Virtual Private Network) to be used for electronic banking and settlement by reserve banks and retail banks in order to promote trade and facilitate

market development.

5. THE COMESA INFRASTRUCTURE FUND

The COMESA Infrastructure Fund is at an advanced stage of formation and will provide funding for priority projects by raising capital for investment in trade-related infrastructure projects in the region. The Fund will provide seed capital and leverage resources from a mix of public and private investors' funds.

On its inception, the Fund is planned to raise a minimum US$1 billion committed equity capital contributions, to be complemented with proportionate subordinated debt offers depending on off-take for the equity offer. At the moment the Fund is domiciled and hosted by the PTA Bank.

The Fund will target infrastructure assets in sectors which include transport, energy, water and sanitation, information and communication technology.

The Fund is intended to provide seed money for the implementation of regional projects. This seed money is expected to play a great role in leveraging funds from other sources. Studies have been carried out to identify the technically feasible and financially viable physical infrastructure projects for the COMESA Infrastructure Fund where some priority projects have been identified. The projects estimated to cost US$ 6.554.0 million were identified by the Fund consultants, Price Waterhouse for development under the Fund.

6. REGIONAL ECONOMIC INFRASTRUCTURE PROJECTS

In order to effectively address constraints related to the improvement of infrastructure and services and to reduce the cost of doing business and also to enhance competitiveness in the COMESA region, a number of projects, in transport, energy and information and communications technology, have been identified.

Once implemented, it is expected that these projects would foster physical regional connectivity and deepening infrastructure integration in the COMESA region. It is essential that these energy projects which have already been identified should be presented to potential investors.

The tables below show:

a. Projects that require funding highlighted in Yellow

b. Projects that have been funded highlighted in Blue

c. Projects that require funding for project preparation highlighted in Green

d. Projects that are at the concept stage highlighted in Gray.

6.1 Transport

Transport infrastructure in terms of roads, railways and maritime transport facilities in the Eastern and Southern Africa region has evolved slowly over the years and can be described as barely adequate in most countries in terms of coverage compared with the developed and middle income countries.

The transport programmes seek to enhance regional infrastructure connectivity through the construction of missing links, upgrading of current links in roads, railways and the development of maritime ports and inland terminals along the major transport corridors.

Summaries of the transport projects which require financing are shown below.

6.1.1 Airports

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$
1	New Bugesera Airport	Rwanda	Expansion of capacity to provide air transport services	Tendering Process	635.0
2	Lokichoggio	Kenya	Provision of air transport services to support growth of tourism sector	Feasibility study and Master plan completed. IRR is 12%.	144.0
3	Lamu Airport	Kenya	To provide air transport services to support expansion of Lamu port which serves the LAPPSET Corridor	Feasibility study and Master plan completed. IRR is 19.1%	188.0
4	Isiolo Airport	Kenya	Provision of air transport services to support the growth of the tourism sector	Feasibility study and Master plan completed IRR is 12%	174.0
5	Chebelleh Airport and Cargo Village (Phase I)	Djibouti	Construction of a new airport with a 4.2 kilometer runway	At concept stage	320.0
	Total				**1,461.0**

6.1.2 Roads

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost Mill US$

1.	Upgrading of Tesseney / Kassala	Eritrea, Sudan	Construction of a road linking Eritrea to Sudan and the port of Massawa	Detailed engineering designs completed	250.0
2.	El Damazin/ Elkurmuk Road (149 km)	Sudan Ethiopia,	Upgrading of the road from the Ethiopian border to Damazin in Sudan.	Detailed engineering design completed	90.0
3.	Upgrading of Dewele/ Dire Dawa (220 Km)	Ethiopia, Djibouti	Construction of road running parallel to the Djibouti/Addis Ababa railway	Detailed engineering designs completed	250.0
4.	Elshowak/ Um Bracket/ El Homora Road	Sudan, Ethiopia	Construction of road linking Ethiopia and Sudan and a feeder road link to the trans-African highway	Engineering design and tender document completed	38.3
5.	Upgrading of Mizani / Dima/Raad	Ethiopia, South Sudan	Construction of the 152 KM road linking Ethiopia and South Sudan and a feeder road link to the trans-African highway	Detailed engineering designs completed	115.0
6.	Turbi – Moyale Road	Kenya, Ethiopia	Construction of road linking Ethiopia and Kenya. It is part of the Cape to Cairo highway and will also provide access for Ethiopia Mombasa port	Detailed engineering design completed.	160.0
7.	Rehabilitation of Awasa /Mega/Ageremariam/ Moyale	Ethiopia, Kenya	Construction of 495 KM road links to Ethiopia and Kenya that forms part of the Cape to Cairo highway. The links will also provide access for Ethiopia to Lamu and Mombasa ports		310.0
8.	Lamu – Garissa highway (250 Km)	Kenya	Construction of a road link for the LAPPSET Corridor	Feasibility study and master plan completed.	356.0
9.	Kampala - Jinja road	Uganda	Upgrading of congested road to a dual carriageway	Designs are ongoing	216.0
10.	Upgrading of Nandapal/Kapoeta/ Torit/ Juba road	South Sudan, Kenya	Construction of road linking South Sudan to Kenya to provide access to the ports of Lamu and Mombasa.	Feasibility study and engineering design completed	370.0

11.	Rehabilitation of the Kitale Lodwar-Lockchogio road (512km)	Kenya, South Sudan	Rehabilitation of road link between Kenya and South Sudan.	Feasibility study for rehabilitation and designs on some segments already undertaken	103.0
12.	Rehabilitation of RN6: Kobero-Muyinga Road	Burundi, Tanzania	Rehabilitation of road to improve transit of freight and passengers along the Central Corridor	The project is at its early stages of preparation	20.0
13.	Ngoma – Bugesera - Nyanza road	Rwanda	Upgrading of road to bitumen standards. This will improves access Northern and Eastern provinces and the Central Corridor	Pre-feasibility studies are ongoing. Funds being sought for detailed deigns and construction.	158.0
14	Kapchorwa – Suam road	Uganda, South Sudan	Upgrading the gravel road linking South Sudan to the Northern Corridor to support growth of the agriculture and tourism sectors.	Designs are complete	92.0
15	Kitale – Suam road	Kenya, South Sudan, Uganda	Construction of road to serve Kitale and connect to Uganda and links to South Sudan.	Design work is ongoing	55.0
16.	Kayonza – Rusumo road (92 km.)	Rwanda	Construction of road linking Rwanda to the Central Corridor to increase trade within the Great Lakes region and the rest of the World.	Feasibility studies complete.	70.0
17.	Kagitumba - Kayonza road	Rwanda	Construction of road connecting Rwanda to the Northern Corridor and provide an alternative route to the Gatuna border and Kigali.	Feasibility studies complete.	82.0
18.	Bujumbura - Nyakararo road (50 km.)	Burundi	Rehabilitation of road link from Bujumbura to the Central Corridor.	Concept in progress. Pre-feasibility studies have commenced.	50.0
19.	Upgrade of Kibungo-Nyabisindu Road	Rwanda	Design of strategic road to reduce travel time, transport costs and accident rates.	Detailed engineering design have not been carried out	63.4

20.	Serenje - Nakonde Road	Zambia	Reconstruction of the road which forms part of the three segments Trans-African Highway.	Detailed engineering designs are ongoing. DBSA engaged as \ Lead Facilitator to raise finance for the re-construction.	1,920.0
21.	Link 4 Chirundu-Lusaka road	Zambia	Construction of the road which is s part of Trans-African Highway	Works to be tendered	23.2
	Total				**4,791.9**

6.1.3 Ports

No.	Project Title	Project Title Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$
1	New Bagamoyo Port	Tanzania	Construction of a port to increase the capacity of maritime services	Studies are on-going	1,000.0
2.	Kisarawe Port	Tanzania	Increase the capacity of maritime services		300.0
3	Kurasini Oil Jetty	Tanzania	Increase the capacity for oil services	Designs already undertaken	500.0
4	Lamu Port	Kenya	Serve the South Sudan and Ethiopia external trade	Designs already completed	380
5	Tadjoura Port	Djibouti	Exports of Ethiopian minerals such as potash	Designs already completed	160.0
6	Doraleh Container Terminal Phase II	Djibouti	Extension of the container Terminal in Doraleh	Designs already completed	300.0
7	Ship Repair and Dry dock facilities	Djibouti	Provision of ship repair and maintenance facilities	Project preparation ongoing	0.35
8	Damieetta Port	Egypt	Increase the capacity of transhipment services	Designs already completed	1,690.0
	Total				**4,330.35**

6.1.4 Railways

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$
1	Addis Ababa-Mieso-Dire Dawa Djibouti Railway	Djibouti-Ethiopia	Construction of an 872 KM standard gauge railway line linking Addis-Ababa to Djibouti port.	Tender document under preparation	4,500.0
2	Addis Ababa/Modjo/ Moyale Railway	Ethiopia	Completion of the segment linking Lamu to Addis Ababa	Preliminary design undertaken	NA
3	Addis Ababa/Jima /Boma Railway (740 km)	Ethiopia	Construction of a 740 KM line linking Addis-Ababa to the border of South Sudan at Raad	Preliminary design undertaken on the Jima/ Boma segment	NA.
4	Tadjourah-Galafi Railway	Djibouti	Construction of new railway line to transport minerals such as potash from Ethiopia	Preliminary design undertaken	600.0
5.	Raad - Kapoeta Railway	South Sudan, Ethiopia	Construction of rail segment linking Juba to Addis Ababa	Feasibility study and designs to be undertaken	NA
6.	Galafi- Awash -Mekele	Ethiopia, Djbouti	Construction of a 775 KM rail line linking Northern Ethiopia to Tadjoura port in Djibouti	Preliminary design work undertaken	NA
7.	Rift Valley Railways	Uganda	Construction of a 500 KM (one meter gauge) rail line linking Tororo to Pakwach.	Feasibility study and designs to be carried out	N.A
8.	Gulu/ Nimule/ Juba	Uganda and South Sudan	Construction of railway line linking Mombasa to Juba connecting with the Kenya-Uganda railway	Feasibility study and designs to be carried out	NA
9.	Lamu–Isiolo-Moyale-Nadapal	Kenya, South Sudan, Ethiopia	Construction of a railway line that provides alternative routes from South Sudan to Kenya and Ethiopia	Feasibility study and master plan completed	7,099.0
10	Nandapal Kapoeta /Juba Railway	Kenya, South Sudan	Construction of the final standard gauge rail link between Lamu port and Juba	Feasibility study and designs to be carried out	NA
11	Aswan / Wadi Halfa Railway Link	Egypt, Sudan	Construction of a 500 KM railway line linking with the Egyptian and Sudanese rail networks	Feasibility study and designs to be carried out	2.5
	Total				**14,700**

6.2 Energy

The key energy components where a regional strategy is desirable include power and petroleum. The main thrust is to promote regional cooperation in energy development, through increased power generation, construction of regional power grid interconnectors and the construction of high capacity regional petroleum oil refineries and pipelines.

The following is a summary of the energy projects which require financing:

6.2.1 Power Transmission Networks Interconnection

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$ Dollars
1.	Zambia-Tanzania-Kenya Power Interconnector	Zambia, Tanzania and Kenya	Construction of a power interconnector connecting the Eastern and Southern Africa power pools to facilitate trading in electricity; promote power systems stability and rural electrification.	A Project implementation Unit (PIU) has already been established to coordinate fund mobilisation and project implementation	1.116.0
2.	South Sudan-Uganda Power Interconnector	South Sudan and Uganda	Construction of a power transmission lines connecting South Sudan and Uganda power grid to facilitate trading in electricity and promote power systems stability	The feasibility study is yet to be completed which will be financed by the African Development Bank (AfDB)	1.0
3.	Eritrea-Sudan Power Interconnector	Eritrea and Sudan	Construction of a power interconnector linking the South Sudan and Uganda power networks to facilitate trading in electricity and promote power systems stability	The feasibility study is yet to be completed which will be financed by the African Development Bank (AfDB)	1.0
4.	Ethiopia South Sudan	Ethiopia and South Sudan	Construction of a power line connecting the Ethiopian and South Sudan power networks to facilitate trading in electricity and promote power systems stability	The feasibility studies are yet to be completed.	1.0
5.	Ethiopia Sudan	Ethiopia and Sudan	Construction of a power transmission line connecting Ethiopia's and Sudan's power networks to facilitate trading in electricity and promote power systems stability	The feasibility studies are yet to be completed	1.0
6.	Zambia-DRC interconnector	DR Congo-Zambia	Construction of a power interconnector between Zambia and the DRC to facilitate trading in electricity and promote power systems stability	Funding for the line in Zambia (to link with World Bank funded section of the line on the DRC side) being considered by TTA IC. Alternative financing options are being reviewed.	17.0

7.	Egypt Sudan Ethiopia	Egypt, Ethiopia and Sudan	Construction of a transmission line to connect the power networks of Egypt, Ethiopia and Sudan to facilitate trading in electricity and promote power systems stability	The feasibility studies completed in December 2008 require updating	Estimated cost for the update of the feasibility studies, design and preparation of tender documents is US$ 4 million.
8.	Egypt Sudan	Egypt a and Sudan	Construction of a transmission line connecting the power networks of Egypt, Ethiopia and Sudan power networks to facilitate trading in electricity and promote power systems stability	The feasibility studies completed in August 2012 require updating	The; Depending on the final configuration of the interconnector the estimated capital costs vary between US$71 million and US$ 560 million.'
	Total				**US$ 2,497.8 (considering both option I and option II)**

The Status of some Power Interconnectors in the Region

It is worth noting that the Nile Equatorial Lake Subsidiary Action programme (NELSAP) of the Nile Basin Initiative (NBI) is fast-tracking the implementation of the following power interconnectors:

a. Uganda-Kenya,

b. Uganda-Rwanda, Rwanda-Burundi; and

c. Upgrade of existing electricity system Burundi-DRC (Eastern part) Rwanda into 220 kv.

In terms of organization and management, all institutional frameworks for the implementation of the projects have been put in place. Those include Project Coordination Unit (PCU), Project Steering Committee (PSC), Project Technical Committee (PTC) and National Project Implementation Units (NPIU).

Most of these projects are expected to be completed in the next three years and there will be urgent need to have the Eastern Africa Power Pool operational by then in order to facilitate power trade in the region.

6.2.2 Power Generation

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$ Dollars

1	Kalungwishi hydro project	Zambia	Construction of a 213 MW power generation plant on the Lakungwishi river.	Feasibility study completed. Lunzua Power Authority has been established to implement the project. The gearing structure is 20:80 equity to debt. IRR is 27.6%	641.0
2	Ayago hydro power project	Uganda	Construction of a 300MW power plant	Master plan study completed.	862.8
3.	Ethiopian Renaissance Dam	Ethiopia	Construction of a 6,000 MW power plant inclusive of a dam scheduled to be completed in July 2017..	The design and feasibility studies have been completed. Implementation started.	8,500 including the power transmission lines.
4.	Batoka Gorge Hydro- Power Station	Zambia and Zimbabwe	Construction of a dam and a 1,600 MW hydro power plant on the Zambezi River.	The detailed feasibility studies have been completed indicated that it is economically and technically feasible.	4,000
5.	Ruzizi III Hydro Project	Burundi D R Congo, Rwanda	Construction of a 147 MW hydropower plant on the Ruzizi River for supply of power to Rwanda, Burundi and the Democratic Republic of Congo.	The design and feasibility studies have been completed.	530.4 including the cost of transmission lines
6.	Inga Power Project	DRC	Construction of a 3,500 MW Inga 3 hydropower project on river Inga. The objective is to provide affordable, reliable and clean power DRC and neighboring states.	Awaiting results of a feasibility study complemented with studies on geology, hydropower production and the transmission system associated with the project	The feasibility study is estimated to cost USD 15 million. The estimated total cost of the project is USD 7,600
7	300 Megawatts (MW) Wind Farm at the West Nile River Region	Egypt	Development of 300 MW capacity wind farm.	Project is at concept stage.	US$ 9.1 million for preparing feasibility study and consultancy services Estimated capital cost of the project is US$ 468 million
8	Geothermal Power Generation in the Rift Valley	Kenya	Construction of thermal plants to exploit abundant thermal energy sources estimated at 15,000MW	Kengen has opened bids received for the construction of 560 MW geothermal stations	US$ 12,000,
9	Lac Assal Geothermal	Djibouti	Construction of a 26 MW Geo-thermal plant	Master plan completed. IRR is 28%	103.0

10.	Djibouti Wind power sites	Djibouti	Development of wind farms to generate a total of 46 MW at Ghoubet, Ali Sabieh, Djibouti Ville, Egralyta, and Bada Wein.	Master plan completed. IRR is 28%	88.4
	Total				**33,122.5**

6.2.3 Oil

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$
1	Lamu Crude Oil Pipeline	Kenya, South Sudan	Construction of pipeline to provide alternative oil export route for South Sudan	Feasibility study and master plan completed	3, 036.0
1	Lamu Ethiopia products pipeline	Kenya, Ethiopia	Construction of an oil pipeline to provides alternative routes for supply of oil to Ethiopia	Feasibility study and master plan completed	885.0
2	Oil Refinery	Kenya	Construction of an oil refinery to process crude from South Sudan and export products.	Feasibility study and master plan completed. IRR is 18.4%	2,800.0
	Total				**3,685.0**

6.2.4 Gas

No.	Project Title	Participating countries	Project description	Status of implementation	Estimated cost in Mill US$ Dollars
1	A liquefied natural gas (LNG) receiving terminal at port Dorahleh	Djibouti	Construction of a LNG plant to satisfy Djibouti's energy needs and lower the cost of doing business.	Feasibility study is to be completed.	1.0 for the feasibility study
2	Gas deposits in Southern Ethiopia	Djibouti and Ethiopia	Construction of gas plants to support export of gas	The feasibility study is yet to be completed	US$ 1.5 for the feasibility study US$ 2,600.0 for the construction of the project
	Total				**2,602.5**

6.3 Information and Communications Technology (ICT)

Lack of an optimized network and flexible interconnectivity, as well as high tariffs, are the primary inhibiting factors that contribute to low inter-state traffic. These factors negatively affect trade, social and economic development within the COMESA region.

The COMESA vision of an integrated economic community requires a regional integrated information and communications technology network that will effectively and economically facilitate efficient

interconnectivity and mobile telephone roaming, thereby enabling information transfer that promotes integration of trade activities in the region.

Summaries of the ICT projects which require financing are shown below.

6.3.1 COMTEL Project

No.	Project Title	Participating countries	Project Description	Status of implementation	Estimated cost in Mill US$
1.	COMTEL Project: IP clearing house and Regional IP Peering points	All Member States	Establish a platform to unlock value in the terrestrial fiber optic infrastructure, keep traffic within the region and reduce dependence on international clearing houses.	The feasibility study has been completed.	30.0 10 Million for each of the three
2	COMTELTraffic clearing house and Billing Platform and SAP Financial System	All member states	(a) Installation of routers in each country, (b) creation of three billing centers with V-sat redundancies network for data security, integrity and clearinghouse data centre and (c). integration of the billing system will with a SAP Financial System for revenue accounting and systems operation.	Huawei Converged Billing Systems design complete. Comprehensive SAP Project Plan in place.	25.0 for routers, Billing Platform and SAP Financial System
3	COMTEL Project: ICT optical fiber interconnectivity missing links	Zambia-Zimbabwe, Zambia-Malawi, Zambia-Tanzania, Burundi-Rwanda, D R Congo- Zambia, Eritrea-Sudan Rwanda-Uganda, Uganda-South Sudan	Construction of missing fiber infrastructure, to ensure connectivity between countries. Construction of new fiber links in segments that are not suitable to carry COMTEL traffic. .	Engineering design based on available date completed. The design may require some change as additional country data becomes available.	400.0
4	Libya- Sudan optical fibre cable route	Libya and Sudan	Creation of a fiber link to connect the ICT networks in the two countries	Concept stage	80.0
5	Egypt-Uganda fibre optic cable	Egypt, Uganda, South Sudan, Burundi & Rwanda	Laying of optical fibre cables along the river Nile to provide connection among the countries	Concept stage	100.0
	Total				**635.0**

7. CONCLUSIONS

It is a known fact the Infrastructure projects are generally capital intensive and they require investments in large magnitudes. However, from the tables above there are twenty seven (27) bankable projects which are ready for investment. The required funding for these bankable projects is as follows:

The total funding required for investment related to the bankable projects is estimated at US$ Dollars fifty one billions.

The total number of projects included in this brief is 66 and the total estimated investment required for them is US Dollars fifty four billion.

In order to make investments of this magnitude, in the time necessary to bring about real development, COMESA would need to use all the financial tools to mobilize resource from possible financial markets that are available. There are many tools in COMESA's financial toolbox, which include loans, bonds and private investments through PPPs.

Moreover, some countries in the COMESA region have already put some of these instruments into good use. In addition, parastatal agencies in many countries have issued bonds specifically for investment in roads and power. Many of the most prominent transport investments on the continent have been delivered through PPPs.

However, COMESA must build the capacity to analyse, prepare and manage PPPs and to use each one of these tools available to leverage resources from this option. For projects that are best owned and operated by the public sector, countries can take out loans or issue bonds, or borrow from development partners. But to obtain the best terms on bonds and loans, COMESA counties need to improve the creditworthiness of their public sector borrowers, and reform their financial markets.

It is also recommended that where the private sector can better operate services in the various infrastructure subsectors, it should be given the preference to do so through suitable PPP arrangements.