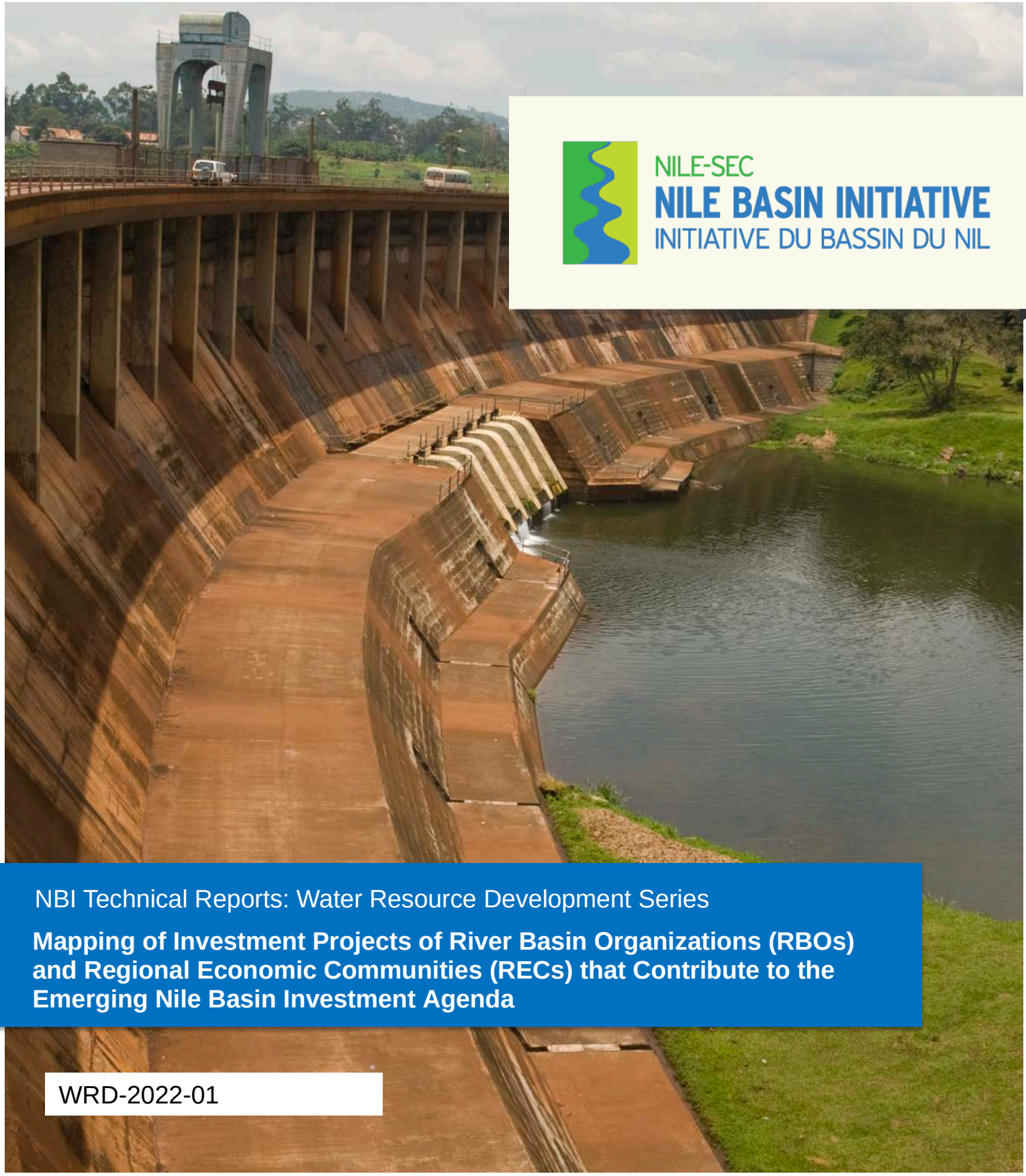

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NBI Technical Reports: Water Resource Development Series

Mapping of Investment Projects of River Basin Organizations (RBOs) and Regional Economic Communities (RECs) that Contribute to the Emerging Nile Basin Investment Agenda

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Document Sheet

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Mapping of Investment Projects of River Basin Organizations (RBOs) and Regional Economic Communities (RECs) that Contribute to the Emerging Nile Basin Investment Agenda

A Technical Report Highlighting RBOs and RECs roles, mandates and how they interact within the Nile Basin

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Acronyms and abbreviations

AfDB	African Development Bank
AMCOW	African Ministerial Council on Water
AU	African Union
AUC	African Union Commission
AUDA-NEPAD	African Union Development Agency – New Partnership for African Development
AWF	African Water Facility
AWV	African Water Vision
CAADP	Comprehensive Africa Agriculture Development Programme
CCTTFA	Centra Corridor Transport and Transit Facilitation Authority
CEN-SAD	Community of Sahel-Saharan States
CEPGL	Economic Community of the Great Lakes Countries
CFA	Cooperative Framework Agreement
CICOS	International Commission of the Congo-Oubangui-Sangha Basin
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Development
EA	Environmental Audit
EAC	East African Community
EAPP	Eastern Africa Power Pool
ECCAS	Economic Community of Central African States (ECCAS)
ECOWAS	Economic Community of West African States
ENCOM	Eastern Nile Council of Ministers
ENSAP	Eastern Nile Subsidiary Action Program
ENTRO	Eastern Nile Technical Regional Office
ESIA	Environmental and Social Impact Assessment
EU	European Union
FAO	Food and Agricultural Organisation of the United Nations
FTA	Free Trade Area
GDP	Gross Domestic Product
GWh	Giga watt hours
HSGOC	Heads of State and Government Orientation Committee
HYDROMET	Hydrometeorological Survey of the Catchments of Lakes Victoria, Kyoga and Albert
ICA	Infrastructure Consortium for Africa
ICPAC	IGAD Climate Prediction and Applications Centre

ICPALD	IGAD Centre for Pastoral Areas and Livestock Development
IDDRSI	IGAD Drought Disaster and Sustainability Initiative
IGAD	Intergovernmental Authority on Development
IGADD	Intergovernmental Authority on Drought and Development
IGAD-HYCOS	IGAD Hydrological Cycle Observing System
INWRMP	Inland Water Resources Management Programme
IRIMP	IGAD Regional Infrastructure Master Plan
ISDR	International Strategy for Disaster Reduction (UNISDR)
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
km	Kilometres
LAPSSET	Lamu Port, South Sudan, Ethiopia Transport Corridor
LTA	Lake Tanganyika Authority
LVBC	Lake Victoria Basin Commission
LVEMP	Lake Victoria Environment Management Program
LVWATSAN	Lake Victoria Water and Sanitation Programme
MCM	Million cubic metres
MW	Megawatts
NBI	Nile Basin Initiative
NBIP	Nile Basin Investment Programme
NCTTCA	Northern Corridor Transport and Transit Coordination Authority
NEL	Nile Equatorial lakes
NELSAP	Nile Equatorial Lakes Subsidiary Action Programme
NELSAP-CU	Nile Equatorial Lakes Subsidiary Action Programme Coordination Unit
NEPAD	New Partnership for African Department
NEPAD-IPPF	New Partnership for African Department – Infrastructure Project Preparation Facility
NGO	Non-Governmental Organisation
Nile-COM	Nile Council of Ministers
Nile-SEC	Nile Secretariat
Nile-TAC	Nile Technical Advisory Committee
NRBAP	Nile River Basin Action Plan
OAU	Organisation of African Unity
PHE	Population, Health and Environment
PICI	Presidential Infrastructure Champion Initiative
PIDA	Programme for Infrastructure Development in Africa
PIDA-PAP	Programme for Infrastructure Development in Africa – Priority Action Plan

PREPARED	Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development
PTA	Preferential Trade Area
RBO	River Basin Organisation
REC	Regional Economic Community
SADC	Southern African Development Community
SAP	Subsidiary Action Programme
SAPP	Southern Africa Power Pool
SMM	Sio-Malaba-Malakisi River Basin
STAP	Short Term Action Plan
SVP	Shared Vision Programme
TAC	Technical Advisory Committee
TECCONILE	Technical Co-operation Committee for the Promotion of the Development and Environmental Protection of the Nile Basin
UMA	Arab Maghreb Union
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNOSAA	Office of Special Adviser on Africa
VBA	Volta Basin Authority
VICMED	Establishment of a Navigational Line Between Lake Victoria and the Mediterranean Sea
WAPP	West Africa Power Pool
WB	World Bank
WMO	World Meteorological Organisation
WRM	Water Resources Management
ZAMCOM	Zambezi River Basin Commission

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1. Introduction

1.1 About this Study

1.1.1 Cooperative development of the transboundary Nile Basin water resources

The Nile Basin Initiative (NBI) is a ten-member intergovernmental partnership established by riparian countries of the Nile on February 22, 1999. The purpose of the Initiative is to provide a regional mechanism for joint action to deliver a Shared Vision Objective, which is "*to achieve sustainable socio-economic development through equitable utilization of, and benefit from the shared Nile Basin water resources*".

The NBI, on establishment, was mandated by the Nile Council of Water Ministers (Nile-COM) to implement the Nile River Basin Action Plan (NRBAP). This action plan was later refined and transformed into a portfolio of priority projects termed the Nile River Basin Strategic Action Program. The Strategic Action Program set out the specific objectives for the NBI and comprised of two components. The first component was termed the Shared Vision Sub-program and operated at basin wide level with the goal of building trust and capacity for Nile cooperation. The second component, which was termed the Subsidiary Action Programme, was designed to complement the actions under the Shared Vision sub-program. Under the subsidiarity principle, two branches of the SAP programme were set up: one in the Eastern Nile sub-basin (ENSAP) and the other in the Nile Equatorial Lakes sub-basin (NELSAP).

The Subsidiary Action Programmes have been running since establishment of the NBI and have served to promote regional transboundary investments and deliver tangible actions on the ground to build early confidence for cooperation and respond to the development needs and aspirations of the basin communities. Under the SAPs, the NBI has facilitated processes by which riparian countries identify and cooperatively implement investment projects that confer mutual benefits to member states.

In the Eastern Nile Sub-basin, projects prepared so far have focused on power interconnection and trade; watershed management; irrigation and drainage; and flood preparedness and early warning while in the Nile Equatorial Lakes sub-basin, the projects have focused on regional power interconnection and trade; regional power generation; multipurpose water resources development projects; integrated lake basin and fisheries resources management; irrigation development and water resources management; integrated river basin management and development; regional agricultural trade and productivity; development of multipurpose storage reservoirs and climate change mainstreaming.

1.1.2 Problem statement

There are a number of regional organizations in the Eastern Africa region, the NBI inclusive, that have overlapping mandates, and overlapping geographical jurisdiction, that are involved in the promotion of multi-sectoral investments within the Nile Basin. At present, there is no framework for coordination of investment project identification and preparation among the various regional organisations, and no mechanism for basin-wide project prioritization, or ensuring that the multi-sectoral projects promoted by the regional organisations are optimized from a basin-wide perspective and designed to deliver equitable benefits to all Nile riparians states. Furthermore, there is a lack of a common integrated multisectoral and multi-agency investment plan for the Nile River Basin. Such an investment plan would be a key tool for mobilization of resources towards the sustainable development and management of the shared Nile Water Resources.

1.1.3 NBI's new approach to investment facilitation

Through its Ten-Year Strategy (2017-2027), the NBI has introduced strategic shifts in the approach to investment project development and promotion, as a way of addressing the aforementioned problem. The main aspects of the change in approach are the following:

- *Inter-sectoral coordination* - strengthening, and helping to institutionalize, inter-sectorial coordination processes within countries with the aim of improving the aligning of the regional Nile investment agenda to national investment priorities and funding windows.
- *Transboundary facilitator* - strengthening NBI's service function to Nile riparian countries on investment pipeline coordination and preparation, with a focus on leveraging the comparative advantage of NBI's ability to provide the basin context to national projects, provide a jointly agreed approach to key transboundary challenges, and facilitate the conclusion of agreements amongst riparians for projects with transboundary impacts.
- *Basin-wide investment programing* – moving, at regional level, towards a basin-wide "Nile Investment Program" and introducing coordination mechanisms that provide high-level endorsed for Nile investment projects, and visible framework for prioritizing and mobilizing resources for investments aligned to the basin development goals. The NBI will also seek to bring together and leverage the NBI development agenda into continental and regional investment agenda that Nile Basin countries have subscribed to.
- *Scaling up* – building on the Rusumo experience to nurture and scale-up NBI's ability in facilitating joint investments in water resources and using it to foster closer cooperation in infrastructure development.

In line with this new approach, **Strategic Direction 1.7** of the NBI's Ten-Year Strategy (2017-2027) proposes to "strengthen basin investment program preparation and management". Under this Strategic Direction, the NBI plans to work with Nile riparian states, Regional Economic Communities (RECs) and other relevant regional and continental organisations, to develop a multisectoral and multi-country portfolio of basin-wide and regionally significant investments based on the outputs of its strategic water resources assessments and its existing sub-basin investment programs. Furthermore, the NBI intends to establish an investment support function through which it will coordinate, promote and follow up the preparation and implementation of the basin-wide investment program, in collaboration with the Regional Economic Communities in the Nile region.

The NBI will follow two mutually reinforcing approaches in establishing the basin-wide, multisectoral investment program termed the **Nile Basin Investment Programm**e (NBIP). In the first of the approaches, the NBI plans to set up an alliance of regional actors that have investment programs that can contribute to the emerging Nile Agenda as described by the six pillars of NBI's Ten-Year Strategy (2017-2027) and directives of the Summit of Heads of State of the NBI riparian countries. The key pillars of the emerging Nile agenda are: (1) water security; (2) energy security; (3) food security; (4) environmental sustainability; (5) climate change; and (6) transboundary water governance. Regional and continental actors expected to be brought into the alliance include the East African Community (EAC)/ Lake Victoria Basin Commission (LVBC), Intergovernmental Authority on Development (IGAD), Common Market for Eastern and Southern Africa (COMESA), Eastern Africa Power Pool (EAPP) and African Union Development Agency (AUDA-NEPAD). Concurrent with the formation of the alliance of regional actors for Nile investment, the NBI will be working to increase awareness and visibility for its own investment programme through the preparation, and regular update, of an "Annual Status Report on the NBI Investment Pipeline."

In the second of the approaches, the NBI will work to develop a Nile River Basin Management Plan (NRBMP) comprised of regionally optimized multisectoral priority investments that will generate a basket of benefits for all Nile riparian countries.

The first and second approaches will come together in the development of a multi-actor and multisectoral Nile Basin Investment Program (NBIP), which will be accomplished with the participation of the other regional actors making a contribution to the Nile development agenda (NELSAP, ENTRO, EAPP, LVBC, IGAD, etc.) The NBIP is envisaged to serve as a framework within which Nile riparian countries will prioritize and endorse packages of optimized investment projects. The Program will be designed to be a high-level coordination, resource mobilization and monitoring & evaluation mechanism for the multiple regional agencies that contribute to the Nile development agenda.

1.1.3 Approach for the study

The study, which was a desk-based review and analysis of publicly available information, describes the baseline situation and puts together relevant information on the investment agenda of the various regional actors to serve as a reference point for the discussions.

The focus areas of the study are three, namely:

1. Review of the mandates of the regional actors with a view to highlighting functions relevant to the development and implementation of the NBIP;
2. Review and analysis of the investment portfolio of the regional actors, and identification of projects aligned to the six pillars of the NBIP (i.e. water security, energy security, food security, environmental sustainability, climate change and transboundary water governance); and
3. Review of the institutional framework of the regional actors covering their governance systems, cross-linkages and coordination mechanisms. This review will inform the organisational architecture for the proposed multi-actor Nile Basin Investment Programme.

The regional actors that are the subject of the review are the inter-governmental mechanisms mandated by members states in disciplines pertinent to the Nile Agenda. They include the EAC/LVBC, EAPP, IGAD, COMESA and AUDA-NEPAD. To present a complete and balanced picture of the Nile Agenda, the NBI institutional arrangements and investment programme are reviewed alongside that of the other regional actors.

The study concludes with a brief discussion on the opportunities and challenges for development of the NBIP.

1.2 Regional Organisations

1.2.1 Regional Economic Communities (RECs) of the Eastern Africa Region

A **Regional Economic Community** (REC) is a group of countries organised into a legal entity by a multinational treaty aimed at the economic and social integration of the member countries of the group. The creation of RECs in Africa was championed in the 1990s by the Organisation of African Unity (OAU), which regarded these sub-regional groupings as the building blocks of an African Economic Community (AEC) and vehicles for achieving full economic integration on the African continent. This viewpoint was later embraced by the African Union (AU), which succeeded the African Union in 2002. Today, the RECs provide a critical mechanism for implementing the AU's New Partnership for Africa's Development (NEPAD) and promoting peace, security and stability on the African continent.

Currently, there are eight (8) RECs recognized by the African Union, each established under a separate regional treaty and with its own criteria for membership. They are:

1. Arab Maghreb Union (UMA).
2. Common Market for Eastern and Southern Africa (COMESA).
3. Community of Sahel-Saharan States (CEN-SAD).
4. East African Community (EAC).
5. Economic Community of Central African States (ECCAS).
6. Economic Community of West African States (ECOWAS).
7. Intergovernmental Authority on Development (IGAD).
8. Southern Africa Development Community (SADC).

The officially recognized RECs in the East African region are three, namely the Common Market for Eastern and Southern Africa (COMESA); East African Community (EAC); and Intergovernmental Authority on Development (IGAD). These are the three RECs that were reviewed under this study.

Also present in the Eastern Africa region are RECs that are not recognised by the African Union. These include the Economic Community of the Great Lakes Countries (CEPGL), in which three of the NBI member states (Burundi, DR Congo and Rwanda) are members. One of CEPGL's daughter organisations – the Great Lakes Energy Agency (Energie des Grands Lacs – EGL) – functions like an RBO and is responsible for regional energy planning and hydro-electric power development on the Ruzizi River. These regional institutions were not reviewed under this study

In addition to the RECs of the Eastern Africa region, the AUDA-NEPAD, which coordinates infrastructure programs of regional significance within the African Union Commission, was reviewed. The proposed NBIP could become one of the processes for identification of regional investments to be promoted under the programmes coordinated by AUDA-NEPAD in the Africa Infrastructure Database (AID).

1.2.2 Other Specialized Regional Organizations

Within the African continent, there are a number of specialized regional organizations that facilitate the identification, preparation and implementation of infrastructure projects of regional significance. Organizations of this type include transboundary lake and river basin organizations (RBOs), regional power pools and transport corridor authorities.

For this study, one RBO was reviewed in addition to the NBI and its subsidiary arms (ENTRO and NELSAP-CU). This is the Lake Victoria Basin Commission (LVBC) – a permanent apex institution of the East African Community (EAC). Also reviewed under this study is the Eastern Africa Power Pool – a specialized institution of COMESA.

1.3 Organisation of the report

Section 2 that follows this introduction is used to review the functions and investment programs of the selected relevant Regional Economic Communities. Section 3 is used for reviewing investment project identification and promotion activities at the African Union Level. Section 4 is used to synthesize and draw key findings from the reviewed information while the final Section 5, states the key observations and recommendations with respect to the approach for development of the Nile Basin Investment Programme. The annex of the report is used to present tables of the investment programmes and projects of the selected regional institutions.

2. Infrastructure Investment Facilitation Activities of Regional Organisations

2.1 The Nile Basin Initiative

2.1.1 Historical Origins

The description of regional organisations under this study commences with the Nile Basin Initiative (NBI), which founded a gap of a regionally-coordinated, multi-sectoral and multi-actor investment programme for development of the River Nile Basin.

The NBI emerged from protracted dialogue and discussions that followed the closure of a WMO-funded hydrological observation project known as HYDROMET. Under the auspices of the Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile Basin (TECCONILE) that followed HYDROMET, the riparian countries adopted a Nile River Basin Action Plan (NRBAP) that included a Shared Vision towards which the countries collectively committed to work. Under the same framework of TECCONILE, the Policy Guidelines for the Nile River Basin Strategic Action Program was adopted alongside a plan of action for establishing the NBI. In accordance with the plan, minutes of Nile-COM formally establishing the NBI were adopted on February 22, 1999 and in May of the same year, the NBI Secretariat was set up in Entebbe.

Prior to the NBI, there had been other attempts to establish cooperative arrangements on the Nile that go back to the early 1960s. The NBI is unique from previous attempts at cooperation in two ways: (a) it represents the first effort at setting up an all-inclusive mechanism for cooperation on the Nile that brings together all Nile riparians; and (b) it makes an effort to tackle the issue of a legal framework for cooperative management of the shared Nile water resources alongside technical cooperation amongst basin states. Previous efforts at cooperation involved small groupings of Nile riparian countries and had a scope that was limited to technical cooperation. Ten of the eleven Nile Riparian countries (i.e. Burundi, D.R. Congo, Egypt, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda) are participating in the NBI (Figure 1) with Eritrea being the only county maintaining an observer status in the NBI.

Shortly after its establishment, the NBI set about implementing the Strategic Action Program, which was designed to move the riparian countries towards achievement of the Shared Vision. The Strategic Action Program consisted of two complementary sub-components, namely the Shared Vision Sub-Program and the Subsidiary Action Sub-Program. The two sub-programmes have been described in the preceding Section (Introduction). A third programme area of the NBI, which was kept separate from the above technical tracks, was the facilitation of dialogue and negotiations amongst the basin countries on the text and adoption of a new framework agreement on the Nile. This was a continuation of a project termed the 'D3 Project' conceptualized under TECCONILE.

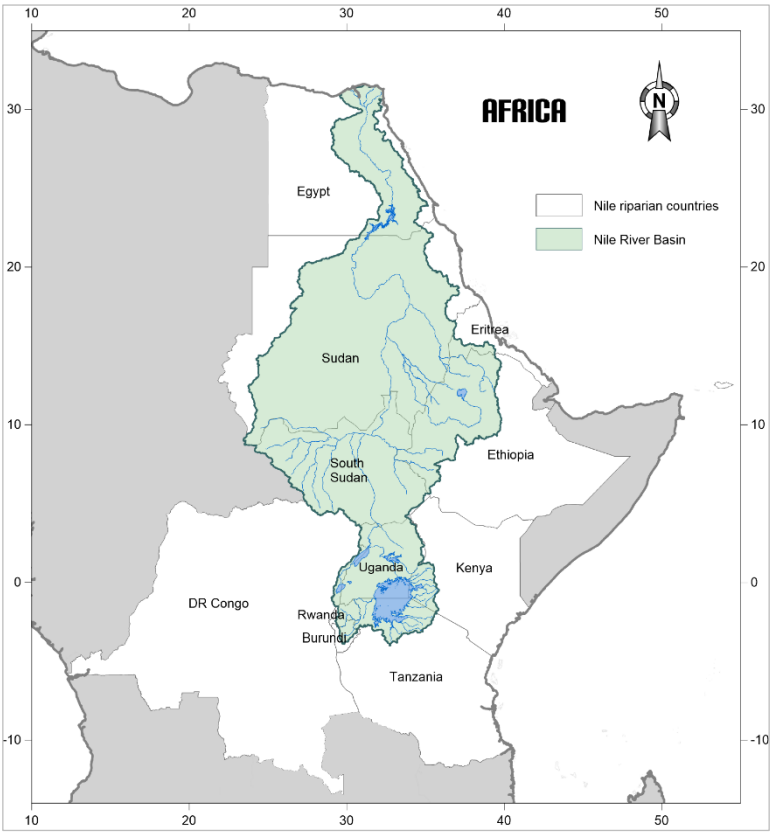

Figure 1: *The Nile River Basin and Nile riparian countries*

2.1.2 Core functions

The minutes establishing the NBI do not state in explicit terms the mandate and functions of the new institution. Notwithstanding, the purpose for establishment of the Initiative was clear and can be deduced from the objectives of the Strategic Action Plan.

After about 13 years of operation, the NBI in 2012 refined and summarised its 'core functions' as follows:

- *Facilitating cooperation*: The NBI provides the only all-inclusive regional platform for multinational and multi-stakeholder dialogue on the cooperative management and development of the shared Nile water resources.
- *Water resources management*: The NBI strengthens member states' institutional and technical capacities and provides analytic tools and a shared information system that enables Member States to monitor and sustainably manage the Nile Basin's water resources.
- *Water resources development*: The NBI assists Member States to identify development opportunities; prepare projects that are economically viable, environmentally friendly and socially acceptable; mobilize financial and technical resources for their implementation; and provide technical assistance during their implementation.

2.1.3 Institutional Framework – Basin-wide Level

The main governance organs in the institutional structure of the NBI are three: the Nile Council of Water Ministers (Nile-COM), Nile Technical Advisory Committee (Nile-TAC) and, the Nile Secretariat (Nile-SEC). The three organs are briefly described below.

- *The Nile Council of Water Ministers (Nile-COM)* – is the is the highest policy and decision-making body of the Nile Basin Initiative. The Council is comprised of Senior Ministers in charge of water affairs in the NBI member countries. The Council provides policy guidance to the NBI, approves its annual work plans, budgets and progress reports; appoints the Executive Director and other senior officials of the Nile Secretariat on the recommendations of the Nile-TEC, and ensures timely mobilisation of country contributions.
- *The Nile Technical Advisory Committee (Nile-TAC)* – provides advisory services to the Nile Council of Ministers, follows up on implementation of Council decisions; oversees the technical work of the Initiative, including the identification and preparation of programmes and projects; provides recommendations to Nile-COM on appointment of the Executive Director and other senior staff of the Nile Secretariat; supervises the activities of the Nile Secretariat and; head the National NBI Offices in the Member Counties. The Committee is made up of senior government officials with expertise, knowledge and practical experience in integrated river basin management and development.
- *The Nile Basin Secretariat (Nile-SEC)* – is the executive organ of the Nile Basin Initiative (NBI). It serves to execute the programs and activities of the Nile Basin Initiative while supporting and facilitating the operations of the Nile Council of Ministers (Nile-COM) and the Nile Technical Advisory Committee (Nile-TAC) through the provision of general secretariat services. It further serves as the Headquarters of the Nile Basin Initiative. The Secretariat is located in Entebbe, Uganda.

2.1.4 Institutional Framework – Sub-Basin Level

As described in the Introduction Section, the Nile riparian countries, under the subsidiary principle, have established two sub-basin organisations as being the investment arms of the NBI: one in the Eastern Nile sub-basin, with its secretariat known as the Eastern Nile Technical Regional Office (ENTRO) based in Addis Ababa, Ethiopia; and the other in the Nile Equatorial Lakes region, with its secretariat known as the Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU) based in Kigali, Rwanda.

Each of the sub-basin organisations has its own governance system (i.e. a council of ministers supported by a technical advisory committee and secretariat) that operate alongside the basin-wide governance system. Like the Nile Secretariat, the sub-basin secretariats (ENTRO and NELSAP-CU) provide general secretariat services to their sub-basin governance bodies and execute the work under the Subsidiary Actions Programmes (SAPs) of the two sub-basins.

The sub-basin Secretariats support the mission of the Subsidiary Action Programs to deliver concrete actions on the ground and provide early benefits of cooperation to the Nile riparian

communities. Working together with the countries, ENTRO and NELSAP-CU help to identify potential investment areas; carry out prefeasibility, feasibility and design studies; prepare projects to a bankable stage; mobilise finances for their implementation; and pass them on to the countries for implementation.

To support this focus on investment project preparation, the staffing at the Sub-basin secretariats is much more diversified than at the Nile Secretariat. In addition to the general type of staff employed by the Nile Secretariat, for the purpose of project preparation, the Sub-Basin Secretariats commonly employ civil engineers, hydropower engineers, irrigation and drainage engineers, agronomists, economists, procurement experts, environmental scientists and social development officers. Expertise in financial resources mobilisation is engaged on short-term basis from time-to-time by the sub-basin secretariats.

2.1.5 NBI Investment Programmes and Projects

Types of Projects Supported

The primary function of NBI's two Subsidiary Action Programs (SAPs) is to coordinate the identification and preparation of investment projects – projects that respond to the development needs and aspirations of the basin communities, support the sustainable management and development of the shared Nile water resources, and help foster trust and confidence amongst the riparian countries. The types of projects that the two SAPs can support are described in the Policy Guidelines for the Strategic Action Program (1999), and include the projects listed in the table below. Typical projects prepared by the two sub-offices involve two or more Nile riparian countries and tackle development opportunities with a transboundary dimension.

Table 1: *Types of projects that can be supported under the Subsidiary Action Programs*

PROGRAM/PROJECT TYPES	EXAMPLES
GENERIC WATER RESOURCES MANAGEMENT PROJECTS	(a) Water supply and sanitation; (b) Irrigation and drainage development; (c) Fisheries development; (d) Hydropower development and pooling; (e) Watershed management; (f) Sustainable management of wetlands and biodiversity conservation; (g) Sustainable management of lakes and linked wetland systems (h) River regulation; (i) Flood management; (j) Desertification control; (k) Water hyacinth and weeds control; (l) Pollution control and water quality management; and (m) Water use efficiency improvements.
OTHER RELATED JOINT DEVELOPMENT PROJECTS	(a) **Infrastructure**: power interconnection, telecommunication development and regional transport, including: railway and road networks; river and marine navigation; aviation; (b) **Trade and industry**: promotion of cross border trade; industrial development; regional tourism development; promotion of private investment and joint ventures; marketing and storage of agricultural products and forest crop harvesting; and (c) **Health, environment**: protection of wildlife, environmental management and disaster forecasting and management.

The Eastern Nile Subsidiary Action Program

Through the Eastern Nile Subsidiary Action Program (ENSAP), the Eastern Nile countries - Egypt, Ethiopia, and Sudan – have initiated a regional, integrated, multipurpose program with a first set of investments that confer tangible win-win gains and demonstrate benefits of joint action for the countries. The Eastern Nile Subsidiary Action Program comprises of several projects that are briefly outlined below.

a. *Flood Preparedness and Early Warning Project (FPEW) (2007-2010)* The objectives of the Eastern Nile (EN) Flood Preparedness and Early Warning (Phase 1) Project were to establish a regional institutional framework for flood forecasting, mitigation and management; strengthen the capacities of the EN countries in flood risk monitoring and management; promote regional cooperation; and enhance the readiness of the EN countries in implementation of the subsequent phases of FPEW projects. Outputs of the Phase I project included the development of detailed baseline information for flood management in the EN countries, and preparation and dissemination of flood risk mapping products.

b. *Eastern Nile Planning Model (ENPM) (2009-2012).* The idea behind the EN Planning Model Project was to facilitate the process of the Eastern Nile countries (Egypt, Sudan and Ethiopia) jointly developing, adopting and operating an improved decision support modeling framework to support the identification and evaluation of water-related investments within a regional planning context. The project continues to serve the function of assisting in identifying, evaluating and prioritizing projects as part of the investment planning process in the Eastern Nile.

c. *Ethiopia-Sudan Interconnection (2007-2013).* This project set out to promote regional power trade through the introduction and strengthening of coordination in planning of multi-purpose water and energy development projects in the region, and the construction of transmission interconnections between the national grids of the Eastern Nile countries. Outputs under the Project included the construction of a double circuit 230 kV transmission interconnection between Ethiopia and Sudan and establishment of Power Trade Coordination mechanism between them. The project also contributed to increasing the reliability of power supply by taking advantage of the hydro-thermal complementarities and the variability of the peak demand in the power systems of the two countries.

d. *Eastern Nile Watershed Management Project (2009-2015).* The aim of the project was to increase the adoption by the Eastern Nile countries of sustainable land and water management practices in selected micro-watersheds. The project had a regional component as well as national projects in each of the countries. Efforts are ongoing under the NBI NCORE Project to scale up the project.

e. *Eastern Nile Irrigation and Drainage Project (2008-2015).* The objective of the project is to sustainably increase agricultural output and productivity in the Eastern Nile so as to contribute to the long-term goal of: (a) attaining food security; (b) improving rural employment opportunities, livelihoods and income; and (c) reducing rural poverty in the Eastern Nile countries. Project interventions were focused in three areas, namely irrigation development, agricultural trade and market development, and irrigation management.

f. *Eastern Nile Power Trade Program (2005-2008).* This project helped to develop an initial knowledge base on energy sector profiles and projections, assess power trade markets, develop investment criteria and prepare an outline of coordinated supply and transmission investment planning, and formulate a power trade strategy and prioritized regional investment program. Under the project, pre-feasibility studies were carried out for three potential hydropower sites at Mandaya (Ethiopia), Border (Ethiopia) and Dal (Sudan).

g. *Joint Multipurpose Program (2009-2012).* This project assisted the Eastern Nile countries (Egypt, Ethiopia and Sudan) to identify and prepare a joint multipurpose investment package. The project conducted a series of studies on the economic, social, and environmental sustainability of potential investments. Project outputs included an information base (the One System Inventory with related Atlas) for investment planning and decision making.

The Nile Equatorial Lakes Subsidiary Action Program

The Nile Equatorial Lakes Subsidiary Action Program, like the sister program in the Eastern Nile, comprises of a number of investment projects that confer tangible win-win gains and demonstrate benefits of joint action for the Nile Equatorial Lakes (NEL) countries. The programmes are briefly outlined below.

a. *Strategic/Sectoral Social and Environmental Assessment of Power Development Options (2004-2005)*. This study developed an indicative power development strategy that was approved by the Nile Equatorial Lakes Energy Ministers in 2005. The Strategy identifies relevant actions needed to meet a medium level of growth in the demand for electricity in the NEL region and includes a portfolio of project options, including recommendations for further studies for identified power options. The strategy provided a basis for preparation and implementation of power investments in the NEL region.

b. *The NEL Multi sector investment opportunity analysis (2012-2014)*. This study developed an indicative strategy and investment plan for the Nile Equatorial Lakes Subsidiary Action Program (NELSAP). Thematic areas for project preparation identified under the study were: (a) livelihood-based watershed management; (b) expansion of economically viable irrigation; (c) improved water supply and sanitation; (d) development of the non-consumptive use of the NEL region's water resources for socio-economic development; and (v) optimization of the management of the NEL region's water resources to ensure guaranteed environmental flows and satisfaction of competing demands. The strategy has provided a basis for preparation and implementation of muulti-sectoral investment projects in the NELSAP region.

c. *Natural Resources Management and Development (2005-ongoing)*. Three transboundary river basin management and development projects have been under implementation in the Mara, Sio-Malaba-Malakisi, and Kagera River Basins. There is also a transboundary lake basin fisheries and water resources management project on the Lakes Edward and Albert. The expected outcomes of the projects are appropriate institutional cooperative frameworks agreed, baseline natural resources and socio-economic information generated, investment plans agreed upon and financial and technical resources mobilized for downstream investment activities.

d. *Regional Agricultural Trade and Productivity Project (2008-2012)*. This project aimed to increase knowledge within NBI institutions on agriculture practiced in the basin, and

promote economically viable investments in agriculture that, among other things, seek to promote more efficient use of water resource in agriculture. Project outcomes included: (a) presentation to the NBI governing bodies of options for an NBI agricultural agenda; (b) analytical tools developed and information disseminated to increase water use productivity in basin agriculture; and (c) analytical tools developed and information disseminated to promote agricultural trade in the Nile Basin. A follow up program is planned subject to availability of funds.

e. *Nile Equatorial Lakes Water Resources Development Project (2010-2012).* The project sought to identify and advance the preparation of a portfolio of water resources development projects within a broader coordinated water related investment strategy for the Nile Equatorial Lakes region. Through this project, multipurpose water resources development and irrigation projects have been prepared and are under implementation in the Yala, Gucha Migori and Kyoga basins in Kenya and Uganda. Irrigation and drainage projects have also been initiated in the northern parts of Tanzania.

f. *The Regional Rusumo Falls Hydroelectric and Multipurpose Project (RRFP) 2007-2020.* This is a joint venture being implementation by Burundi, Rwanda and Tanzania with financing from the World Bank and AfDB. The project objective is to increase power supply to the three countries. Key targets of the project include: (a) development of 80 MW in HEP generation capacity; (b) generation of 448 GWh per year on average from the commissoined facility; and (c) construction of transmission lines in the beneficiary countries – 161 km in Burundi, 119 km in Rwanda and 98.20 km in Tanzania. Construction activities under the project are ongoing.

g. *The NELSAP Transmission Interconnection project (2007-2017).* This project aims to put in place investments that will create a solid backbone for power trade in the NELSAP region. The project is developing new power interconnection between the NEL countries that will complement the power transmission lines to be developed under the Regional Rusumo Falls Hydroelectric and Multipurpose Project. The proposed interconnections, which are presently under implementation, are between Kenya and Tanzania, Uganda and the DR Congo, and Tanzania and Zambia.

The NBI Portfolio of Investment Projects

The portfolio of NBI investment projects, which is the output of the programmes of the two SAPs, is presented in a tabular form in Annex1. The portfolio comprises of 71 projects falling under three broad themes, namely water resources management and development (40 projects); power development and trade (28 projects) and transport and navigation (3 projects). The 71 projects are at various stages of preparation and implementation.

2.2 East African Community and Lake Victoria Basin Commission

2.2.1 Historical Origins and the EAC Treaty

The East African Community (EAC) is a regional intergovernmental organization made up of six Eastern African states, namely Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda. All six EAC Partner States are Nile riparian countries. The EAC was established through a treaty (Treaty

for the Establishment of the East African Community) that was signed on 30th November 1999 by three founding member (Kenya, Tanzania and Uganda) and entered into force on 7th July 2000. The Republics of Burundi and Rwanda acceded to the EAC Treaty on 18th June 2007 and became full members of the Community from 1st July 2007[1] while South Sudan acceded to the treaty in April 2016 and become a full member from 5th September 2016.

The EAC's mission is to widen and deepen economic, political, social and cultural integration in order to improve the quality of life of the people of East Africa through increased competitiveness, value added production, trade and investments. The EAC has its head office in Arusha, Tanzania from where a number of its organs operate

Together, the six East African countries cover an area of 2.47 million km^2 (about 6% of the land area of the African continent), have an estimated population of 173.6 million and a combined GDP (PPP) of US$ 472 billion. The peoples and countries of the region share history, language, culture and infrastructure. These advantages provide the partner states with a unique framework for regional co-operation and integration.

The Treaty establishing the EAC is a framework agreement for cooperation in a wide range of areas related to socio-economic development. The principal provisions of the treaty with respect to the water resources management are the following:

(a) Article 94 (Inland Waterways Transport) – provides for harmonisation of inland waterways transport policies, regulations, rules and regulations; improving cargo handling facilities; harmonising rules for packaging; marking and loading; harmonising tariffs; improving maritime communication and safety; controlling water hyacinth infestation; undertaking joint ventures in inland water transport;

[1] Information about the treaty obtained from: http://www.eac.int/treaty/

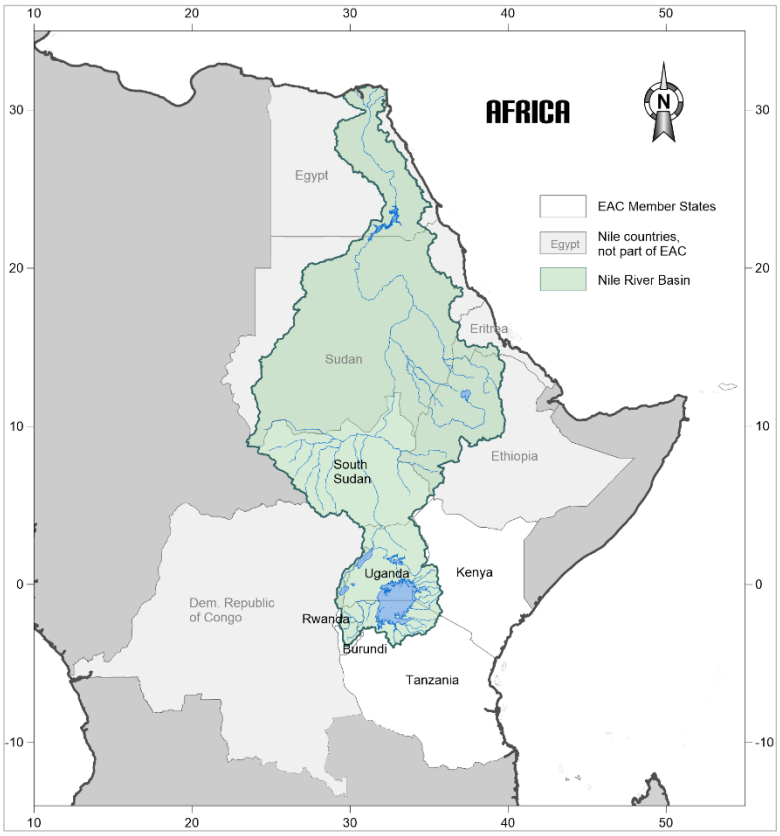

Figure 2: *The Nile River Basin and EAC Partner States*

(b) Article 100 (Meteorological Services); Paragraph 1(c)– provides for the exchange of data on meteorological observations;

(c) Article 114 (Management of Natural Resources); Paragraph 1(c) – provides for Partner States to adopt common regulations for the protection of shared aquatic and terrestrial resources;

(d) Article 114 (Management of Natural Resources); Paragraph 2(b) – provides for Partner States to cooperate in:

a. Establishing and adopting common regulations for management and development of marine parks, reserves, wetlands and controlled areas;
b. Establishing common fisheries management and investment guidelines for inland and marine waters
c. Strengthening of regional natural resources management bodies; and
d. Establishing a body for the management of Lake Victoria.

(e) Article 109 (Irrigation and Water Catchment Management) – provides for the Partner States to cooperate in expanding agricultural land through irrigation development and water catchment strategies, including rainwater harvesting.

2.2.2 EAC Institutional Framework

The key governance organs of the EAC are the following:

- *The Summit* – is comprised of the Heads of State or Government of the Partner States and serves to give general direction and impetus to the development and achievement of the objectives of the East Africa Community Treaty. The Summit meets at least once in a year during which it considers annual progress reports of the Community and other reports presented to it by the Council of Ministers. The Summit also regularly reviews the state of peace, security and good governance within the Community, and the progress being made towards establishment of the political federation of the Partner States.
- *The Council of Ministers* – is comprised of the Ministers responsible for East African Community Affairs of the Partner States, other Ministers designated by each Partner State, and the Attorney General of each Partner State. The Council of Minsters is the policy organ of the East African Community: it makes decisions, issues policy decisions and directives, promotes, monitors and keeps under constant review the implementation of the programmes of the Communities, and ensures the proper functioning and development of the Community in accordance with the EAC Treaty. The Council of Ministers meets at least twice in a year, with one meeting taking place immediately before the Summit meeting.
- *The Co-ordinating Committee*- is comprised of Principal and Permanent Secretaries responsible for East African Community Affairs in the Partner States, and any other Permanent Secretaries as determined by each Partner State. The Co-ordinating Committee implements the decisions of the Council of Ministers, coordinates the activities of the Sectoral Committees, and regularly prepares and submits reports and recommendations to the Council of Ministers on matters concerning implementation of the EAC Treaty.
- *Sectoral Committees* – the sectoral committees are comprised of Senior Officials from the Sectoral Ministries of the Partner States, and experts from relevant regional organisations. The main functions of the Sectoral Committees are to set out priorities in their respective sectors, prepare a comprehensive implementation programme for their respective sectors, and monitor and keep under constant review the implementation of programmes in the Community in their respective sectors.
- *The East African Court of Justice* – is a judicial body whose function is to ensure the adherence to law in interpretation and application of, and compliance with, the EAC Treaty.
- *The East African Legislative Assembly* – the Assembly, which is the legislative arm of the Community, is comprised of nine members elected by each Partner State and ex-officio members consisting of the Senior Minister and Deputy Ministers responsible for East African Community Affairs of each Partner State; the Secretary General of the Community, and the Counsel of the Community. The Assembly debates and approves the work plan and budget of the Community, discusses all matters pertaining to the community, makes recommendations to the Council that it deems necessary for the implementation of the EAC Treaty, and debates and passes bills that will become Acts of the Community after assent by the Heads of State and Government of the Partner States.
- *The Secretariat*- the Secretariat, which is based in Arusha, Tanzania, is the executive organ of the Community. The Secretariat is headed by a Secretary General, assisted by Deputy Secretary Generals, a Counsel to the Community (the principal legal advisor of the

Community) and several other officers as determined by the Council. Among other things, the Secretariat is responsible for strategic planning, resource mobilisation, and monitoring of implementation of programmes of the Community.

In addition to the above organs, the Community also has nine semi-autonomous institutions that help to implement its mandate. The institutions are:

1. the Civil Aviation Safety and Security Oversight Agency (CASSOA);
2. the East African Competition Authority (EACA);
3. the East African Development Bank (EADB);
4. the East African Health Research Commission (EAHRC);
5. the East African Kiswahili Commission (EAKC);
6. the East African Science and Technology Commission (EASTECO);
7. the Inter-University Council for East Africa (IUCEA);
8. the Lake Victoria Basin Commission (LVBC); and
9. the Lake Victoria Fisheries Organization (LVFO).

2.2.3 EAC Development Strategy 2016 – 2021

The 5th EAC Development Strategy for the period 2016/17-2020/2021 outlines the broad strategic development objectives that the Community will pursue during the five years from 2017 to 2021 in line with the EAC Treaty and the EAC Vision 2050. Formulation of the Strategy considered the obligations of the Community within the development frameworks at intra and inter-regional, continental and global levels (EAC Partner States, COMESA, SADC, AU Agenda 2063 and the Post-2015 UN Development Agenda). The overall goal of the 5th EAC Development Strategy is to build a firm foundation for transforming the East African Community into a stable, competitive and sustainable lower-middle income region by 2021. To realise this goal, the Community is focusing on seven (7) key priority areas, namely:

- Consolidation of the Single Customs Territory (SCT).
- Infrastructure development in the region.
- Enhancing free movement of all factors of production across the Partner States.
- Enhancement of regional industrial development.
- Improvement of agricultural productivity and value addition.
- Promotion of regional peace, security and good governance.
- Institutional transformation at the regional and Partner State levels.

The EAC Development Strategy also articulates eleven (11) Strategic Development Objectives (SDOs) to be attained over the 5-year planning period. These are:

1. accelerating and consolidating sustainable production, productivity, value addition, trade and marketing in key regional growth and productive sectors – with emphasis on rural development, agriculture, fisheries, livestock, food and nutrition security, and high value industrialisation;
2. investing in enhancement of the stock and quality of multi-dimensional strategic infrastructure and related services, to support and accelerate sustainable regional integration and competitiveness;
3. strengthening the social dimensions of the regional integration process to deliver quality, effective and efficient socio-economic services – with emphasis on enhancing human

capital development, gainful employment and decent work, health status, as well as overall welfare of the people of East Africa.

4. strengthening mechanisms and strategies for ensuring enhanced investment in clean and sustainable energy production and access, as a driver and enabler of economic competitiveness and sustainable regional development;
5. increasing investment in Science, Technology and Innovation (STI), as key drivers and enablers of sustainable regional development and socio-economic transformation, as well as creating an enabling environment for their application; and
6. enhancing regional mechanisms and strategies for ensuring sustainable natural resource utilisation and conservation, environmental sustainability and climate change management.
7. attaining a fully functioning Customs Union;
8. accelerating the full implementation of the Common Market Protocol, including protection of fair competition, and of the Monetary Union;
9. accelerating strategies and mechanisms for establishment of a Political Federation, with emphasis on ensuring sustained stability, political commitment, good governance and accountability.
10. developing and strengthening the capacity of all EAC Organs and Institutions to effectively execute their mandates; and
11. enhancing knowledge management, information sharing, awareness creation and participation of the East African people in the integration process.

Of relevance to this study is the prioritization of improving sustainable production and productivity in multiple sectors including agriculture, fisheries, livestock and food and nutrition security; investment in multi-dimensional strategic infrastructure and related services; investment in clean and sustainable energy production and access; and ensuring sustainable natural resource utilisation and conservation, and environmental sustainability and climate change management. These Strategic Development Objectives map onto four (energy security, food security, environmental sustainability and climate change adaptation and mitigation) of the six pillars of NBI's Ten-Year (2017-2027) Strategy.

The above Strategic Development Objectives are being operationalised by appropriate sets of Strategic Interventions at Pillar, Sectoral, Sub-sectoral, Organ and Institution levels.

2.2.4 EAC-African Union relations

EAC is one of the more mature RECs on the African continent and an active participant in continental programs of the African Union. The EAC participates in all six theme areas of NEPAD programmes, namely (a) agriculture and food security; (b) climate change and national resource management; (c) regional integration and infrastructure; (d) human development; (e) economic and corporate governance; and (f) cross-cutting Issues, including gender, capacity development and ICT. The EAC is particularly quite involved with the NEPAD-IPPF (NEPAD Infrastructure Project Preparation Facility) through which infrastructure projects (including water infrastructure) are prepared.

2.2.5 The Lake Victoria Basin Commission

The Partner States of the East African Community recognise the Lake Victoria Basin as an "*area of common economic interest*" and a "*regional economic growth zone*" to be developed jointly. Accordingly, under the EAC Treaty, the Partner States agreed to establish a dedicated body for the management of Lake Victoria and its watershed. The dedicated body is the Lake Victoria Basin Commission (LVBC), which was established soon after the adoption of the EAC Treaty.

The LVBC, which operates from a regional secretariat in Kisumu, Kenya, is a permanent apex institution of the East Africa Community and fully-fledged Lake Basin Organisation. The protocol establishing the LVBC – the Protocol for the Sustainable Development of the Lake Victoria Basin (2003) – conferred to the regional body a very broad mandate related to the promotion, coordination and facilitation of initiatives aimed at the socio-economic development of the Lake Basin, and sustainable management of its rich diversity of environmental and natural resources.

Specific roles and functions of the Commission that are related to regional investments are the following, to:

a. Providing a permanent forum for consultations and cooperation amongst Partner States on the sustainable management and development of the water and environmental resources of the Lake Victoria Basin;

b. Developing guidelines for performing Environmental and Social Impact Assessment (ESIA) and Environmental Audit (EA) on projects with potential or real transboundary impacts; promote harmonisation between national guidelines on ESIA and EA and the LVBC guidelines

c. Reviewing and approving Environmental and Social Impact Assessments (ESIAs) and Environmental Audits (EAs) for projects of the Partner States that have significant potential impacts on the water and environmental resources of the lake basin;

d. Promoting the sustainable management and development of water, fisheries, forests, wetlands and biodiversity resources of the basin with a special focus on poverty eradication;

e. Promoting sustainable agriculture (including irrigation) and land use practices in the basin;

f. Promoting the development and harmonisation of policies, plans, programs and infrastructure in the following areas: inland waterways and ports; telecommunications and postal services; roads and railway systems; air transport; meteorological services; power generation, interconnection and transmission; and information and communication technologies.

g. Supporting the maintenance of maritime safety and security; coordinating Partner States' activities to control piracy and banditry on the lake, islands and lake shores; control smuggling of goods across the lake.

h. Promoting improvement in public health with a special focus on sanitation.

i. Promoting pollution control and environmental protection and conservation in the lake basin including controlling and eradicating water hyacinth.

j. Promoting wildlife conservation and sustainable tourism development.

k. Mainstreaming gender concerns in all aspects of the sustainable management and development of the natural resources of the Lake Victoria basin;

l. Promoting collaboration and coordinating and facilitating joint studies and research into various issues related to the sustainable management and development of the water and environmental resources of the lake basin; promoting the exchange of research findings amongst stakeholders in the Partner States;

m. Consolidating national strategic plans and programs into a regional strategic plan and program for the conservation and sustainable management and development of the Lake Victoria Basin.

n. Mobilise resources for the implementation of programmes and projects of the Commission.

2.2.6 The Institutional Framework of the LVBC

The Lake Victoria Basin Commission comprises of four governance organs as follows:

- *Sectoral Council* – is the supreme policy body of the Commission. The Sectoral Council (SECOM), which comprises of Senior Ministers in charge of water affairs in the Partner States, makes decisions, issue directives and policy directions, makes regulations, guides the implementation of development programmes, and approves the programme of work of the Commission.
- *Coordination Committee* – is responsible for implementation of the decisions of the Sectoral Council, overseeing the work of the Sectoral Committees and the Secretariat and preparing reports to the Sectoral Council on implementation of the Protocol on Sustainable Development of the Lake Victoria Basin. The Coordination Committee consists of Principal and Permanent Secretaries of the Sectoral Ministries of the EAC Partner States. The Coordination Committee meets at least twice in a year preceding the meetings of the Sectoral Council.
- *Sectoral Committees* – perform specific tasks assigned by the Coordinating Committee and have broad composition coving all of the areas under the protocol. The Sectoral Committees are composed of Senior Officials from the Sectoral Ministries of the Partner States, Heads of Public Institutions, representatives of regional institutions, representatives from sectors covered under the protocol and from the business community and civil society.
- *Secretariat* – headed by an Executive Secretariat, the Secretariat is responsible for offering general secretarial services to the Sectorial Council, Coordination Committee and Sectoral Committees, and implementation of the work of the Commission following the policies, decisions and directives of the Sectoral Council. Among other things, it is responsible for programme development and implementation, and resources mobilisation, with guidance and oversight of the other governance organs.
- *National Focal Points* – in addition to the above four governance organs, the Partner States have designated National Focal Points, which are responsible for coordinating national initiatives related to the Lake Victoria Basin, and sharing information with the Basin Commission and other stakeholders.

2.2.7 LVBC Programmes and Projects

The Lake Victoria Basin Commission has implemented several major programmes and projects over the years. The main programmes and projects are the following:

1. Disaster Risk Reduction and Management Strategy and Program.
2. Lake Victoria Water Supply and Sanitation Program (LVWATSAN I and II)
3. Mount Elgon Regional Ecosystem Conservation Programme.
4. Lake Victoria Environnemental Management Project (LVEMP I and II).
5. EAC Backbone and Lake Victoria Maritime Safety Programme.
6. Mara River Basin Management Initiative (MRBMI).
7. Climate Change Adaptation and Mitigation in Eastern and Southern Africa.
8. Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED).
9. Climate Smart Agriculture and Roundtables.
10. Engaging Private Sector for Green Growth in Lake Victoria Basin (EPSGG-LVB).
11. Population, Health and Environment Programme (PHE).

The full list of the LVBC's programmes, including investment initiatives is shown in Annex 2. The list comprises of 29 projects falling under four broad themes, namely water supply, sanitation, waste management and population health (10 projects); climate change, environmental and natural resources management (9 projects); economic and infrastructure development (5 projects); and institutional development and capacity strengthening (5 projects).

2.3 Inter-Governmental Authority on Development

2.3.1 Historical origins of IGAD

The Inter-Governmental Authority on Development (IGAD) is a sub-regional economic block established in 1996 to replace the Intergovernmental Authority on Drought and Development (IGADD). IGAD currently comprises of eight members (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda) only two of whom (Djibouti and Somalia) are non-Nile riparians. The original organisation – IGADD – was created a decade earlier (1986) to coordinate the effort of member states (founding members are Djibouti, Ethiopia, Kenya, Somalia, Sudan and Uganda) in combating drought and desertification in the Greater Horn of Africa. In the restructuring and revitalization that preceded the establishment of the new institution, the IGAD mandate was broadened to enable it address peace security and stability challenges alongside economic cooperation and regional integration issues in the Greater Horn of Africa region.

Figure 3: *The Nile River Basin and IGAD Partner States*

2.2.2 IGAD Institutional Framework

The key governance organs of IGAD are the following:

- *The Assembly of Heads of State and Government*– the Assembly is the supreme organ of IGAD. The Assembly makes decisions and issues policy directives and directions, determines programmes of cooperation, monitors and provides guidelines on political issues, especially issues related to conflict prevention; approves membership contributions based on the recommendations of the Council of Ministers, and appoints the Executive Secretary upon the recommendation of the Council of Ministers. The Assembly of Heads of State and Government meets at least once a year.
- *The Council of Ministers* – is comprised of the Ministers of Foreign Affairs and one other focal Minister as determined by each Partner State. The main functions of the Council of Ministers is to make recommendations to the Assembly on matters of policy concerning the efficient functioning of Authority; monitor the implementation of the decisions of the Assembly; approve the budget of the Authority; oversees the activities of the Secretariat; promote peace and security in the sub-region and follow up on political and security matters, including conflict prevention and management, and post-conflict peace building. The Council of Ministers meets at least twice a year.
- *The Committee of Ambassadors* – the Committee of Ambassadors, which reports to the Council of Ministers, comprises of Member States' ambassadors or plenipotentiaries accredited to Djibouti - the country where the IGAD Headquarters is located. The function

of the Committee of Ambassadors is to advise the Executive Secretary on implementation of the Authority's work plan after its approval by the Council of Ministers, and guide him/her on implementation of policies and guidelines that may require further elaboration. The Committee of Ambassadors meets as and when required.

- *The Secretariat*- the Secretariat, which is based in Djibouti City, is the executive organ of the Community. The Secretariat provides secretariat services to the Assembly and Council of Ministers, and implements the decisions of these organs. It is also responsible for coordinating the identification, preparation and implementation of programmes and projects of the Authority. The Secretariat is headed by an Executive Secretary appointed by the Assembly of Heads of States and Governments.

In addition to the above governance organs, IGAD operates a number of specialized institutions that coordinate specific functions related to IGAD's mandate. The specialized institutes are the following:

1. Conflict Early Warning and Response Mechanism
2. IGAD Climate Prediction and Application Center (ICPAC)
3. IGAD Center for Pastoral Areas and Livestock Development (ICPALD)
4. IGAD Sheikh Technical Veterinary School
5. IGAD Center of Excellence in Preventing and Countering Violent Extremism

2.3.3 IGAD Mandate with Respect to Integrated Water Resources Management

The mandate of IGAD with respect to Integrated Water Resources Management (IWRM) is not explicitly defined but is implicit in references to natural resources and environmental management in the 1996 IGAD Agreement. Two articles of the IGAD Agreement – *Articles 7 and 13A* – deal with issues of mandate and functions and can be used to infer the IGAD mandate with respect to Integrated Water Resources Management (IWRM). Sections of the two articles with relevance to water management and NBI activities are summarised below.

Table 2: *Sections of the IGAD Agreement with provisions related to IWRM*

Article	Relevant Provisions
Article 7: Aims and objectives	(b) Harmonize policies with regard to trade, customs, transport, communications, agriculture, and natural resources, and promote free movement of goods, services, and people and the establishment of residence; (d) Achieve regional food security and encourage and assist efforts of Member States to collectively combat drought and other natural and man-made disasters and their consequences; (e) Initiate and promote programmes and projects for sustainable development of natural resources and environment protection; (f) Develop and improve a coordinated and complementary infrastructure, particularly in the areas of transport and energy; (h) Mobilize resources for the implementation of emergency, short-term, medium-term and long-term programmes within the framework of sub-regional cooperation.
Article 13A: Areas of cooperation	Member States agree to develop and expand cooperation and undertake to: (a) Enhance cooperation and coordination of their macroeconomic policies in the areas of sustainable agricultural development and food security; (b) Improve the handling and analysis of data in agro-meteorology and climatology, nutrition, social and economic indicators and establish a strong food information system.

Article	Relevant Provisions
	(e) Coordinate their effort to: preserve, protect and improve the quality of the environment; ensure the prudent and rational utilization of natural resources; develop harmonious environmental management strategies and policies; strengthen national and sub-regional meteorological networks and services; strengthen the hydrological networks and services; strengthen land resource monitoring systems; and promote environmental education and training. (f) Coordinate their efforts towards the sustainable management and utilization of shared natural resources. (m) Cooperate in increased sustainable utilization and development of energy resources in the sub-region, and in the gradual harmonization of their national energy policies and energy development plans.

2.3.4 IGAD Regional Water Resources Management Policy

Under the EU-supported Inland Water Resources Management Programme (INWRMP), IGAD in 2015 adopted a Regional Water Resources Management Policy. This policy provides IGAD with a clearer role with respect to water management. The objective of the policy is '*to promote closer cooperation in the equitable, sustainable and coordinated utilization, protection, conservation and management of transboundary/shared water resources in the IGAD region for poverty eradication, socio-economic development, regional integration, environmental sustenance and peaceful coexistence*'. The policy also seeks to increase integration in the management of water, land and other natural resources, and strengthen cross-sectoral coordination with respect to water management at regional, river basin and national levels.

Although the specific objectives and applicability statement of the policy appear to limit its scope to transboundary water resources management, the policy does in fact address many challenges related to national level water resources management. These include:

- Ensuring sustainable access to safe water supply and sanitation
- Service provision in urban, rural and peri-urban areas
- Prioritizing water allocation across competing uses
- Increasing cross-sectoral coordination for water management in the countries
- Promoting rainwater harvesting for agriculture, livestock and domestic water use.
- Carrying out water development for sports, tourism and recreation
- Application of the ecosystem approach for management of river/lake/aquifer basins
- Protecting human life, livestock, property and environment against floods, droughts and other water-related disasters.
- Protecting vulnerable groundwater recharge areas from pollution
- Promoting desalination, wastewater re-use and water recycling
- Promoting public-private partnerships for service delivery

Thus, the policy has broadened and strengthened IGAD's mandate in the area of Integrated Water Resources Management at transboundary level with direct implications for national level water resources management.

2.3.5 IGAD Programmes and Projects

Compared to other RECs in Africa, IGAD is relatively young with respect to coordinating regional water resources activities. Among other things, IGAD does not have a fully-fledged specialised unit to manage water affairs. Within IGAD, the function of coordinating water initiatives falls under the Directorate of Agriculture and Environment.

Despite being relatively young in the coordination of water activities, many water initiatives have been launched in IGAD, and the Authority's water portfolio is rapidly changing. The noteworthy programmes and projects implemented by IGAD that are related to water are briefly outlined below. A summary of relevant projects (14 in number) is included in the Annex 3. The IGAD Programmes and Projects map onto five of the six pillars of NBI's 10 Year Strategy – energy security is the only pillar where there is currently no IGAD programming. The key programmes are:

1. *Mapping, Assessment and Management of Transboundary Water Resources (MAMTWR) Project (2007-2011)* – this project was developed and implemented by the Sahara and Sahel Observatory (OSS) with funding from the African Water Facility to a tune of EUR 1.8 million. The purpose of the project was to provide an overview of prevailing water resources situation in the region, and inform the process of development of a regional water resources management strategy. The primary focus areas of the study were six, and included (1) the assessment of the physical potential and development needs of transboundary water resources in the region with an emphasis on resource potential assessments at transboundary river basins scale.; (2) assessment of water demand for major water use sectors including domestic water supply, agriculture, livestock, recreation, industry and environment/ecology and; (3) development of a roadmap for sustainable water resources management and establishment of transboundary river basin organisations.

2. *IGAD Integrated Shared Aquifer Resource Management Project (IGAD-ISARM) (2010-2014)* – The IGAD-ISARM Project was part of a worldwide initiative led by UNESCO and the International Association of Hydrogeologists (IAH), aimed at improving the understanding of scientific, socio-economic, legal, institutional and environmental issues related to the management of transboundary aquifers. The regional ISARM was designed to delineate and analyse transboundary aquifer systems and to encourage riparian states to work cooperatively toward mutually beneficial and sustainable aquifer development studies. These studies aimed to evaluate the potential and vulnerability of groundwater and assess how they might be exploited to meet the region's socio-economic needs.

3. *IGAD INWRM Programme (2013-2016)* – The IGAD Inland Water Resources Management Programme was a response of the IGAD Member States, with the support of the international community, to the region's chronic water related calamities. The Programme was implemented with funding of EUR 14.7 million from the European Union and focused on strengthening and consolidating the institutional basis and operations of IGAD in the area of water. Specific objectives were to strengthen national and regional capacities in water resources management, foster regional dialogue and deepen regional cooperation so as to achieve sustainable management of the surface and groundwater resources of the region. Key outputs included the development of an IGAD Water Dialogue Platform; analysis of existing water-related policy and legal frameworks in the IGAD Member States, identification of gaps and weaknesses and making recommendations for strengthening of the national frameworks; preparation of a Regional Water Resources Policy that was adopted by Member States in 2015 (discussed above); preparation of a draft IGAD Regional Water Resources Management Protocol for the sustainable management and development of transboundary water resources in the IGAD region and; preparation of a draft regional

policy on collection, processing, sharing and exchange of water related data and information; and support to the IGAD HYCOS Project.

4. *IGAD-HYCOS Project (2011-2015)* – The IGAD-HYCOS Project, which was a component of the INWRM program, was financed to the tune of Euros 6.627 million by the European Union with counterpart funding from the Member States. The World Meteorological Organisation was the implementing agency for the Project, which covered all eight Member States and two other East African countries (Rwanda and Burundi). The objective of the Project was to contribute to sustainable and integrated water resources management and development in the IGAD region though the enhancement of regional cooperation in the collection, analysis, dissemination and exchange of hydrological and hydrometeorological data and information. Activities under the project included the design of a regional water resources monitoring network comprising of hydrological, meteorological and water quality monitoring stations; procurement and installation of equipment at monitoring stations (including Data Collection Platforms) and; establishment of a regional database with national nodes to facilitate regional data sharing.

5. *IGAD Horn of Africa – Ground Water Initiative (IGAD HOAGWI).) (2019-2021)* – this project aims to strengthen the knowledge and analytical foundation for sustainable development of groundwater resources and support transboundary cooperation for groundwater management in the Horn of Africa region. Key interventions include capacity building in groundwater management targeting national level institutions for groundwater management and transboundary management as well as the IGAD Water Unit. The project will also promote discussions on the IGAD Regional Water Protocol and organise country exchange visits and study tours.

6. *IGAD Drought Disaster and Sustainability Initiative (IDDRSI) (2011 to present day)* – This initiative was a response to growing concern in the region on the severity and frequency of drought disaster emergencies, and the failure of past drought response approaches to address the issue. Under the new Initiative, the Members States of IGAD committed to do things differently: to employ preventive (rather than reactive or emergency); regional (rather than individual member state); twin-track (relief and development rather than humanitarian operations alone) and; holistic and multi-sectoral (rather than silos) approaches. The IGAD Secretariat has established an IGAD Regional Drought Resilience and Sustainability Platform as the mechanism for coordinating the Initiative's implementation. The Platform brings together partners and stakeholders including Member States, the IGAD Secretariat, Development Partners and implementing partners (who include UN agencies, Civil Society and specialized research and training institutions in the region). IGAD has received a pledge of US $ 300 million from the African Development Bank to support IDDRSI activities while several development partners (notably BMZ/GIZ; USAID; JFA; UNDP; FAO and AfDB) have provided support towards the building of the capacity of the IGAD Secretariat to among other things, coordinate the implementation of the IDDRSI Initiative.

2.3.6 The IGAD Regional Infrastructure Master Plan (IRIMP)

The African Development Bank in 2017 provided a grant of US $3.50 million to support the preparation of the IGAD Regional Infrastructure Master Plan (IRIMP). The IRIMP will be used to define priority regional infrastructure in the focus sectors of PIDA (i.e., transport, energy, ICT and transboundary water management). Unlike older RECs like SADC and EAC, IGAD does not have a regional infrastructure master plan. The IRIMP is one of the deliverables under the "IGAD Minimum Integration Plan/Road Map" towards creating a Free Trade Area (FTA) in the IGAD region and is a key instrument for delivering on the wider "Horn of Africa Initiative (HOAI).

The development and implementation of the infrastructure master plan is expected to spur broad positive socio-economic development impacts including physical and economic integration; job creation; enhanced opportunities for women (particularly in easing cross-border trade); increased business opportunities; improved access to infrastructure services; and generally improved quality of life of most of the population in the IGAD region. In addition, the IRIMP is expected to spur huge investment mobilization and financing attracted by well-prepared and bankable infrastructure projects.

2.4 Common Market for Eastern and Southern Africa (COMESA)

2.4.1 Historical Origins

The Common Market for Eastern and Southern Africa (COMESA) is a Free Trade Area and Regional Economic Community (REC) with twenty-one members stretching from Tunisia in North Africa to Eswatini in Southern Africa. The current members (in 2020) are: Burundi, Comoros, Djibouti, DR Congo, Egypt, Eritrea, Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Somalia, Sudan, Tunisia, Uganda, Zambia and Zimbabwe. Former members are Angola, Lesotho, Mozambique, Namibia and Tanzania.

The Agreement establishing COMESA was signed by 23 Eastern and Southern Africa countries in November 1993 and ratified in December 1994 in fulfilment of recommendations under the treaty on the Preferential Trade Area for Eastern and Southern Africa States (PTA) to transform the PTA into a common market and eventually an economic community for Eastern and Southern Africa. COMESA, which has its headquarters in Lusaka, Zambia is recognised by the African Union as a Regional Economic Community and is one of the pillars of the African Economic Community.

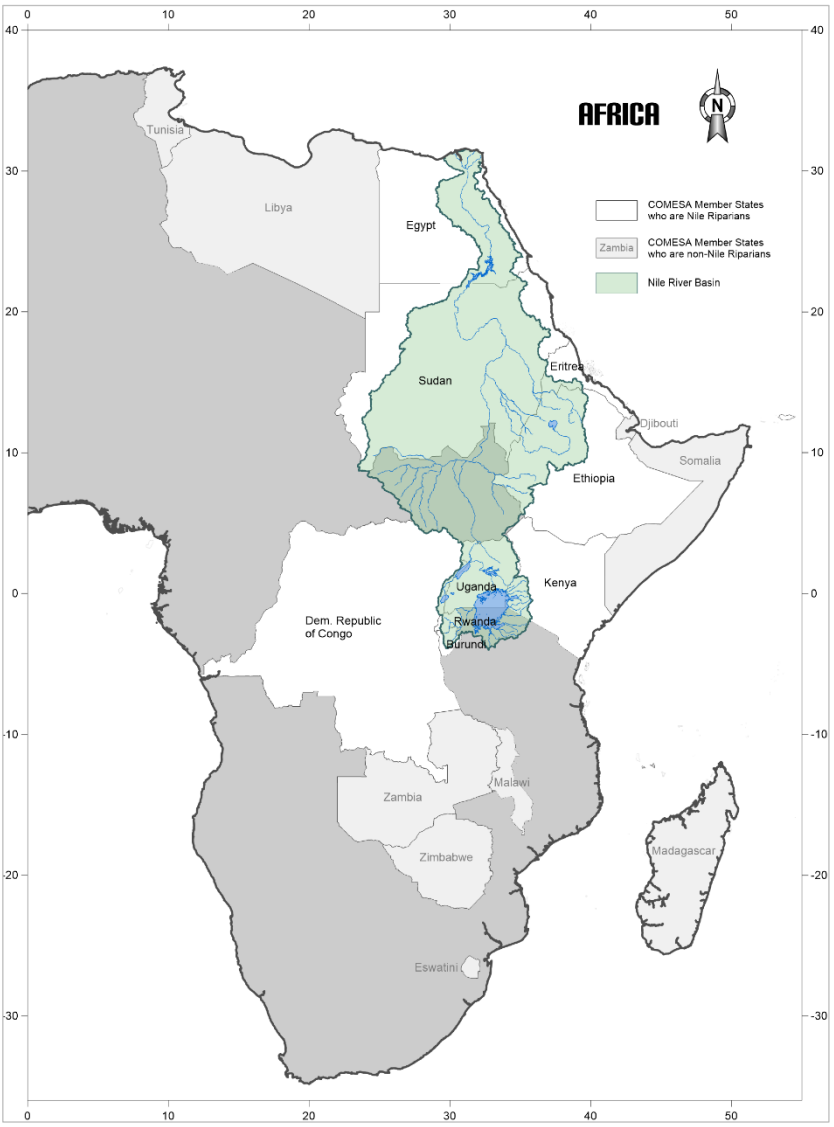

Figure 4: *The Nile River Basin and COMESA Member States*

2.4.3 COMESA mandate with respect to Integrated Water Resources Management

The aims and objectives of the Common Market, as set out under Article 3 of the Treaty, are the following:

1. to attain sustainable growth and development of the Member States by promoting a more balanced and harmonious development of their production and marketing structures;
2. to promote joint development in all fields of economic activity and the joint adoption of macro-economic policies and programmes to raise the standard of living of its peoples and to foster closer relations among its Member States;
3. to co-operate in the creation of an enabling environment for foreign, cross border and domestic investment including the joint promotion of research and adaptation of science and technology for development;
4. to co-operate in the promotion of peace, security and stability among the Member States in order to enhance economic development in the region;

5. to co-operate in strengthening the relations between the Common Market and the rest of the world and the adoption of common positions in international fora; and
6. to contribute towards the establishment, progress and the realisation of the objectives of the African Economic Community.

While not explicitly mentioned, cooperation in the sustainable management and development of transboundary water resources is implicit in the broad aims and objectives of the Common Market.

Under Article 4 of the Treaty, specific undertaking of the Member States that are required to promote the achievement of the aims and objectives of the Common Market, have been outlined. Specific undertaking relevant to the six pillars of the NBI's 10 Year Strategy (2017-2027) are summarized in the table below.

Table 3: *Relevant Specific Undertakings of the Member States under the COMESA Treaty*

Field of Cooperation	Selected Specific Undertakings
Transport and Communications	■ foster such co-operation among themselves as would facilitate the production of goods and facilitate trade in goods and services and the movement of persons.
Industry and Energy	■ provide an enabling, stable and secure investment climate.
Agriculture	■ co-operate in the agricultural development. ■ enhance regional food sufficiency. ■ co-operate in the export of agricultural commodities. ■ enhance rural development.
Economic and Social Development	■ co-operate in tourism and wildlife development and management. ■ co-operate in the development and management of natural resources, energy and environment.

Other articles of the Treaty provide more detailed elaboration of cooperation by Member States in the different fields of the Treaty. Selected areas of cooperation of relevance to this study are summarized in the Table below.

Table 4: *Relevant areas of cooperation amongst Member States under the COMESA Treaty*

Field of Cooperation	Specific Areas of Cooperation
Transport and Communications	■ Member States undertake to maintain, upgrade and rehabilitate the roads, railway, airports, and harbours in their territories and improve inter-state links so as to facilitate the movement of persons, goods and services within the common market; and review and re-design their inter-modal transport systems, and develop new inter-territorial routes of the common market. ■ Specifically with respect to inland water transport, Member States that have common navigable inland waterways undertake to adopt, harmonise and simplify rules, regulations, and administrative procedures governing their inter-state inland waterway transport; install and maintain efficient cargo handling equipment, cargo storage facilities, and general operations and train related manpower resources; adopt common rules to govern the packaging, marketing, loading and other procedures for their interstate inland waterway transport; wherever possible, promote cooperation among themselves by undertaking joint ventures in inland waterway transport, including the establishment of joint shipping services, and coordinate measures with respect to, and cooperate in the maintenance of, safety in inland water transport services.

Field of Cooperation	Specific Areas of Cooperation
Meteorological Services	Each member state is obliged to collect and disseminate to the other Member States meteorological information to facilitate the efficient operation of air navigation, coastal shipping, inland water transport and the issuing of cyclone warnings and other adverse weather phenomenon; and shall exchange information and expertise concerning new development in meteorological science and technology, including the calibration and comparison of instruments.
Energy Development	Member states under the treaty undertake to cooperate in the joint development and utilisation of energy resources including hydro, fossil and biomass. In particular, the countries undertake to cooperate in the joint exploration and exploitation of hydro and fossil fuels; creation of a favourable investment climate to encourage public and private investment in the energy sector, exchange of information on energy systems, and investment opportunities. The Member States further agree to develop mechanisms to facilitate trade in energy fuels and electricity, and cooperate in the interconnection of national electricity grids.
Development of Natural Resources, Environment and Wildlife	The Member States undertake, through a regional conservation strategy, to cooperate and coordinate strategies for the protection and preservation of the environment against all forms of pollution, including atmospheric and industrial pollution, pollution of water resources, and pollution from urban development.
Management of Natural Resources	The Member States agree to take concerted measures to foster cooperation in the joint and efficient management and sustainable utilization of the natural resources within the common market for the mutual benefit of the member states. In particular, the Member States agree to cooperate in the management of their natural resources for the preservation of the ecosystems and arrest environmental degradation; take necessary measure to conserve and manage forests; cooperate in the management of their freshwater and marine resources, including fisheries resources.
Management of the Environment	The Member States undertake to cooperate in the management of the environment through measures including the development of common environment management policies, and control of air and water pollution arising from mining, fishing and agricultural activities. To achieve the above objectives, Member States undertake to adopt sound land management techniques for the control of soil erosion, desertification and bush encroachment, and adopt common standards on the environment.
Agriculture and Rural Development	Member States undertake to cooperate in the agricultural sector to achieve regional food security and rational agricultural production within the common market. Specific fields of the agriculture in which member states undertake to cooperate include the development and utilization of land and water resources, particularly shared river and lake resources.
Rural Development	The Member States undertake to promote rural development through the adoption of measures such as improved water supply, health services, improved rural access roads, and means of transport and telecommunications; rural electrification and supply of wood fuel.
Drought and Desertification Management	The Member States undertake to institute appropriate measures to contain the effects of droughts by developing irrigation programmes, improving techniques in dry-land farming and use of drought tolerant crops.
Development and Utilization of Human Resource	The Member States agree to undertake concerted measures to foster co-operation in human resources development and greater utilization of human, technical know-how and institutional capability in all fields of activity in the common market.
Regional Peace and Security	Member states agree to foster and maintain an atmosphere that is conducive to peace and security through co-operation and consultations on issues pertaining to peace and security of the Member States with a view of preventing, better managing, and resolving inter-state and intra-state conflicts. The Member States undertake to promote and maintain good neighbourliness as a basis for promoting regional peace and security within the common market.

All six pillars of NBI's 10 Year Strategy (i.e. water security, energy security, food security, environmental sustainability, climate change adaptation and mitigation and transboundary water governance) are covered under the above areas of cooperation of the COMESA Treaty.

2.4.2 COMESA Institutional Framework

The COMESA Agreement established several organs of the common market as outlined below.

- *The Authority* – The Authority is the supreme policy organ of the common market. It consists of the Heads of State and Government of the Member States, and is responsible for general policy and direction, and control of the performance of the common market. The directions and decisions of the Authority are binding on all member states and organs of the common market. The Authority is headed by a chairperson, elected from among the Heads of States and Governments, for an agreed period. The COMESA Authority meets once a year at summits that are held in different member states.
- *The Council of Ministers* – The Council of Ministers is composed of ministers, designated by the Member States, who are responsible for coordinating COMESA affairs in their respective countries. The key function of the Council is to oversee the functioning and development of COMESA, and ensure the implementation of agreed programmes and policies. Specific responsibilities include making recommendations to the Authority on matters of policy; monitoring and ensuring the proper development and functioning of the common market; considering and approving the budgets of the COMESA Secretariat and Court; issuing directives in accordance with the provisions of the treaty; giving directions to all other subordinate organs of the common market other than the Court; making regulations; and making staff rules and regulations, and administration and financial regulations of the COMESA Secretariat. Ordinary meetings of the Council are held once in a year immediately preceding a meeting of the Authority.
- *The Intergovernmental Committee* - The Intergovernmental Committee is composed of Permanent or Principal Secretaries from the member states. Its responsibilities include developing programs and action plans in all sectors of co-operation, except in the finance and monetary sectors; and overseeing the implementation of programmes and provisions of the Treaty and; monitoring the functioning and development of the Common Market.
- *The Technical Committees* – The Technical Committees are comprised of sector-specific technical officials from the Member States. Twelve technical committees were established under Articles 15 and 16 of the COMESA Treaty. The committees are on administration and budgetary matters; agriculture; comprehensive information systems; energy; finance and monetary affairs; industry; labour, human resources and social and cultural affairs; legal affairs; natural resources and environment; tourism and wildlife; trade and customs; and transport and communications. The Technical Committees are responsible for the preparation of comprehensive implementation programs and action plans that serve to prioritize interventions with respect to each sector. They also monitor and review the implementation of the COMESA programmes, and prepare and submit reports to the Intergovernmental Committee on the implementation of the provisions of the Treaty. The Technical Committees may request the Secretary-General to undertake specific investigations.
- *The Secretariat* – The COMESA Treaty established a Secretariat headed by a Secretary General assisted by two Assistant Secretary Generals, and other staff, all approved by the Authority. The responsibilities of the Secretariat are to offer secretarial services to the Authority and Council of Ministers; service and assist the organs of the common market in performance of their functions; prepare and submit reports on the activities of the common

market to the Council of Ministers and Authority; prepare and submit the budget of the common market to the Intergovernmental Committee; administer and manage the finances of the common market; and promote the adoption of joint positions by the member states in multilateral negotiations with third countries or international organisations. The Secretariat of the Common Market is in Lusaka, Zambia.

- *The Consultative Committee of the Business Community and Other Interest Groups* – The Consultative Committee is composed of representatives and experts from the business community and other interest groups from the Member States. The primary function of the Consultative Committee is to provide a link and facilitate dialogue between the business community and other interest groups, with other organs of the Common Market.
- *Other Organs* - Other organs of the common market established under the treaty are the Court of Justice and the Committee of Governors of Central Banks. The COMESA Court of Justice, which is an independent organ of the common market, has jurisdiction to adjudicate upon all matters which may be referred to it pursuant to the COMESA Treaty. The Court is composed of seven Judges who are appointed by the Authority to the First Instance Division, and five Judges who are appointed to the Appellate Division. The Court is in Khartoum, Sudan. The Committee of Governors of Central Banks is comprised of the Governors of Central Banks of all the Member States. The Committee oversees regional finance and monetary affairs.
- *COMESA Institutions* - The COMESA Agreement recognized the institutions established under the Preferential Trade Area for Eastern and Southern African States (PTA) – its predecessor. At the entry into force of the COMESA Treaty, the PTA institutions became institutions of the common market and continued in force regulated by the respective charters establishing them. The current COMESA institutions are the following:

    1. Eastern and Southern African Trade Development Bank (Bujumbura, Burundi).
    2. COMESA Clearing House (Harare, Zimbabwe)
    3. COMESA Competition Commission (Lilongwe, Malawi)
    4. Africa Leather and Leather Products Institute (Addis Ababa, Ethiopia)
    5. PTA Reinsurance Company (Nairobi, Kenya)
    6. Metallurgical Technology Centre (Harare, Zimbabwe)
    7. COMESA Monetary Institute (Nairobi, Kenya)
    8. Council of Bureaux (Lusaka, Zambia)
    9. Association of Commercial Banks (Blantyre, Malawi)
    10. Centre of Commercial Arbitration (absorbed within the COMESA Court of Justice)
    11. Federation of National Associations of Women in Business (Lilongwe, Malawi)
    12. Federation of Chambers of Commerce and Industry and COMESA Business Council (Lusaka, Zambia)
    13. COMESA Regional Investment Agency (Cairo, Egypt).
    14. African Trade Insurance Agency (a new institution created under COMESA; located in Nairobi, Kenya)

2.4.4 Selected COMESA Programmes and Projects

COMESA has a wide range of programmes corresponding to it broad mandate. Highlights of programme activities in areas relevant to this study are summarised below.

1. *Agriculture* – COMESA has supported 15 member states in signing their National Agricultural and Food Security Investment Plan (NAIPs) compacts. The countries have finalised their NAIPs and organised high-level business meetings for mobilization of resources to support implementation of programmes contained in the plans. COMESA has also developed a Regional Agricultural Investment and Food Security Plan (RAIP) that was subsequently reviewed by NEPAD planning and coordination Agency (NPCA) and partners.

2. *Climate change* – COMESA is implementing the intra-ACP Global Alliance (GCCA+) COMESA Project. The project is funded through a EUR 7.15 million grant, and has a four-year duration (2018-2021). The objective of the project is to increase the resilience of COMESA region to climate change and achieve the SDG 13 goal to take urgent action to combat climate change and its impacts in order to reduce poverty and promote sustainable development. The biggest component of the project is being used to support Climate Smart Agriculture (CSA) projects in selected member states (Eswatini, Madagascar, Seychelles, Uganda and Zimbabwe). The main intervention under the projects is farmer training in CSA technologies. The project has also extended support to nine selected member states (Eswatini, Kenya, Madagascar, Rwanda, Seychelles, Uganda, Zambia and Zimbabwe) to help them develop "bankable projects" proposal in four priority sub-section (energy, agriculture, transport and forestry) to enable them access climate finance. The project also supports the strengthening of climate policy dialogue, and information and knowledge-sharing.

3. *Transport Corridor Facilitation* – Transport is one of the priority areas of COMESA's programming due to its potential to contribute to regional trade and economic integration. Support provided by COMESA to Member States in the advancement of regional transport corridors include strengthening the enabling environment for transport infrastructure development through development of legal and regulatory instruments; policy research and policy development; production and packing of information; harmonisation of standards; research and capacity building;, breaking trace barriers; trade facilitation; analysis of assessment studies and; development of best practice guides. Major transport projects that are on COMESA's radar include the following:

    a. **North-South Corridor Road/Rail Project** - This project is a multi-modal (road, rail and ports) trans-continental interconnector, ultimately connecting Cape Town in the south to Cairo in the north. The project is a Presidential Infrastructure Champion Initiative (PICI) under the African Union, with South Africa as champion. The project is made up of several components, all of which are in various stages of the development lifecycle. They include road, rail, bridge, border post and energy projects as well as the strengthening of the regulatory environment for trade and transport. In the short term, it is planned to upgrade 1,041 km of road, with another 5,156 km due for upgraded in the next five years. The corridor will ensure easy border crossing for both people and goods and will increase the efficiency and capacity of the transport sector. This, in turn, is expected to increase regional trade and speed up regional integration while leading to cost savings. Support provided

by COMESA to this corridor project include simplifying cross-border clearing procedures, harmonising transit and transport regulations, and simplifying administrative requirements. In terms of support to improving the state of physical infrastructure, COMESA has been involved in project preparation for transport investment activities that include detailed engineering designs and drawings, environmental and social impact studies, economic evaluation and preparation of tender documents. Ongoing infrastructure projects in this program include the 64 km Pandamalenga-Nata (Botswana) road; 111 km Palapye-Martins Drift Road (Botswana); 234 km Kamuzu International Airport Turn Off – Mzimba Turn Off (Malawi); 120 km Bulawayo-Gwanda (Zimbabwe); 200 km Gwanda-Beitbridge (Zimbabwe); and the Eswati Rail Link.

b. **Northern Corridor Standard Gauge Railway** – this project will link the port of Mombasa to Nairobi, Naivasha and Kisumu and eventually link to Uganda, Rwanda, Burundi and Nimule through a standard gauge railway. Implementation is through loans by Member States and development partners.

c. **Port Sudan Corridor** – this project links the Central African Republic, Chad, Ethiopia, South Sudan and Sudan to Port Sudan.

d. **LAPSSET Corridor** – This mega infrastructure project will establish a new transport corridor linking the Port of Lamu to central Ethiopia and South Sudan. The programme is part of the Presidential Infrastructure Champion Initiative (PICI) of the African Union, and is discussed under the Section on AUDA-NEPAD.

e. **VICMED** – COMESA is the key REC for the project to establish a navigational line between Lake Victoria and the Mediterranean Sea (VICMED). This is a PICI project that is championed by Egypt. It is also discussed further in the Section on the AUDA-NEPAD.

4. *Power Generation* - COMESA coordinates power generation projects by the Member States and different development partners, who include NELSAP. Recent significant developments in energy generation in the COMESA Region included the commissioning by Egypt of three combined-cycle (natural gas) power plants with a combined generation capacity of 14.4 GW, thereby boosting Egypt's power generation capacity by 50 percent. The power plants were constructed by Germany's Siemens in the country's new capital, Beni Suef, and Burullus at a cost of EUR 8 billion ($9.3 billion). In renewable energy, Egypt commissioned the Gabal El-Zeit wind farm which has 300 wind turbines with an overall capacity of 580 MW. Uganda also commissioned a 20 MW solar plant in its central region while Zambia launched the construction of the 57 MW solar power plant in Lusaka. Other energy generation projects being coordinated by COMESA include the Batoka Gorge Hydropower Project (2,4000 MW) being jointly developed by Zambia and Zimbabwe on the Zambezi River; and the Ruzizi III (145 MW) run-of-river hydropower project being jointly developed by Burundi, DR Congo and Rwanda on the transboundary Ruzizi River. The list of key hydropower projects on COMESA's radar is indicated in the Annex 4. In many of these projects, COMESA has a coordination role but is not directly involved in the preparation, resource mobilisation or implementation activities.

5. *North-South Power Transmission Corridor (Zambia-Tanzania-Kenya Transmission Interconnector)* – In the field of regional power transmission and interconnection, COMESA has been coordinating the implementation of segments of the North-South Power Transmission Corridor – one of the PIDA flagship projects. The North-South Power Transmission Corridor spans a distance of 8,000 km line stretching from Egypt through Sudan, South Sudan, Ethiopia, Kenya, Tanzania, Malawi, Mozambique, Zambia and Zimbabwe to South Africa to transport energy generated by the Great Millennium Renaissance Dam in Ethiopia. The corridor is designed to connect the Eastern Africa and Southern Africa Power Pools (EAPP and SAPP). The corridor project is being developed in phases: Kenya and Tanzania have undertaken the final preparation of the 400 KV Kenya (Isinya)–Tanzania (Arusha–Singida) Interconnection under the auspices of the Nile Basin Initiative /Nile Equatorial Lakes Subsidiary Action Program (NBI/NELSAP); TANESCO is implementing the 400 KV Shinyanga–Iringa; Tanzania with NELSAP are also undertaking the preparation of the 400 KV Iringa–Mbeya power transmission line in Tanzania; Zambia is implementing the 330 KV Pensulo–Kasama in Zambia. The key interconnection projects that are on the COMESA Radar are summarised in Annex 4. Most of the interconnection projects on the COMESA radar are NELSAP Projects.

2.5 Eastern Africa Power Pool

2.5.1 Historical Origins

A power pool is a framework for pooling energy resources and promoting power exchanges between utilities in each geographical area based on an integrated master plan and pre-established rules.

The **Eastern Africa Power Pool** (EAPP) was established in February 2005 with the signing of an intergovernmental memorandum of understanding (IGMOU) by seven countries, namely Burundi, D.R. Congo, Egypt, Ethiopia, Kenya, Rwanda and Sudan. Between 2010 and 2012, three other countries – Tanzania, Libya and Uganda – joined the partnership, bringing the total number of members to ten. Nine of the ten EAPP Member States are Nile Riparian Countries (only two Nile countries – Eritrea and South Sudan - are not members of EAPP). The signature of the IGMOU was followed by the signature of an Inter-Utility Memorandum of Understanding (IUMOU) by the chief executive officers/managing directors of the power utilities in the Member States.

In a further development, the EAPP was adopted by the 2006 COMESA Summit of Heads of States and Governments as a specialised institution of COMESA. The EAPP has been mandated by member states to coordinate investment in power generation and transmission for integration of the region's power system.

2.5.2 EAPP Mandate and functions

The EAPP is expected to operate under the framework of the New Partnership for the Development of Africa (NEPAD) and to complement the NBI in the development of power interconnections in the Nile region.

Mission

The mission of the EAPP is to make available for the Eastern Africa region, an affordable, sustainable and reliable electricity in order to increase the rate of access to electricity by the population of the region and thereby promote regional integration by the pooling of electricity energy resources in a coordinated and optimized manner.

Goals

The goals of the EAPP, from which the EAPP Mission is derived, are the following:

(a) To be a framework for pooling resources, promoting power exchanges between utilities in East Africa and reduce power supply costs based on an integrated master plan and pre-established rules (grid nodes);

(b) Optimise the usage of electricity resources available in the region by working out regional investment schemes in power generation, transmission and distribution.

(c) Reduce electricity costs in the region by using power systems interconnection and increasing power exchanges between countries

(d) Provide efficient coordination between various initiatives taken in the fields of power production and transmission as well as exchanges in the region.

Objectives

The objectives of the EAPP are as outlined below.

(a) To make reserve development for twining services.

(b) To secure reliable power supply for the region's countries.

(c) To optimise the usage of energy resources in the region working out regional investment schemes in power generation, transmission and distribution.

(d) To increase power supply in the region in order to increase access rate to the population to electricity.

(e) To reduce electricity production costs in the region by using power system interconnection and power exchange between countries.

(f) To provide efficient coordination between various initiatives taken in the power production, transmission and exchange fields in the region.

(g) To create, within the NEPAD framework, a conducive environment for power system investment.

(h) To facilitate, in the long term, the development of an electricity market in the region.

The EAPP's **core functions,** from distilling the above goals and objectives, are the following:

1. to optimize the development and use of the Eastern Africa region's energy resources in an economically and environmentally sustainable manner through the efficient co-ordination and development of regional master plans and grid codes;
2. to increase the electricity access rate for the region's population through an interconnected grid and regional power market that ensures provision of adequate, secure and affordable quality power and;

3. to facilitate financing of integration projects in power generation and transmission.

2.5.3 EAPP Institutional Framework

The EAPP was absorbed into COMESA as a specialised institution of the REC. Despite this decision, the EAPP remains completely autonomous, with COMESA having little involved in the implementation of the EAPP agenda. Instead, COMESA's main role vis-à-vis the EAPP is to provide a level of oversight and 'political cover' and to provide the EAPP with greater political clout. In addition to this role, COMESA has also acted as a financial intermediary between donors and the EAPP, by disbursing funding to the EAPP through the COMESA Secretariat.

The EAPP organization structure consists of the Conference of Ministers (COM) of energy/electricity of the EAPP Member States, Steering Committee, the Independent Regulatory Board, the Permanent Secretariat, the Technical Sub-committees and the Coordination Centre. The EAPP Permanent Secretariat is in Addis Ababa, Ethiopia. These organs are further described below.

1. *Conference of Ministers* – The Council is made up of ministers responsible for electricity in the EAPP Member States. The Council is the decision-making authority for policy and strategy including membership.

2. *Steering Committee* – This committee consists of the chief executives of the national power utilities of the EAPP Member States. The Committee recommends policies and strategic issues for approval by the Council of Ministers and oversees the execution of approved EAPP policies and strategies.

3. *Technical Sub-Committees* - The Technical Sub-Committees, which report to the Steering Sub-Committee, comprise of senior officials with relevant knowledge and expertise drawn from the EAPP Member Utilities. Three Technical Sub-Committees are provided for under the IGMOU and IUMOU. These are the **Planning Sub-Committee**, responsible for coordination of master plans and development of programs of the member utilities; the **Operations Sub-Committee**, responsible for drafting the operation and maintenance rules of power plants and networks involved in the EAPP; and the **Environment Sub-Committee** responsible for environmental impact assessment, and the mitigation measures on components of the EAPP. A fourth Sub-Committee – on Governance and Human Resources – has also been proposed. The Technical Sub-Committees are supposed to be operational arms of the EAPP, and responsible for the implementation of its technical activities. However, due to the lack of funds, absence of adequate interconnection, and the early stage of the power market in the Eastern Africa region, the EAPP has been unable to set up and fully operationalize the Technical Sub-Committees.

4. *The Independent Regulatory Board* - The EAPP independent Regulatory Board (IRB) was established through a decision of the 5th Conference of Ministers (COM) held in May 2012 in Addis Ababa. The Independent Regulatory Board is located at the EAPP Permanent Secretariat in Addis Ababa and consists of nominees of the national electricity regulatory agencies of the EAPP Member Countries. The IRB oversees the harmonisation and implementation of cross-border trade regulations. Its mandate includes the resolution of disputes among member utilities on power trade. The specific functions of the IRB are the following: (1) issuing operating licenses to qualified market participants in accordance with the approved market rules and regional grid code; (2) regulating relevant activities of

the signatories of the of the Inter-Utility Memorandum of Understanding; (3) approving modifications to the EAPP regional market rules, interconnection code, standards and procedures and specifications; (4) settling cross-border electricity or trading disputes that may arise between the members in the EAPP regional power pool market; and (5) imposing penalties and sanctions on non-compliance with market rules, grid codes and other rules and regulations. The initial proposal was to have the IRB report to the Steering Committee but the current plan is to transform it into an independent regulatory forum reporting directly to the Conference of Ministers.

5. *Permanent Secretariat* – The EAPP Secretariat is based in Addis Ababa, Ethiopia, and is responsible for handling the day-to-day activities of the Power Pool. It is led by an Executive Secretary appointed by the Conference of Ministers on the Steering Committee's recommendation. The host country agreement with Ethiopia gives EAPP the privileges and immunities of an international organisation.

6. *Regional Coordination Centre* – It is proposed to establish a Regional Coordination Centre (RCC) within the EAPP institutional framework to be the regional power market operator. The EAPP Master Plan Report (2014 update) shows the Regional Coordination Centre as a separate entity from the Permanent Secretariat. However, the RCC is now expected to be established as an integral part of the EAPP Permanent Secretariat as has been done for the Southern Africa Power Pool (SAPP).

2.5.3 EAPP Programmes and Projects

The EAPP has devoted its resources primarily to preparing regulatory frameworks and building technical capacity for regional electric power trading. EAPP's main programmes and projects are the following:

1. *Regional Master Plan and Grid Code Study* - This study was financed through a US$ 1.7 million grant from AfDB/NEPAD-IPPF. The objectives of the study, which was concluded in 2011, were threefold: (a) to identify power generation and interconnection projects, at Masterplan level, to interconnect the power systems of EAPP countries in the short-to-long term; (b) prepare a masterplan; and (c) to develop common grid code in order to facilitate the integrated development and operations of the power systems of the EAPP member countries. The study established that some countries in the region had significant surplus. The study identified several transmission and generation projects as key to integration of the power sectors in the EAPP Master Plan. Some of the major transmission and generation projects have been approved at the African Union Commission as vital for inter-regional integration. The Master Plan was used by the PIDA programme as an input to the electrical power sub-sector component of the program.

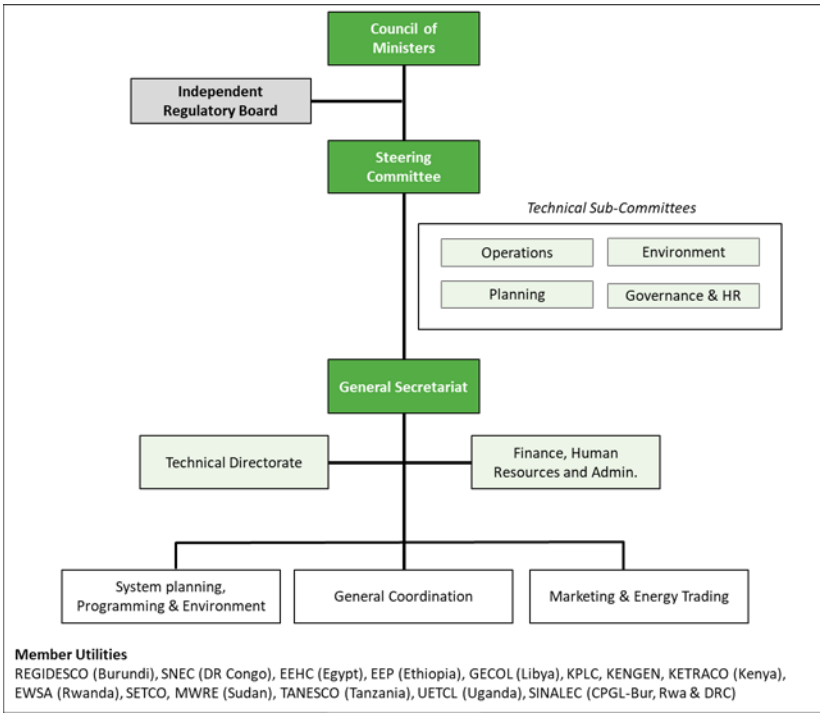

Figure 5: *The Institutional Structure of the EAPP*

The Master Plan documented the existing interconnection lines in 2013, and proposed set-up for interconnections in 2018, 2023 and 2028. It also made projections of renewable energy portion in the total energy mix. The Master Plan was revised in 2014 to incorporate new developments in power generations and interconnection, and taken into consideration more renewable energy candidates in the region. The Master Plan identified the least-cost generation and transmission projects to ensure electricity supply to the region under common long-term sufficiency and reliability requirements. The Master Plan estimates a requirement of US$ 3.7 billion in investments in cross border transmission over a 30-year period to transform the EAPP into a fully functional pool.

2. *Regional East Africa Power Pool Programme* - This programme was developed to implement three priority interconnections identified under the regional power system master plan namely (a) Ethiopia grids; (b) Kenya-Tanzania interconnection, and (c) Uganda-Rwanda interconnection.

3. *Interconnection Code Compliance Programme* – With funding from USAID and the Power Africa Program, EAPP and the Independent Regulatory Board implemented a code compliance programme over the period 2011-2016. The EAPP interconnection code was developed earlier in 2012 and sets out the technical rules to ensure that the transmission grid is operated in a safe, reliable, secure and efficient manner. The code was augmented by a set of standards and measures to be met by member countries and utilities with respect to the grid. The purpose of the Code-Compliance Programme was to enhance understanding of the interconnection code, and its requirements, and assist member states/utilities in compliance with the code.

4. *Technical Assistance and Capacity Building Project* – Among other things, this project carried out an assessment of the existing and future regional power market, and developed

a database for strategic planning, and prepared long-term strategy for increasing cross-border trading.

5. *Other EAPP Programmes* – Other programmes are the following: (a) Support for enhanced implementation and operation of coordination centre, and independent regulatory board (funded by RNE/SIDE); (b) Renewable Energy Assessment and Feasibility Study of Selected Projects – supported by USAID and; (c) USAID-Power Africa support for EAPP. Under the last programme, the USAID is helping EAPP to develop sample agreements for electricity trade, and the Government of Norway is funding the development of a coordination centre and regional regulating body.

The Regional Masterplan identified priority investment projects for power generation in the COMESA regional and regional power interconnection and trade projects. These projects are listed in Annex 5.

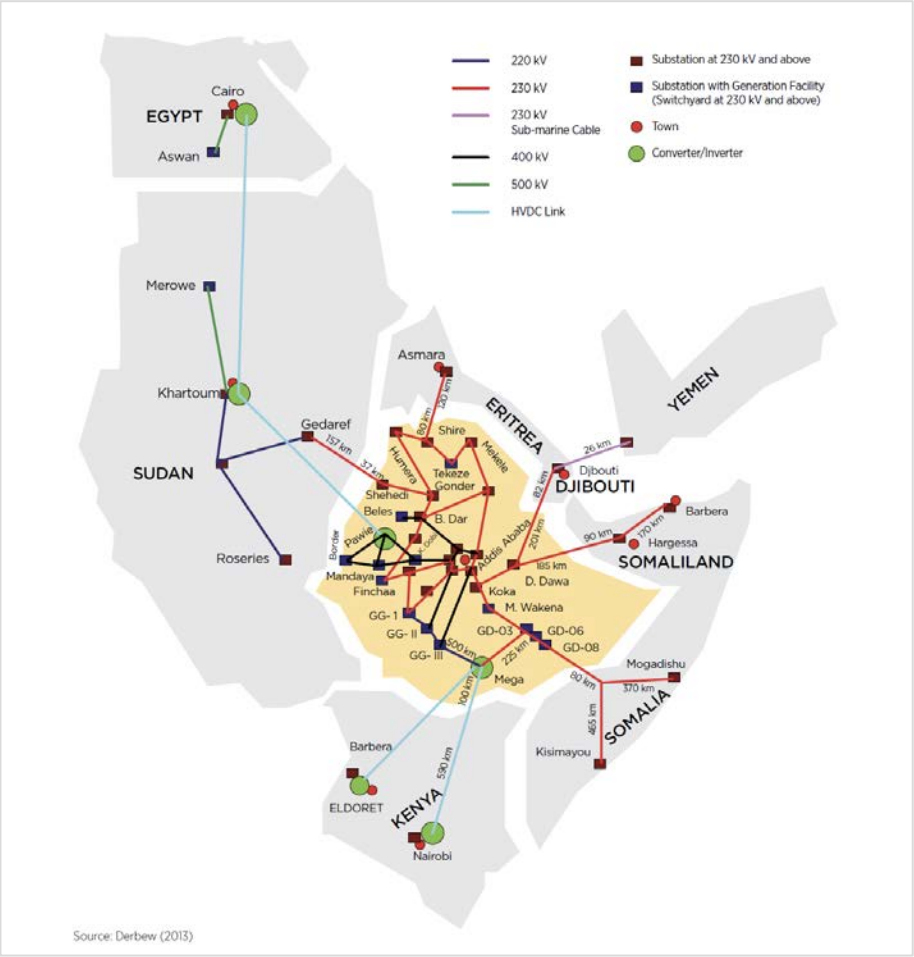

Figure 6: *Possible Ethiopia Interconnections the are part of the EAPP Master Plan*

2.6 Coordination of REC Activities

2.6.1 African Union Protocol and AU-REC relations

The way individual RECs relate to one another and with the African Union (AU) is regulated by the AU *Protocol on Relations Between the African Union and Regional Economic Communities*. The protocol was adopted in 2007 during an AU Summit in Accra, Ghana to tackle the difficult problem of existence of multiple RECs with overlapping membership and lack of clear principles of coordination among them. The protocol is a tool promoting the harmonisation of policies between the AU and RECs; the harmonization of policies, measures, programmes and activities between RECs; and ensuring compliance in the activities of the RECs with the 1980 Lagos Plan of Action for the Development of Africa, and the 1991 Abuja Treaty establishing the African Economic Community. Among other things, the protocol provides for RECs to sign agreements of cooperation amongst themselves. Such agreements are coordinated by two organs created under the protocol – the Committee on Coordination and Committee of Secretariat Officials.

2.6.2 The COMESA-EAC-SADC Tripartite Agreement

The COMESA-EAC-SADC tripartite agreement is an example of an inter-REC agreement seeking to improve coordination and harmonisation between RECs. The agreement, which established a Tripartite Free Trade Area in the countries of COMESA, EAC and SADC, was adopted by the Member States of the three RECs in June 2015. The agreement aims to enhance the regional and continental integration processes and contribute to addressing the challenge of overlapping membership of the member states of the three RECs. The treaty also seeks to progressively eliminate tariff and non-tariff barriers to trade in goods, liberalise trade in services and enhance cooperation amongst member states of the tripartite area on customs matters and trade facilitation measures.

The vision behind the creation of the COMESA-EAC-SADC Tripartite is "*to improve the quality of life of the peoples of the COMESA, EAC and SADC regions through deepening and strengthening integration*". The achievement of this vision is expected to proceed in two phases. The first phase, which is the current phase, is expected to focus on adoption of the Tripartite Free Trade Agreement; improving trade and transport facilitation; carrying out trade infrastructure development; and undertaking resource mobilisation. The second phase is expected to consolidate the first phase achievements and introduce additional interventions in the areas of food security and climate change.

2.6.3 The Tripartite Agreement on a Climate Program in Eastern and Southern Africa

Another example of an inter-REC agreement for cooperation is provided by the *Tripartite Agreement for the Implementation of the Programme on Climate Change Adaptation and Mitigation in Eastern and Southern Africa*. This agreement, which is set within the framework of the COMESA-EAC-SADC Tripartite, was signed by the three RECs (COMESA, EAC and SADC) in July 2012 on the side-lines of the 19th African Union Summit of Heads of State and Government in Addis Ababa, Ethiopia. Under the agreement, the three RECs have agreed to address the challenge of climate change in Eastern and Southern Africa together and, to this effect, developed a joint five-year programme on climate change adaptation and mitigation. The tripartite agreement on implementation of the programme outlines relationships and responsibilities between the RECs and provides mechanisms for coordination during the implementation of the joint program.

Similar inter-REC agreements could be reached to streamline relationships between the RECs in areas such as transboundary water management.

3. Review of Investment Promotion Activities at African Union Level

3.1 New Partnership for Africa's Development (NEPAD)

The **New Partnership for Africa's Development (NEPAD)** is a socio-economic development flagship programme of the African Union (AU), adopted by the 37th Summit of Heads of State and Governments of the Organization of African Unity (OAU) that was held in Lusaka, Zambia, in July 2001. NEPAD is the principal tool for promoting regional infrastructure development projects at the African Union level.

NEPAD is essentially an overarching vision and policy framework for accelerating economic co-operation and integration among African countries. Through the Programme, the African Union facilitates and coordinates the development of continent-wide programmes and projects, mobilizes resources, and engages the global community, Regional Economic Communities (RECs) and African Union (AU) Member States in the implementation of the programmes and projects.

NEPAD's overall mission is to address the critical challenges of poverty, development and Africa's marginalization internationally. Its four primary objectives are to: (a) eradicate poverty; (b) promote sustainable growth and development; (c) foster integration of Africa in the world economy, and (d) accelerate the empowerment of African women.

3.2 Programme for Infrastructure Development in Africa (PIDA)

3.2.1 About the Programme for Infrastructure Development in Africa

The **Programme for Infrastructure Development in Africa (PIDA)** is one of the flagship programmes of NEPAD. PIDA is a continent-wide program seeking to develop a vision, policies, strategies and a programme for the development of priority regional and continental infrastructure in transport, energy, information and communication technologies (ICT) and transboundary water management.

PIDA was designed in 2010 as a successor to NEPAD's Medium to Long Term Strategic Framework (MLTSF) that itself was a replacement of NEPAD's Short-Term Action Plan for Transboundary Water Resources Management in Africa (STAP-TWR). The PIDA Programme is a response by Africa's political leaders to the huge infrastructure deficit in Africa, and recognition of the pivotal role played by regional infrastructure in improving intra-African trade and the continent's competitiveness in the world market. PIDA is based on a common vision of regional integration and a long-term agenda that will support the objectives of the Africa Union's (AU) Abuja Treaty.

PIDA aims to promote socio-economic development and poverty reduction in Africa through improved access to integrated regional and continental infrastructure networks and services. More specifically PIDA seeks to:

(a) establish a strategic framework for the development of regional and continental infrastructure in four priority sectors (energy, transport, information and communication technologies (ICT), and transboundary water resources), based on a development vision for Africa, strategic objectives and sector policies;

(b) establish an infrastructure development programme over a time horizon up to 2040 using the strategic framework/sector policies; and

(c) prepare an implementation strategy and processes, including in particular a priority action plan (PAP).

Through the above interventions, PIDA supports Member States to: (a) reduce energy costs and increase access; (b) slash transport costs and boost intra-African trade; (c) ensure water and food security and; (d) increase global connectivity. PIDA's vision for energy and transboundary water management (these two selected due to relevance to NBI) are summarized in the textbox below.

Box 1. PIDA's Vision for the Energy and Transboundary Water Sectors

PIDA's Energy vision: PIDA will develop efficient, reliable, cost-effective and environmentally friendly infrastructure for the physical integration of the continent and enhance access to modern energy services for most of the African population by:

- Developing regional and continental clean power generation and transmission projects
- Implementing high-capacity oil refineries and oil and gas pipeline projects
- Developing renewable energy resources.

PIDA's Water vision: Promoting integrated water resource management to develop transboundary water infrastructure projects, strengthen transboundary management frameworks for regional integration and ensure water security for the socioeconomic development of Africa by:

- Strengthening institutions for efficient cooperation on shared water resources
- Developing transboundary water infrastructure to meet increasing water demands while protecting people and the environment
- Strengthening finances for transboundary water development and management; and
- Improving knowledge on transboundary water basins and shared aquifers.

A key principle of the PIDA approach in the water sector is that water infrastructure investments can only be effective in addressing development challenges if accompanied by the strengthening of management frameworks for transboundary water management and increased regional and basin-wide cooperation.

The PIDA Programme is made up of four components namely (a) sector consultancy studies, through which background analyses are preformed, stakeholders are consulted, infrastructure development plan prepared and implementation strategy formulated; (b) establishment and operation of a five-member high level panel of experts to support the work of consultants in infrastructure programme preparation; (c) establishment and operation and maintenance of a database to inform programme development and provide a baseline for programme monitoring and evaluation; and (d) external audits implemented on an annual basis.

3.2.2 PIDA Priority Action Plans

Since its creation in 2010, two Priority Action Plans (PAPs) have been prepared under PIDA that present priority infrastructure projects among the many project identified through the programme. The two action plans are briefly described below.

- *PIDA-PAP 1* – This programme, the first PIDA Priority Action Plan, covered the period from 2012 to 2020 and comprised of 51 programmes and 433 individual projects. The distribution of programmes under the four priority sectors of PIDA is as follows: transport - 24 programmes); energy - 15 programmes; information and communication technology– 3 programmes and; transboundary water management - 9 programmes. A few selected PIDA-PAP 1 projects that fall in the EAC, IGAD and COMESA regions, or are relevant to transboundary water management and the Nile Basin in general, are shown in Annex 6.
- *PIDA-PAP 2* – The second PIDA Priority Action Plan (PIDA-PAP 2) covers the period 2021-2030 and contributes to delivery of the African Union Vision and Agenda 2063. In preparation of PIDA-PAP 2, an integrated corridor approach was adopted. Under this new approach, regional integration will be promoted through spatially coordinated development of infrastructural elements like roads, rails, ports and harbors, pipelines, inland waterways, border post facilities and other support services, to form corridors. In addition, cross-cutting elements will be integrated in the development of the traditional corridor infrastructure and services. The cross-cutting elements include mainstreaming gender and social equity, building climate resilience, increasing employment opportunities and improving connectivity between rural areas and major urban centres and industrial hubs. The portfolio of projects in PIDA-PAP 2 was selected from projects proposed by Regional Economic Communities (RECs) and Member States (MS) following a project identification and prioritization process endorsed by PIDA's Specialized Technical Committee. The PIDA PAP 2 portfolio comprises of 409 projects fallowing under the four priority sectors, namely energy (54 projects), ICT (114 projects); transport (232 projects) and transboundary water management (9 projects). A few selected PIDA-PAP 2 projects that fall in the EAC, IGAD or COMESA regions, or are relevant to transboundary water management and the Nile Basin in general, are shown in the Annex 7 and Figure 7.

3.2.3 PIDA Investment Requirement

The capital cost of long-term implementation of PIDA through 2040 is estimated to be in excess of $360 billion, with energy and transport projects and programmes expected to take up nearly 95% of the total cost. Within the overall programme budget, the estimated capital cost of delivering the PAP from 2012 through 2020 is expected to be nearly US$68 billion, or about $7.5 billion annually. The estimated cost for implementation of the programme to 2020 includes the cost of an independent advisory panel of experts (supported by DFID), regional and sector consultative workshops (supported by NTCF and EU) and implementation of an infrastructure database (supported by the EU). The sector studies component alone requires a total amount of USD 7.5 million in grants. Of this amount, the African Development Bank (AfDB) is providing USD 1.933 million (25.6%); the African Water Facility (AWF) is providing USD 1.862 million (24.6%), the Islamic Development Bank (IsDB) is providing USD 1.756 million (23.3%), while the NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF) is providing USD 2.0 million in grants (26.5%).

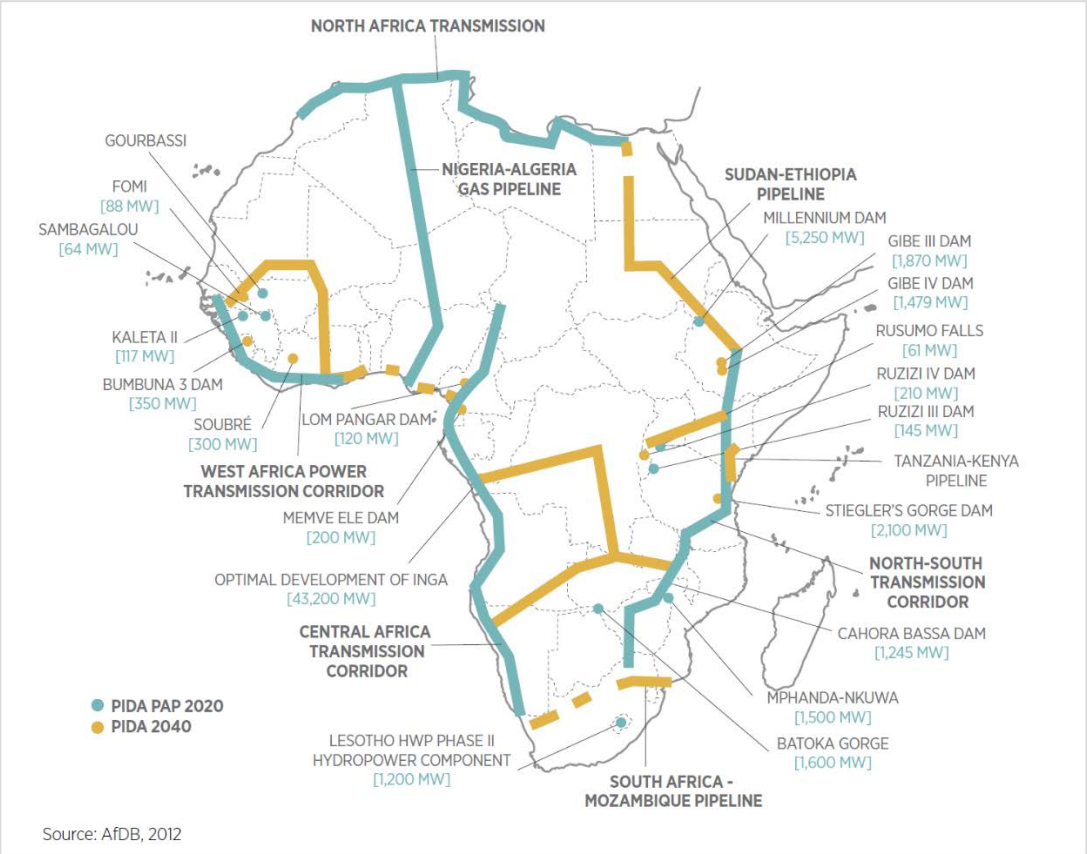

Figure 7: *The Priority PIDA Power Transmission Projects*

3.2.4 The New Partnership for Africa's Development - Infrastructure Project Preparation Facility

The **New Partnership for Africa's Development - Infrastructure Project Preparation Facility (NEPAD-IPPF)** is one of the tools for speeding up the preparation and eventual implementation of PIDA projects. The NEPAD-IPPF is a specialized multi-donor fund set up in 2005 under the African Development Bank (AfDB) to address the lack of investment-ready infrastructure projects – one of the key constraints to economic development in Africa. NEPAD-IPPF provides grants to African governments, Regional Economic Communities (RECs), Power Pools, Transboundary River Basin Organisations, transport corridor authorities and intra-Africa related institutions for use in the preparation of high quality/viable regional and continental infrastructure projects. NEPAD-IPPF grants are also used to develop consensus and partnership for project implementation, and promote infrastructure projects and programs aimed at enhancing regional integration and trade.

Eligible projects for NEPAD-IPPF support fall under the transport, energy, water and ICT sectors (i.e. PIDA priority sectors). Contributors to the fund include the AfDB, Canada, Denmark, Germany, Norway, Spain, United Kingdom and USAID.

Since 2005, NEPAD-IPPF has approved 76 grants worth US$ 102 million for regional infrastructure projects, leading to investment financing of over US$ 8.7 billion, thereby contributing significantly

to Africa's integration and development agenda (AfDB, 2020[2]). Some of the projects prepared with NEPAD-IPPF supported include the Burundi-Rwanda Power Grid Interconnection Project (NELSAP); Angololo Water Resources Development Project (Kenya); Public-Private Partnership (PPP) Advisory Services for the Songwe River Basin Development Programme (Malawi and Tanzania); Ruzizi IV Hydropower Project (DR Congo and Rwanda); Lamu Port Development: Transaction Advisory Services and Technical Services (Kenya); Lake Tanganyika Transport Corridor; Kampala-Juba-Addis-Djibouti Road Corridor; Kenya-Uganda Oil Pipeline Project; Zambia-Tanzania-Kenya Power Interconnection Project, and the East African Submarine Cable (EASSy) Project.

3.2.5 PIDA Implementation Arrangements

The PIDA initiative, which runs to 2040, falls within the Department for Infrastructure and Energy (DIA) of the African Union Commission (AUC), and is led by three executing agencies, namely the African Union Commission (AUC), AUDA-NEPAD and the African Development Bank (AfDB).

The **African Union Commission**, through DIA and UNECA, is responsible for political steering and coordination of PIDA. The AUS ensures the alignment of the PIDA priority projects and programmes with regional and continental strategies and policy frameworks; reviews strategic plans, studies and reports prepared by the NEPAD Agency; and makes appropriate recommendations to the AU Council for Infrastructure Development (CID) through an independent advisory group.

The **AUDA-NEPAD Agency** collaborates with Regional Economic Communities, countries, specialized institutions (like power pools and transport corridor authorities) and the private sector, to accelerate the implementation of PIDA as well as coordinate stakeholder engagements for the funding and financing of PIDA priority projects, producing annual reports on the implementation status of these projects. The AUDA-NEPAD Agency is also responsible for updating PIDA in close cooperation with the RECs and their specialized institutions. The role of AUDA-NEPAD in investment programme facilitation is further elaborated in the subsection below.

The **African Development Bank (AfDB)** - The Bank's role as one of the executing agencies of PIDA encompasses the responsibility for contractual, financial, technical and administrative management of the programme, including responsibility for procurements, budget management and disbursements procedures in conformity with its existing rules, regulations and procedures. The AfDB also provides part of the grants for preparation studies, and loans to Regional Member Countries for implementation of the infrastructure projects.

The PIDA Programme is being managed through a robust governance structure that comprises of the following organs.

- *AUDA-NEPAD Heads of State and Government Orientation Committee (HSGOC)* - This committee comprises of Heads of States of 20 African countries, who include the Heads of State of the five founding countries of AUDA-NEPAD (South Africa, Nigeria, Algeria, Egypt and Senegal) and 15 other Heads of State elected on a rotational basis every 2 years from the five regions of the AU. The HSGOC is responsible for setting policies, priorities and programs of action of AUDA-NEPAD. The Chairperson of the AU Commission (who is the CEO of the AUC Secretariat in Addis Ababa) participates in the HSGOC summits.

[2] AfDB, 2020. NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF). Online article accessed on September 12, 2020 at https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/nepad-infrastructure-project-preparation-facility-nepad-ippf/

- *AU-NEPAD Steering Committee* - This committee is comprised of representatives of the African Heads of State and Government, as well as representatives from the eight AU-recognised Regional Economic Communities (RECs), the African Development Bank (AfDB), United Nations Development Programme (UNDP), Office of Special Adviser on Africa (UNOSAA) and Economic Commission for Africa (UNECA). The committee provides policy guidance and strategic advice to AUDA-NEPAD.

Other key stakeholders of PIDA are the following:

- **Regional Economic Communities (RECs)** – there are eight RECs officially recognized by the African Union. As building blocks of the African Regional Economic Community, RECs have a crucial role in the planning, execution and monitoring of PIDA projects in their respective sub-regions. Their specific responsibilities include supporting the identification and prioritization of regional infrastructure projects; facilitating cross-sectoral coordination in project identification and preparation; procurement and management of consultancy services to undertake studies and other services; detailed project preparation in close collaboration with the riparian countries; supporting resource mobilization; monitoring PIDA projects and reporting to member states, development partners and AUDA-NEPAD.
- **Power pools** – there are three namely Eastern Africa Power Pool (EAPP), Southern Africa Power Pool (SAPP) and West Africa Power Pool (WAPP).
- **Transport corridor authorities** – they include Central Corridor Transit and Transport Facilitation Agency (CCTTFA); Northern Corridor Transit and Transport Coordination Authority (NCTTCA) and; the Walvis Bay Corridor Group (WBCG)
- **Transboundary lake and river basin organizations (RBOs)** – who include ENTRO and NELSAP-CU; Lake Victoria Basin Commission (LVBC); Lake Tanganyika Authority (LTA); International Commission of the Congo-Oubangui-Sangha Basin (CICOS); Niger Basin Authority (NBA), Volta Basin Authority (VBA); Zambezi River Basin Commission (ZAMCOM) and; Orange-Senque River Basin Commission (ORASECOM); among others.
- Other **organizations** – include specialized regional agencies in Africa such as the Infrastructure Consortium for Africa (ICA); sector ministers of the AU Member States and; Development Partners.

3.3 Presidential Infrastructure Champion Initiative

3.3.1 The PICI Concept

The **Presidential Infrastructure Champion Initiative (PICI)** is a drive by Africa's top political leaders to fast-track infrastructure development on the African continent. The PICI was born out of a proposal by former President Jacob Zuma of South Africa for African presidents to identify, take interest in, and champion infrastructure projects of high regional significance and development impact. President Zuma's proposal was formally endorsed by the AU Assembly in January 2011, and later transformed by the African Union Commission (AUC) into the PICI.

The involvement of African leaders in infrastructure development through the PICI initiative is intended to speed up the implementation of flagship regional infrastructure projects, and through

this, contribute to the deepening of regional integration and raising the volume of intra-Africa trade. The role of champions in PICI is to enhance visibility, unblock bottlenecks, co-ordinate resource mobilisation efforts, and and closely follow implementation to ensure timely completion.

The PICI project portfolio at present comprises of nine projects covering three of the four priority areas of PIDA (transport, energy and ICT). Projects eligible for the PICI portfolio must be regional or continental in nature although they can also be national but with significant regional implications. The nine PICI projects are shown in Annex 8and include VICMED and LAPSSET, which are further described below. The role of the champions is to bring visibility to the selected projects, unblock bottlenecks and coordinate resources mobilization.

The AUDA-NEPAD, which manages the PIDA program, serves as a secretariat and executing agency for PICI. AUDA-NEPAD continuously monitors the progress of the PICI projects in close collaboration with key stakeholders of the initiative, who include the Heads of States and Government Orientation Committee (HSGOC), country focal points, the African Union commission (AUC), Regional Economic Communities (RECs), the African Development Bank, and the United Nations Economic Commission for Africa (UNECA). The institutional framework for PICI is shown in the figure below.

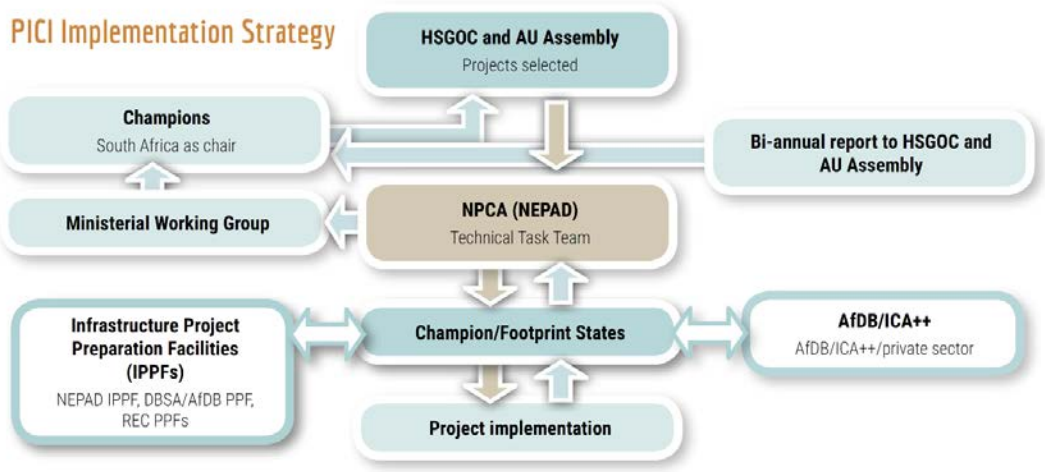

Figure 8: *The institutional framework for coordination of the Presidential Infrastructure Champion Initiative (PICI) (Source: AUDA-NEPAD, 2016[3]).*

3.3.2 Establishment of a Navigation Line Between Lake Victoria and the Mediterranean Sea

The **Establishment of a Navigational Line Between Lake Victoria and the Mediterranean Sea (VICMED)** is a Presidential Infrastructure Champion Initiative (PICI) that is championed by the president of Egypt. The other participating countries in the project are Burundi, DR Congo, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda (South Sudan and Tanzania are non-COMESA Countries that are part of the VICMED Project).

The objectives of the VICMED project are to achieve socio-economic integration and cohesion, sustainable and integrated multimodal transport system, enhanced trade and tourism, and reduced poverty among Nile Basin footprint countries. Expected benefits from the project include deepening regional integration, employment creation. Knowledge transfer, poverty reduction

[3] AUDA-NEPAD, 2016 Presidential Infrastructure Champion Initiative (PICI) Report, 32 pp.

through improved household incomes, relatively cheaper and environmentally friendly transport mode, shorter and direct transport route between Western Europe and Eastern and Central Africa.

The project has five phases as outlined in the figure below.

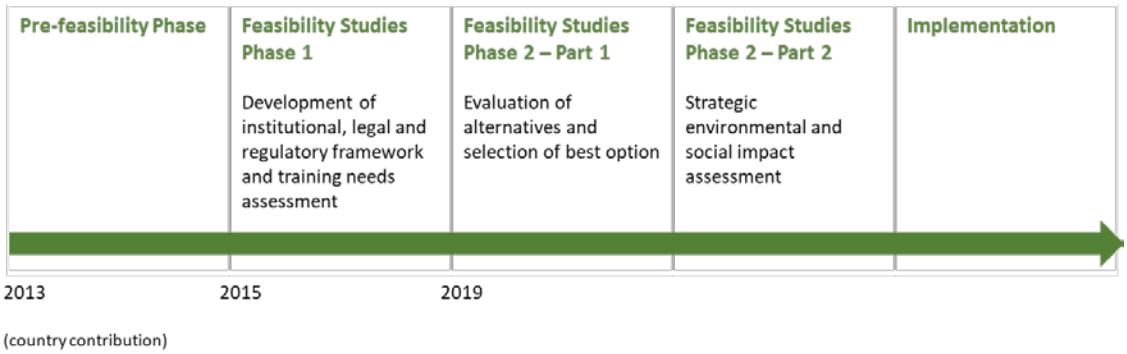

Figure 9: *The implementation schedule of the VICMED Project*

The prefeasibility study, which involved consultation with the footprint countries was completed in 2015 and approved in 2017 during the 3rd Steering Committee for VICMED. It was funded from country contributions. The institutional arrangement for implementation of the VICMED studies are shown in the figure below. The key organs are the Project Management Unit (within COMESA), Regional Focal Point Office in Egypt, and a Steering Committee comprised of representatives from the participating countries.

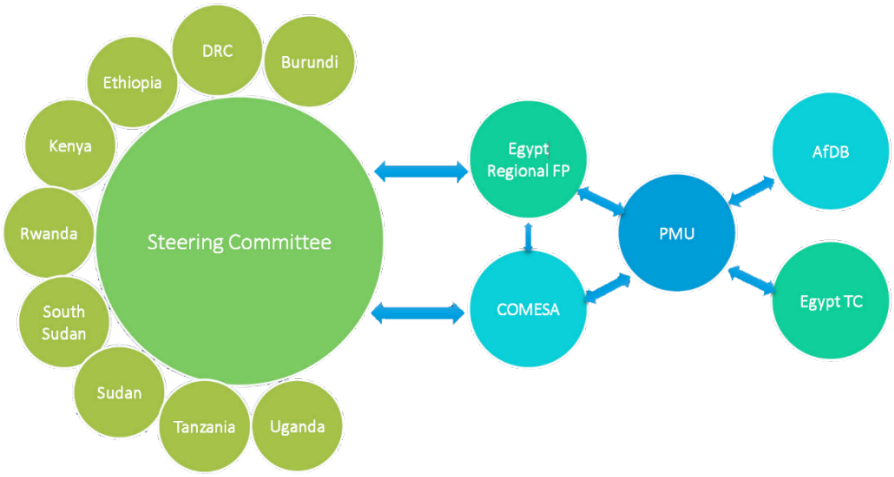

Figure 10: *The Institutional framework for technical coordination of VICMED Studies*

The feasibility study Phase 1 was completed in July 2019 and was funded through a US$ 650,000 grant from AfDB. It involved the development of institutional and legal framework for VICMED, and conducting Training Needs Assessment. It also involved the preparation of terms of terms of reference for Feasibility Study Phase 2, carrying out training for countries (on inland water transport carried out in February 2017 and June 2019 in Cairo and Ismailia, Egypt) and holding regional consultation meetings. The dedicated institutional framework of VICMED, which is embedded within AU structures – is shown below.

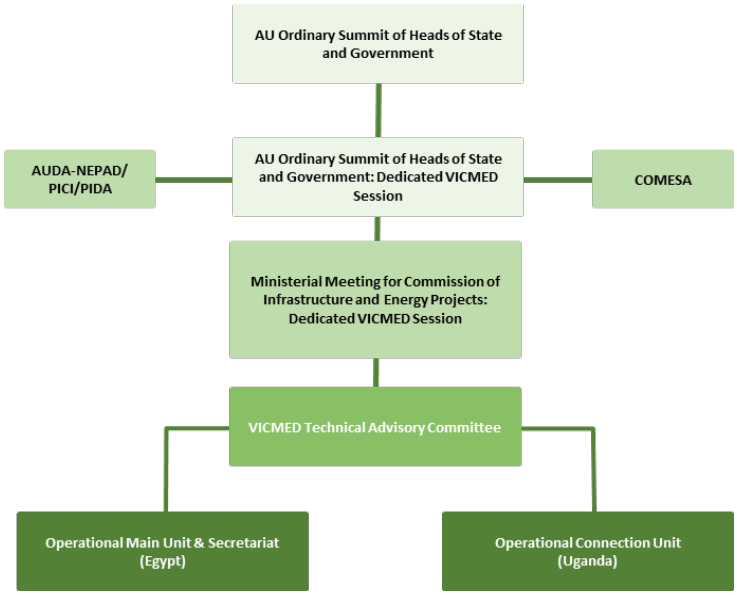

Figure 11: *The dedicated institutional governance framework of VICMED that is embedded within AU structures.*

The next phase – Feasibility Studies Phase 2 – Part 1 – is estimated to cost US$ 11.7 million and to take 38 months. This phase will be used to carry out detailed evaluation of five alternatives of the project. The assessment will involve strategic environmental assessment (SEA), transport economics study, technical feasibility study, multi-criteria and cost-benefit analysis of the alternatives.

The subsequent steps – feasibility study Phase 2 – Part 2 is estimated to cost US$ 6.5 million and to last 20 months. It will comprise the detailed strategic environmental and social assessment for the scenario selected under Phase 2 Part 1. Detailed design and implementation is estimated to require US 10-12 million but has not yet been secured. Mobilization of resources for Phase 2 feasibility studies is ongoing.

The proposed institutional framework for coordination of studies is being set up and operated under the umbrella of the Programme for Infrastructure Development (PIDA)

3.3.3 The LAPSSET Corridor

The Lamu Port, South Sudan, Ethiopia Transport Corridor (LAPSSET) Programme is Eastern Africa's largest and most ambitious infrastructure project bringing together Kenya, Ethiopia and South Sudan. The project was approved in 2012 as a Presidential Infrastructure Champion Initiative (PICI) under the African Union, with Kenya as champion.

The LAPSSET Corridor is strategically positioned to connect not only Ethiopia and South Sudan, but also the Central African Republic (Bangui) and Cameroon to East Africa thereby forming an equatorial land bridge of both road and rail across the African continent, connecting the Indian Ocean at Lamu Port, to the Atlantic Ocean through the port of Doula. The corridor is expected to open up new markets and growing intra-African trade that is currently at a low level.

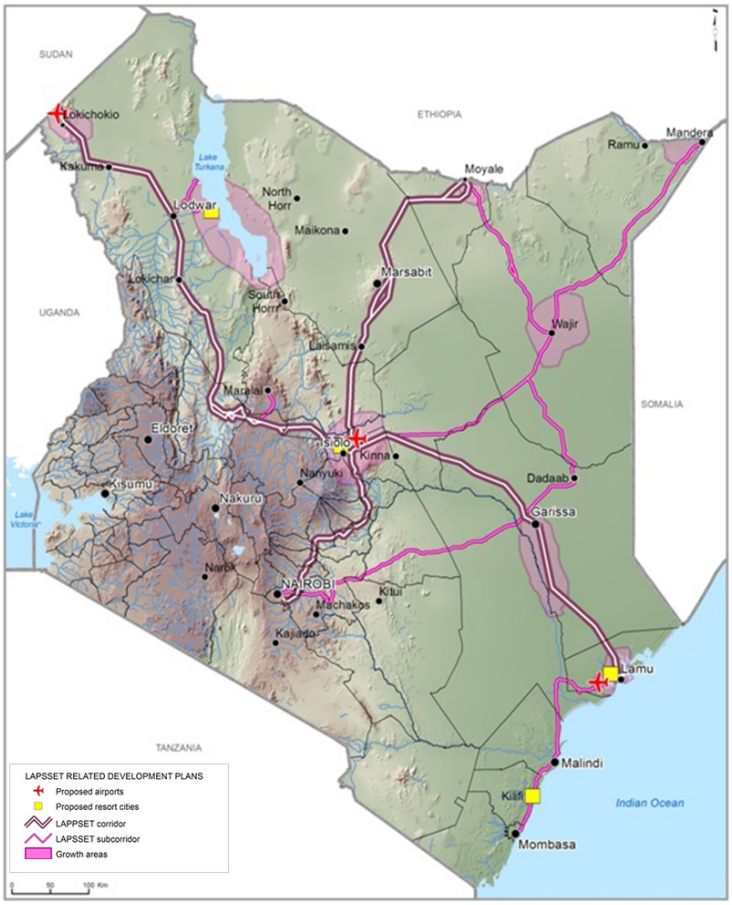

Figure 12: *The LAPSSET Transport Corridor in Kenya (source: Mipakani Project, 2020)*

The mega LAPSSET Programme consists of seven key infrastructure projects as follows:

1. A new 32 Berth port at Lamu (Kenya);
2. interregional highways from Lamu to Isiolo, Isiolo to Juba (South Sudan), Isiolo to Addis Ababa (Ethiopia), and Lamu to Garsen (Kenya);
3. crude oil pipeline from Lamu to Isiolo, Isiolo to Juba; and product oil pipeline from Lamu to Isiolo, Isiolo to Addis Ababa;
4. inter-regional standard gauge railway lines from Lamu to Isiolo, Isiolo to Juba, Isiolo to Addis Ababa, and Nairobi to Isiolo;
5. three international airports: one each at Lamu, Isiolo, and Lake Turkana;
6. three Resort Cities: one each at Lamu, Isiolo and Lake Turkana; and
7. the multipurpose High Grand Falls Dam at the Kibuka Falls along the Tana River. The power station will have an installed capacity of 693 MW and will be Kenya's largest hydropower station.

Preliminary engineering and feasibility studies have been carried out on the standard gauge railway component.

Along the main projects of the LAPSSET Transport Corridor Programme, the Government of Kenya is undertaking a number of other infrastructure projects deemed critical for ensuring the viability

of the LAPSSET Corridor and providing investors with the confidence they need to develop the project components. This includes construction of three power transmission lines supply electric power to Lamu Port and constructing a 1000 MW coal power plant in Lamu.

3.4 The African Union Development Agency (AUDA-NEPAD)

The preparation and implementation of NEPAD programmes was coordinated by the NEPAD Secretariat from 2001 till 2010 when NEPAD was transformed, and its organs integrated into the structures of the African Union Commission. Coordination of NEPAD activities was then taken over by the newly created NEPAD Planning and Coordinating Agency (NEPAD Agency), which in 2018 was itself transformed into the African Union Development Agency-NEPAD (AUDA-NEPAD) as part of global reforms geared at improving the African Union's impact and operational efficiency.

The mandate of AUDA-NEPAD is to: (a) coordinate and execute priority regional and continental projects to promote regional integration towards the accelerated realisation of Agenda 2063; and (b) strengthen capacity of African Union Member States and regional bodies, advance knowledge-based advisory support, undertake the full range of resource mobilisation and serve as the continent's technical interface with all Africa's development stakeholders and development partners. A core function of AUDA-NEPAD is to provide technical and implementation support to RECs and Member States in the development and execution of priority projects and programmes.

The AUDA-NEPAD Agency implements its mandate through six broad thematic areas, namely: (a) agriculture and food security; (b) climate change and natural resource management; (c) regional integration and infrastructure; (d) human development; (e) economic and corporate governance; and (f) cross-cutting issues (gender, ICT, capacity development and communications). Over the years each of these thematic areas has been developed into full-fledged flagship programmes, which include the Comprehensive Africa Agriculture Development Programme (CAADP), the Programme for Infrastructure Development in Africa (PIDA), the African Science Technology and Innovation Programme, and the NEPAD e-Schools Initiative.

The AUDA-NEPAD offices are in Midrand, South Africa.

3.5 The Africa Water Vision

The NBI is a transboundary river basin organisation. At continental level, the key policy document for transboundary water development in Africa, and the framework towards which the proposed Nile Basin Investment Programme could contribute in the Africa Water Vision (AWV) 2025. The Vision, which was endorsed by the African Union in 2004, serves as the basis for water development and management by the African Ministers' Council on Water (AMCOW), RECs, the African Development Bank (AfDB) and UN agencies. The Vision is supported by and builds upon a series of high-level policy statements such as: (a) the Abuja Ministerial Declaration on Water—A Key to Sustainable Development in Africa (2002); (b) the Sirte Declaration on the challenges of implementing integrated and sustainable development on agriculture and water in Africa (2004); and (c) the Declaration of Water and Energy Ministers of Johannesburg (2006). The Vision names RECs and Transboundary RBOs as central elements of the institutional framework for water management on the African continent.

The AWV has a framework of indicators and targets comprising of approximately 28 targets organised under four themes namely (1) improving governance of water resources; (2) improving water wisdom; (3) meeting urgent water needs; and (4) strengthening the financial base for desired water future. Relevant targets, towards which the NBIP could contribute, are shown below.

Table 5: *Relevant Targets of the African Water Vision for the year 2025*

African Water Vision Target
1. By 2025, enabling environment for regional cooperation on shared waters should be in place for 100% of river basin organisations in Africa
2. By 2025, reduce by 95% the proportion of population without access to safe and adequate water supply, and safe and adequate sanitation.
3. By 2025, increase by 60% the water productivity of rain-fed agriculture and irrigation; and increase by 100% the size of irrigated area.
4. By 2025, develop 25% of potential of water for agriculture, hydropower, industry, tourism, and transportation at national level.
5. By 2025, implement in 100% of river basins measures for conservation and restoration of environment, biodiversity, and life-supporting ecosystems.
6. By 2025, measures for effective management of drought, floods and desertification should be operational in 100% of countries.

4. Discussion: Mapping of REC Contributions to the Nile Investment Agenda

4.1 Analysis of salient features of the regional organisations

As part of the study, the information presented in the previous sections was analysed to define salient characteristics of the regional organisations, and identify differences and similarities between them. The key findings of the analysis are presented in the subsections below.

4.2 Institutional framework of the regional organisations

A quick comparison was made of the key organs of the regional organisations that have been reviewed. The comparison showed that ,relative to the RECs, the NBI has a less robust institutional set up.

The comparison Table below indicates that the EAC has the most robust institutional structure comprising of a Summit of Heads of States, Council of Ministers, Committee of Permanent Secretaries, Sectoral Committees, and Legislative Assembly, among others. The EAC is closely followed by COMESA, which has a similar institutional set up.

Table 6: *Comparison of key organs of the regional organisations*

10-YEAR STRATEGY PILLAR*	NBI	EAC/ LVBC	IGAD	COMESA	EAPP	AUDA-NEPAD
Summit of Heads of State and Government	✓	✓	✓	✓	✗	✓
Council of Ministers	✓	✓	✓	✓	✓	✗
Committee of Ambassadors	✗	✗	✓	✗	✗	✗
Court of Justice/ Independent Regulatory Board	✗	✓	✗	✓	✓	✗
Legislative Assembly	✗	✓	✗	✗	✗	✗
Committee of Permanent Secretaries/ Chief Executives	✗	✓	✗	✓	✓	✗
Technical Advisory Committee/ Sectoral Committees of Experts	✓	✓	✗	✓	✓	✓
Secretariat	✓	✓	✓	✓	✓	✓
Committee of Stakeholder Groups	✗	✗	✗	✓	✗	✗

*List includes navigation as the seventh pillar

Key ✓ present; ✗ absent

There have been a few meetings of Heads of States and Government of Nile Riparian countries convened specifically to discuss Nile matters. However, unlike the RECs (EAC, IGAD, COMESA and even PIDA/PICI), the Summit of Heads of States has not been formally incorporated into the organisational structure of the NBI. Hence, the Council of Ministers remains formally the highest decision-making body of the Nile Basin Initiative. This is a considerable disadvantage for the NBI as certain matters concerning transboundary water cooperation and equitable utilization of shared water resources can only be resolved at the level of the highest office of each Nile riparian country.

4.3 Membership of Regional Organisations

There is a large amount of overlap in the membership of the regional organisations. Two of the Nile riparians – Kenya and Uganda – are members in all six of the reviewed regional organisations (i.e. NBI, EAC/LVBC, IGAD, COMESA, EAPP and AUDA-NEPAD/African Union). Four other Nile riparians – Burundi, Ethiopia, Rwanda and Sudan – are members in five of the six regional organisations: Ethiopia and Sudan are members of all organisations except for the EAC/LVBC while Burundi and Rwanda are members of all organisations except for IGAD. The rest of the Nile riparian countries have membership in fewer regional organisations. The overlap in membership is best illustrated by the spaghetti bowl diagram below.

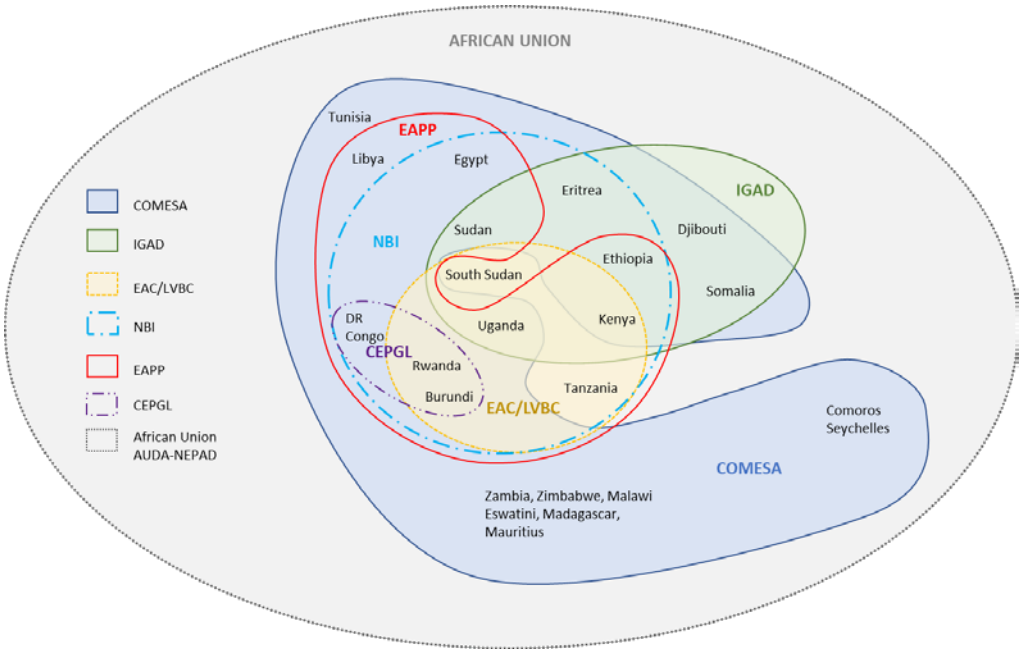

Figure 13: *The spaghetti -bowl diagram of NBI riparian country membership in regional organisations.*

The analysis of memberships in regional organisations shows that besides the NBI, the other regional organisation under which all Nile riparian countries could be brought to work collaboratively on the preparation and implementation of a basin-wide multi-sectoral and multi-actor Nile Basin Investment Programme (NBIP) is AUDA-NEPAD/African Union. The regional organisation of second choice, and perhaps the more practical choice from an operational point of view, is COMESA. COMESA has all 11 Nile riparians apart from South Sudan and Tanzania as members. The two non-members can be co-opted to joint activities of the NBIP programme.

COMESA is already the main REC overseeing the VICMED Project with the participation of the two non-COMESA countries.

Table 7: *Mapping of membership of NBI riparian countries in selected regional organisations*

10-YEAR STRATEGY PILLAR*	ENTRO/ NELSAP	EAC/ LVBC	IGAD	COMESA	EAPP	AUDA-NEPAD
Burundi	●	●	○	●	●	●
Democratic Republic of Congo	●	○	○	●	●	●
Egypt	●	○	○	●	●	●
Eritrea	◐	○	●	●	○	●
Ethiopia	●	○	●	●	●	●
Kenya	●	●	●	●	●	●
Rwanda	●	●	○	●	●	●
South Sudan	●	●	●	○	○	●
Sudan	●	○	●	●	●	●
Tanzania	●	●	○	○	●	●
Uganda	●	●	●	●	●	●

*List includes navigation as the seventh pillar

Key ○ not a member; ◐ observer status; ● full member

The advantages of using COMESA to advance the NBIP agenda as opposed to the NBI are the following:

1. COMESA, due to existing MOUs with the EAC and IGAD, and being an AU Recognised REC itself, can easily convene meetings on the Nile Agenda in which EAC/LVBC, IGAD and AUDA-NEPAD participate. The NBI is a lower level organisation (an RBO) than a REC and, therefore, would be challenged to convene a meeting of the three RECs (EAC, IGAD and COMESA) and AUDA-PIDA.
2. The EAPP would easily join the NBIP meetings as an affiliate organ of COMESA.
3. COMESA offers a platform for discussion of the Nile agenda that is convenient and neutral and avoids rivalries between NBI and other RBOs (intra-NBI rivalries, and NBI-LVBC rivalry) that could act as a detractor to the NBIP initiative.
4. COMESA has the Summit of Heads of Government as its highest organ, and through this will give the NBIP a higher profile and visibility than the NBI can be able to give.
5. COMESA has the Committee of Permanent Secretaries, which will ease the integration of the NBIP in national planning.
6. COMESA has Sector-specific Technical Committees, which can be used to support NBI's plans to strengthen national and regional level cross-sectoral coordination.
7. Cooperating on investment projects outside of the framework of the NBI could circumvent the obstacle of disagreement on the CFA, and provide a route for implementation of Eastern Nile investment projects.

8. Working with COMESA cements relationships between NBI and this regional body. The relationship was initiated by NELSAP through its collaboration with the EAPP and significant contribution to development of segments of COMESA's the North-South Power Corridor.

The drawbacks to the choice of COMESA over the NBI are the following:

1. COMESA does not have a strong legacy or footprint on investment project preparation or promotion or transboundary water management. COMESA has largely been focused on intra-Africa trade facilitation and promotion (as reviewed below).
2. Handing over the novel concept of the NBIP to COMESA weakens the NBI's claim to being the only regional platform that brings together all Nile riparians to discuss issues of the cooperative management and development of the shared Nile water resources. The expected benefits to Nile riparian countries from implementation of the NBIP could be worth this risk.

4.4 Mandates of the Regional Organisations

The analysis of mandates that have been reviewed in the previous Section reveals that the RECs reviewed (EAC/LVBC, IGAD and COMESA) have mandates that map onto all the NBI's strategic pillars (with the exception of the weak role of COMESA in water management). The EAPP on the other hand only maps on to energy security, while AUDA-NEPAD and PIDA Programmes map strongly onto energy security and transboundary water management and partially on water security and inland waterway transport.

Table 8: *Mapping of mandates/functions of regional organisations onto the NBI 10-Years (2017-2027) Strategy Pillars*

10-YEAR STRATEGY PILLAR*	ENTRO/ NELSAP	EAC/ LVBC	IGAD	COMESA	EAPP	AUDA-NEPAD
Water security	●	●	●	◐	○	◐
Energy security	●	●	●	●	●	●
Food security	●	●	●	●	○	○
Environmental sustainability	●	●	●	●	○	○
Climate change mitigation and adaptation	●	●	●	●	○	○
Transboundary water management	●	●	●	◐	○	●
Navigation/inland waterway transport	●	●	○	●	○	◐

*List includes navigation as the seventh pillar

Key ○ no role; ◐ partial role; ● full role

As shown in the previous section, the RECs have signed agreements to cooperate in areas of focus that are common to all, such as climate change adaptation and mitigation. This is one way that they are dealing with the overlap in mandates and membership.

4.5 Programmes and Projects of the Regional Organisations

As shown in the previous Section, each of the regional organisations has been preparing programmes covering different fields, and with a different proportion of investment projects in the total projects' portfolio. A simple definition of investment project is a development concept for which public and commercial financiers may provide funding (loans, concessions, equity, etc) with the expectation that they will produce income or profit, or both. Non-investment projects, and the preparatory stages of investment projects, are typically financed through grants and government fiscal transfers.

The Table below presents a qualitative analysis of distribution of investment programmes and projects of the regional organisations against key programme areas related to the 10 Year strategy.

Table 9: *Mapping of programmes of regional organisations onto the NBI 10-Years (2017-2027) Strategy Pillars*

PROGRAMME AREA	ENTRO/ NELSAP	LVBC	IGAD	COMESA	EAPP	AUDA-NEPAD
Water supply, sanitation, waste management, storm water management	★★☆☆☆	★★★★★	★☆☆☆☆	☆☆☆☆☆	☆☆☆☆☆	★☆☆☆☆
Energy generation, power transmission, interconnection	★★★★★	★☆☆☆☆	☆☆☆☆☆	★☆☆☆☆	★★☆☆☆	★★★★★
Agricultural irrigation, water use efficiency, food production and productivity, sustainable livelihoods	★★☆☆☆	☆☆☆☆☆	★★★☆☆	☆☆☆☆☆	☆☆☆☆☆	★★☆☆☆
Environmental sustainability, watershed & wetlands management,	★★★★☆	★★★☆☆	★★☆☆☆	☆☆☆☆☆	☆☆☆☆☆	☆☆☆☆☆
Climate change mitigation and adaptation	★☆☆☆☆	★★☆☆☆	★★★☆☆	★☆☆☆☆	☆☆☆☆☆	☆☆☆☆☆
Transboundary water governance	★★★★☆	★★★☆☆	★☆☆☆☆	☆☆☆☆☆	☆☆☆☆☆	★★★☆☆
Navigation/ inland waterway transport	★☆☆☆☆	★★★★☆	☆☆☆☆☆	★☆☆☆☆	☆☆☆☆☆	★★☆☆☆

*List includes navigation as the seventh pillar

Key ○ no role; ◐ partial role; ● full role

The table shows that while the mandates of the regional organisations are generally broad, the programme of each of the regional organisations tend to be concentrated in only a few areas. The areas where the programming of each region organisation is focused provides an indication of their potential contribution to the NBIP. These areas of relative strength are summarised in the Table below.

The NBI through, its two subsidiary arms of ENTRO and NELSAP, has by far the broadest and most comprehensive of investment programmes. This is attributed largely to the success of the multiple transboundary river basin integrated water resources management and development programmes launched in several sub-basins of the Nile River Basin (Kagera, Mara, Sio-Malaba-Malakisi, Lakes Edward and Albert, Baro-Akobo-Sobat, Nyimur, etc.) and the sub-regional energy development

programmes of the two SAPs. The two subsidiary organisations, through their many subprogrammes, have identified and prepared to different levels, investment projects across multiple sectors.

Table 10: *Areas of relative strength of the regional organisations.*

10-YEAR STRATEGY PILLAR*	ENTRO/ NELSAP
ENTRO/ NELSAP (Nile wide focus)	■ Hydropower generation ■ Power transmission, interconnection and power trade ■ Agricultural irrigation and agricultural productivity, soil and water conservation ■ Watershed management, degraded catchment restoration, wetlands management ■ Management of protected areas ■ Fisheries resources management ■ Inland waterway transport ■ Small scale water supply and sanitation
EAC/ LVBC (Focus on Lake Victoria and its catchments)	■ Water supply and sanitation ■ Wastewater treatment ■ Solid waste management ■ Pollution control activities ■ Degraded catchment restoration ■ Ecosystem management ■ Wetlands management ■ Water hyacinth control ■ Climate smart agriculture ■ Inland water navigation ■ Maritime safety
IGAD (Focus on cross-border communities)	■ Groundwater resources exploration and development ■ Sustainable rural livelihood activities ■ Integrated land and water management ■ Climate change adaptation ■ Degraded ecosystem restoration ■ Agriculture and livestock production infrastructure development ■ Rural roads development
COMESA	■ Regional economic integration ■ Establishment and operation of a free trade area ■ Regional trade facilitation
EAPP	■ Development of regulatory frameworks for power trade ■ Building technical capacity for power trading
AUDA-NEPAD	■ Coordination of identification, preparation, resource mobilisation and implementation of priority regional infrastructure projects in energy, transport, ICT and transboundary water management
AUDA-NEPAD	■ Coordination of identification, preparation, resource mobilisation and implementation of priority regional infrastructure projects in energy, transport, ICT and transboundary water management

4.6 Investment projects information management

Information on the pipeline of investment projects of the regional organisations is neither well organized nor readily available to the public. Commonly, the list of projects prepared by the regional organisations is a mixture of investment and non-investment projects (such as projects on capacity building and policy harmonization). The regional organisations further do not provide information on the history of individual projects (i.e., when first conceived, pre-feasibility

conducted, feasibility and detailed designs completed, resources mobilization and financial structuring carried out, CAPEX requirements, financing and financing sources for the different development stages of the project, etc.)

The information used in this study has been pieced together from multiple sources – annual reports, project summaries published on official websites of the regional organisations, Wikipedia pages of major infrastructure projects, media stories of infrastructure projects, etc.

The only exception in information management is AUDA-NEPAD, which has a web-based, searchable database on PIDA-PAP projects.

The NBI will need to take a cue from AUDA-PIDA to develop an online database and tracking tool for the priority projects under the NBIP.

4.7 Transboundary water projects in the PIDA-PAPs

Transboundary water projects only make up a tiny fraction of the PIDA-PIP projects. Under PIDA-PAP 2, only 9 out of 409 projects (i.e., 2.2% of PIDA-PAP 2 projects) are on transboundary water management. This could be due to low priority accorded to the transboundary water sector relative to energy, transport and ICT sectors, or lack of bankable projects of regional significance that could be included on the PIDA-PAP project portfolio.

4.8 NBIP and PIDA

By seeking to bring together RECs to develop a priority list of infrastructure projects of regional significance, seeking to build consensus on partnerships for project implementation, and introducing a new parallel list of priority infrastructure projects that Member States will be encouraged to promote alongside the official PIDA-PAP projects, the NBI is likely to attract criticism for attempting to duplicate PIDA and AUDA-NEPAD functions.

To avoid this criticism, the NBI will need to make AUDA-NEPAD a key partner in the development of the NBIP, and to request for the NBIP to be included as an addendum of PIDA-PAP 2. Lessons could also be drawn from the process of development of the NBIP and used in the identification of priority investment projects in other major transboundary projects in Africa such as the Orange-Senque, Okavango, Zambezi, Niger, Volta and Senegal River Basins. This could be presented to AUDA-NEPAD as a mechanism for addressing the low number of transboundary water projects under PIDA-PAPs.

5. Conclusions and Recommendations

5.1 Key findings

A desk study has been conducted to review the functions and investment programs of the RECs in Eastern Africa with a view to identifying their potential contribution to a Nile Basin Investment programme.

The key findings of the study are the following:

1. The study showed that while RECs have similar mandates and highly overlapping membership, there has not been much duplication in their investment programming as different RECs have focused their programming in different sectors and fields. The NBI has mostly focused on preparation of power interconnection and generation projects along with multipurpose water resources management and development projects (covering agricultural irrigation, water supply, fisheries resources development and watershed management projects) in major sub-basins of the Nile; the LVBC has mostly focused on control of pollution on Lake Victoria (through such measures as wastewater treatment and solid waste management in shoreline towns and cities, and watershed management), control of water hyacinth infestation, and inland water transport and maritime safety on Lake Victoria; IGAD has mostly focused on regional peace and security and building drought resilience and sustainable livelihoods for cross-border agro-pastoral communities in drought stricken areas; and COMESA has mostly focused on trade promotion through the Free Trade Area while its affiliate body the EAPP has largely focused on strengthening the regulatory environment for regional power trade. This differentiation in interventions helps the regional organisations to complement one another and avoid duplication.
2. The analysis of institutional frameworks showed that the NBI institutional structure is less robust than that of the RECs, which all have a Summit of Heads of States and Governments. The analysis further showed that COMESA would offer the most neutral platform for development of the NBIP. The geographical extent of COMESA, which spans parts of the other RECs, together with existing agreements between the RECs, makes it

easy for COMESA to convene a meeting of the other RECs to discuss the NBIP – something that would not be very easy for the NBI.

3. The analysis suggests that there is a considerable risk of conflict with PIDA-PAP unless the NBIP is prepared under the auspices of AUDA-NEPAD, and is added as an addendum to PIDA-PAP 2. The idea of developing a multi-sectoral and multi-agency regional investment program duplicates the PIDA programme.

4. Finally, the review identified weakness in the way that the regional organisations prepare and make available to the public information on investment projects. The NBIP will have to improve on knowledge and information management with respect to the propose portfolio of priority basin-wide investment projects.

5.2 Recommendations

It is recommended for NBI to approach AUDA-NEPAD and COMESA to introduce to them, and seek their views, on the idea to develop the Nile Basin Investment Program as a sister programme of PIDA-PAP. The discussions with AUDA-NEPAD and COMESA will determine how the other RECs are approached.

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7. Annexes

Annex 1: List of NBI Investment projects

Annex 2: List of LVBC Investment Projects

Annex 3: List of IGAD Programmes and Projects

Annex 4: List of Selected COMESA-Coordinated Projects

Annex 5: Priority Power Generation and Interconnection Projects in the EAPP Master Plan

Annex 6: Selected PIDA-PAP 1 Projects

Annex 7: Selected PIDA-PAP 2 Projects

Annex 8: Presidential Infrastructure Championship Initiative Projects

Annex 1: List of NBI Investment projects

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
THEME: WATER RESOURCES MANAGEMENT AND DEVELOPMENT					
Nile Equatorial Lakes Region					
1. Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources Management Project (LEAF II)	The project is a follow up to LEAF I and aims at creating an enabling environment and strengthening the legal, policy, institutional and regulatory framework for sustainable management of natural resources of the two lakes and their catchments. The project will also make a contribution the creation of alternative income opportunities and food security for men and women in the fishing communities of the two lakes.	23.75	DR Congo, Uganda	5 years	Under Implementation
2. Nyimur/Limur multipurpose water resources project studies	The Nyimur/Limur multipurpose water resources project share by South Sudan an Uganda. The project comprises of several components including a community-based irrigation scheme, a dam and water reservoir, a water and soil conservation component and flood control component. The core scheme of the project consists of a 26 m head dam on the Nyimur River, a mini hydropower plant with a 350 kW capacity; and development of 5,105 ha for paddy rice irrigation.	24.21	South Sudan, Uganda	5 years	Feasibility studies completed; resource mobilization underway
3. Sio-Sango Water Resources Projects	The project is located along the transboundary River Sio and aims to boost national and regional economic development through infrastructural and non-structural interventions. It includes (i) a 21m height earth fill embankment dam, with a storage capacity of 3.92 MCM; (ii) 1,700 ha of irrigated agriculture; (iii) a mini-hydropower component of 260 kW; (iv) a water supply system to serve 20,000 people by 2035; (v) flow regulation for drought and flood control functions; (vi) restoration of degraded upstream sub-catchments.	39.5	Kenya	5 years	Feasibility studies completed; designs prepared
4. Kocholio Dam/Amoni-Amagoro Irrigation and Food Crop Value Chain Development Project	The project comprises of 43 m height composite dam (Kocholia dam) on the Malakisi River with storage capacity of 66.9 MCM, a command irrigation area of 4,000 ha, hydropower generation capacity of 1.091 MW, water regulation for drought and flood control and restoration of degraded upstream catchments.	59.5	Kenya	5 years	S2A: Pre-feasibility studies completed
5. Angololo Multipurpose Water Resources Transboundary Project	The project, which is located on the transboundary Malaba River, consists of a proposed 30 m high dam with a reservoir capacity of 43.0 MCM and hydropower generation capacity of 1.75 MW. The dam will supply potable water to 20,000 people and irrigate 3,300 hectares (1,180 ha in Kenya and 2,120 ha in Uganda). The project also includes rehabilitation of the 430 km^2 watershed upstream of the dam.	67.00	Kenya, Uganda	5 years	S2B: Feasibility Studies ongoing
6. Soono Transboundary Multipurpose Water Resources Development Project	The Project will construct three mini power stations with a total capacity of 1.9 MW located at Soono/Butale, Bunjosi and Butinga on the tributaries of the transboundary Lwakhakha River.	10.00	Kenya, Uganda	5 years	S1: Project Identification
7. Maira Dam Project/Lower Sio Irrigation Scheme	The Maira Dam comprises of a 13.5 m height dam, 810 m wide, with maximum storage capacity of 4.17 MCM, and hydropower generation capacity of 0.012 MW. The Maira Dam will command an irrigation area of 2,000 ha in the lower Sio catchment and benefit 3,000 people.	48.00	Kenya, Uganda	5 years	S3B and S4:: Feasibility and design studies completed; part funding secured and implementation of irrigation scheme ongoing
8. Borenga Multipurpose Water	The Borenga Project is located on the transboundary Mara River close to the villages of	180.00	Tanzania	5 years	S3: Feasibility and design

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
Resources Development Project	Nyamongo and Mara in Tarime District, Northern Tanzania. The project comprises of a 30m height dam with a reservoir of 19 MCM storage capacity; a command irrigation area of 8,340 ha located in the Mara Valley; hydroelectric power generation capacity of 2.85 MW; and domestic water supply. 500,000 people are expected to benefit from the project.				studies completed
9. Bigasha-Omumukura Multipurpose Water Resources Development Project	The Project is located on the Omukura River which drains into the Kagera River. The project comprises of the development of 500 ha for irrigation and supply of water to 118,000 people.	64.00	Uganda	5 years	S3A: Feasibility and design studies completed; resource mobilization underway
10. Ngono Valley Multipurpose Water Resources Development Project	The Ngono Valley is located in Bukoba Rural and Missenyi Districts of Kagera Region, Northern Tanzania and lies in the Kagera River Basin. The project is envisaged to include irrigation development of 13,000 ha in the Ngono Valley; with the irrigation water abstracted from Lake Ikimba, the main Ngono River and its two its tributaries of Ngono West and Ngono East, as well as from a proposed 26m earthfill dam (Kalebe Dam) across the Ngono East River. The project will allow for restoration of critically degraded 'hotspots' in the 3,200 km^2 catchment upstream of the proposed dam.		Tanzania	5 years	Feasibility and design studies ongoing
11. Mara Valley Multipurpose Water Resources Development Project	The Mara Valley Project lies on the left bank of the Mara River in Ngoreme Division of Serengeti District, Mara Region, Northern Tanzania. The project includes irrigation development of 8,340 ha, with the irrigation water abstracted from the Mara River through diversion headworks and intake (no dam or impoundment). The project will also include restoration of critically degraded 'hotspots' in the project's upstream catchment of 13,750 km^2.		Tanzania	5 years	Feasibility and design studies ongoing
12. Akanyaru Transboundary Multipurpose Water Resources Development Project	The Akanyaru Multipurpose project is located along the transboundary Akanyaru River (a tributary of the Nyabarongo and Kagera Rivers in Lake Victoria Basin) shared by Burundi and Rwanda. The project comprises a 52m high dam with storage capacity of 333 MCM that will supply water to 614,200 people and livestock, and irrigate 12,474 ha directly benefitting 24,948 farmers. It will also generate 14.5 MW hydropower which will power 141,111 homes and serve 846,000 people. The project also includes restoration of degraded watersheds upstream of the dam, flood control and employment creation.	191.00	Burundi, Rwanda	5 years	Feasibility and design studies ongoing
13. Kabuyanda Multipurpose Water Resources Development Project	The Kabuyanda Water Resources Development Project, renamed Kabuyanda Irrigation Scheme, is located in Isingiro and Ntungamo Districts in south-western Uganda. The project consists of a dam (Kabuyanda dam) and an irrigation scheme. The dam is a 33 m high earth-fill dam on the Mishumba River (in the Kagera Basin) with a 8.8 MCM reservoir and 90 km^2 drainage area. The dam will be located approximately 5 km north-west of Kabuyanda Town, and will submerge an area of 100 ha within the Rwoho Central Forest Reserve (CFR). The irrigation area served by the dam is expected to cover 3,300 ha.		Uganda	5 years	S4: Feasibility and design studies have been completed; resources for implementation have been secured
14. Ruvyironza Multipurpose Water Resources Development Project	The project is located along the Ruvyironza River (a tributary of the Kagera River) near the village of Gatake in central Burundi. The project is envisaged to include a 65 m height composite earth fill-concrete dam with storage capacity of 266 MCM, which will expand irrigation by 14,674 ha and provide food for about 124,740 people (paddy rice and likely to include pulses and vegetables for local markets including Gitega town). The project also includes hydropower generation of 22 MW, supply of power to 846,000 people, supply of drinking water to 265,000 people, and restoration of degraded lands in the 2000 km^2 catchment upstream of the dam.		Burundi, Rwanda	5 years	Feasibility and design studies have been completed; resources for implementation have been secured
15. Karazi	The Karazi project area is located in Karagwe	62.60	Tanzania		Project feasibility

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
Multipurpose Water Resources Development Project	district, northern Tanzania and lies along a seasonal stream that drains into the Kagera River. The project comprises of an 11 m height dam; reservoir storage capacity of 9.62 MCM; irrigation area of 583 ha; and water supply system consisting of treatment plant, 3 main tanks, 14 storage tanks and distribution system.				completed
16. Buyongwe Multipurpose Water Resources Development Project	The Buyongwe project area is located along the Buyongwe river, which drains into the Akanyaru river and eventually into the Nyabarongo River (a tributary of the Kagera River). The project comprises of hydropower component to improve an existing 0.065 MW power plant; an irrigation component with a 1120 ha command area; a water supply component providing water to 690,000 people and livestock from 7 communes in 3 provinces (Ngozi, Kirundo and Muyinga); and an aquaculture component introducing fish farming in rice paddies and 1.8 ha of small fish ponds.	23.40	Burundi	5 years	Project feasibility completed
17. Taba-Gakomeye Multipurpose Water Resources Development Project	The Taba-Gakomeye site is located along the Mwogo River (Rwanda), which is a tributary of the Akanyaru and Nyabarongo Rivers. The project comprises of a 14m height dam; 3.09 MCM storage reservoir; 0.064 MW hydropower capacity; irrigation of 183 ha; flood protection; water supply to 158,000 people and their livestock (from 8 sectors in three districts - Huye, Nyamagabe and Nyaruguru); and aquaculture through 2.29 ha of fish ponds.	67.70	Rwanda	5 years	Project feasibility completed
18. Jebel Awelia-Renk-Malakal Integrated Water Resources and Fisheries Management Project	The project is a transboundary project located on the White Nile close to the border between South Sudan and Sudan. The project involves water supply and fisheries management along a 629 km length of the Jebel Awhelia reservoir two-thirds of which is in Sudan, and one third is in South Sudan.		South Suda, Sudan		S1: Project Identification
19. Bahr El Arab/ Bahr El Ghazal Basin Management and Development Project			South Sudan, Sudan		Project Identification
Eastern Nile Sub-Basin					
20. Eastern Nile Watershed Management Project (ENWMP)	The was designed to provide an integrated watershed management system to address the root causes of watershed degradation, and increase the adoption by the Eastern Nile countries of sustainable land and water management practices in selected micro-watersheds in the Eastern Nile Basin. Under the project, comprehensive Cooperative Regional Assessment was carried out through which the entire Eastern Nile watershed was analysed, and critical hotspots and 13 investment projects were identified for national implementation. The project was also used to implement watershed management interventions in 7 priority catchments in Ethiopia (Upper Rib, Upper Gumera and Jemma), Sudan (Dinder, Ingasena and Lower Atbara) and Egypt (Lake Nasser/Lake Nubia)	35.40	Egypt, Ethiopia and Sudan	7 years	S4C: Implementation; project completed in 2015
21. Dinger Bereha Irrigation and Drainage Project	Development of 7,500 ha irrigation scheme at Dinger Bereha in Chewaka Woreda in Oromia National Regional State. The project will abstract water from the Didessa River and comprises of headworks comprising of mass concrete weir, a 15 km main canal, primary canals and tertiary distribution system of HDPE pipes.	70.00	Ethiopia	5 years	S2B: Feasibility completed in 2010
22. Wad Miskeen Irrigation and Drainage Project	The 7,500 ha Wad Miskeen irrigation project is located in the Gezira and Gaderif States in Sudan. It consists of a barrage on the Rahad River, link canal and feeder canals.	40.00	Sudan	5 years	S2B: Feasibility completed in 2010
23. Abbay-Blue Nile Integrated Water Resources Development	Preparation of an integrated project with components on irrigation development and agricultural production, livestock husbandry, water supply and sanitation, sustainable land and		Ethiopia, Sudan	5 years	S1: Identification

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
Project	water management; and restoration of degraded watersheds.				
24. Tekeze-Setit-Atbara Integrated Water Resources Development Project	Development of 3 irrigation schemes in Ethiopia (Humara (60,000 ha), Angereb (16,500 ha), Metema (11,600 ha), Wolkayit (50,000 ha), 1 irrigation scheme in Sudan (Upper Atbara (200,000) and water harvesting structures in both countries.		Ethiopia, Sudan	5 years	S1: Identification
25. Dinder-Rahad Water Resources Development Projects	Preparation of an integrated project with components on irrigation development and agricultural production, livestock husbandry, water supply and sanitation, sustainable land and water management; and restoration of degraded watersheds.		Ethiopia, Sudan	5 years	S1: Identification
26. Eastern Nile Transboundary Watershed Management Programme	The programme will aim to reduce soil erosion and sediment transport in the Eastern Nile through an integrated transboundary approach. Interventions include developing a watershed management data collection system; undertaking studies and surveys on soil erosion and capacity building in the area of sustainable livelihoods.		Egypt, Ethiopia, Sudan	1.5 years	S1: Identification.
27. Baro-Akobo-Sobat Watershed Management Programme	The project will be used to identify and prepare watershed management projects for the Baro-Akobo-Sobat Basin	1.50	Ethiopia, South Sudan, Sudan	1.5 years	S1: Identification
28. Dinder-Rahad Watershed Management Programme	The project will be used to identify and prepare watershed management projects for the Dinder-Rahas Sub-Basin	1.50	Ethiopia, Sudan	1.5 years	S1: Identification
29. Gambella – Machar Transboundary National Park Environmental Protection Project	This project will develop an institutional framework for the management of the proposed Gambella Machar Transboundary National Park (GMTBNP) and develop a Management Plan for the GMTBNP.	3.00	Ethiopia, South Sudan	3 years	S1: Identification
30. Dinder-Altash Transboundary National Park Environmental Protection Project	This project will develop an institutional framework for the management of the proposed Dinder Altash Trans-boundary National Park (DATBNP) and develop a Management Plan for the DATBNP.	3.00	Ethiopia, Sudan	3 years	S1: Identification
31. Eastern Nile Transboundary Water Quality Monitoring Programme	This project will be used to develop a water quality monitoring programme with the whole of the Eastern Nile.	3.00	Egypt, Ethiopia, South Sudan, Sudan	1.5years	S1: Identification
32. Improving the Performance of the Existing Irrigation Schemes in the Eastern Nile Sub-Basin	This programme will be used to rehabilitate existing irrigation schemes in the Eastern Nile and introduce improve irrigation and drainage technologies and agronomic practices so as to improve the water efficiency and agricultural productivity of the schemes.	40,500	Egypt, Ethiopia, South Sudan, Sudan	10 years	S1: Identification
33. Transboundary Hydro-Meteorological and Environmental Monitoring System and Environmental Flows Assessment	This project is intended to develop an extensive hydro-meteorological and environmental monitoring system in the Baro-Akobo-Sobat sub-basin and, based on an assessment of the information collected, to determine the environmental flow requirements at key points in the system.	10.52	Ethiopia, South Sudan, Sudan	8 years	S1: Identification
34. Integrated BAS Hydropower, Irrigation and Multipurpose Development Programme - Phase 1: Baro/Sobat Component.	The project will implement Phase 1 of the BAS IWRDMPlan which focuses on development of hydropower and associated transboundary development opportunities (irrigation, fisheries, navigation) on the Baro River and its tributaries. This includes the development of opportunities on the Sobat River which are dependent to a large extent on flows coming from the Baro River. The proposed study shall make recommendations on the sequencing, operating principles and management rules of priority large scale hydropower projects (TAMS and Geba dams) and associated development on the Baro river.	6.70	Ethiopia, South Sudan, Sudan	10 years	S1: Identification
35. Machar Marshes Integrated Water Resources Management Plan	This project will be used to carry out water resources and socio-economic assessments and prepare an Integrated Water Resources Management Plan for the Machar Marshes which	6.40	Ethiopia, South Sudan, Sudan		S1: Identification

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
	are located in Upper Nile State in South Sudan. The Machar Marshes are poorly understood in terms of both the existing socio-economic conditions and hydro-environmental functioning. Its status is highly dependent on flows coming from the Baro River upstream which are likely to change over time in the future as upstream developments enfold.				
36. Akobo – Pibor transboundary multipurpose development project	The Akobo River has very scanty information, which hinders the development of its water resources. The project will carry out a derailed assessment of the Akobo sub-basin, include the assessment of hydropower on the upper part of the joint South Sudan / Ethiopia border section of the Akobo River, irrigation further downstream and associated multipurpose development opportunities.	2.90	Ethiopia, South Sudan	5 years	S1: Identification
37. Flood-Risk Mapping and Early-Warning System.	This project, which will build on ENTRO's Flood Preparedness and Early Warning project (FPEW), will carry out an analysis of the relationship between upstream flows and flooding extent in priority risk areas of the Gambella Floodplains. The project will also include development of a real-time or quasi-real-time early warning system aimed at providing early warning of high discharge levels in the rivers discharging into the Gambella Floodplains.	10.00	Ethiopia, South Sudan	10 years	S1: Identification
38. Boma-Gambella Transboundary National Park	The project aims at designating Boma-Gambella as one transboundary national park to strengthen transboundary cooperation and enhance effective protection. Preliminary activities have already been implemented as part of the project of transboundary cooperation between South Sudan and Ethiopia led by the Horn of Africa Regional Environment Centre (HoA-REC) for the cooperative management of Boma and Gambella national parks.	16.00	Ethiopia, South Sudan	5 years	S1: Identification
39. Cingaineta River Multipurpose Development Project	The water resources of the Cingaineta River and its tributaries are untapped. This project will investigate options for the development and management of the water resources of the Chingaineta River with a view to provide a more reliable water source for those living in and around Kapoeta, while is located along this river. The project will be multipurpose in nature, and assess how the development of water resources can also support aquaculture, stock watering and small-scale irrigation.	13.00	South Sudan	10 years	S1: Identification
40. Livelihood-Based Watershed Management – Taking to Scale for a Basinwide Impact	This project will support the identification of small-scale livelihood-based watershed management with an emphasis on the development of sustainable Multisectoral opportunities followed by the design and implementation of a programme to take the approach to scale. The microprojects, when taken to scale, represent real basinwide solutions to some of the key environmental and socio-economic challenges in the BAS Sub-Basin such as high levels of sediment transport, lack of food security etc.	49.475	Ethiopia, South Sudan, Sudan	23 years	S1: Identification
THEME: POWER DEVELOPMENT AND TRADE					
Nile Equatorial Lakes Region - Generation					
41. Regional Rusumo Falls Hydroelectric Multipurpose Project	The Regional Rusumo Falls Hydropower Electric and Multipurpose Project is a run-of-river hydropower scheme on the Kagera River. The project, which is located near the town of Rusumo on the Rwanda-Tanzania border has two components: (a) construction of an 80 MW power plant; and (b) construction of three power transmission lines from Rusumo to the three countries.	461.00	Burundi, Rwanda, Tanzania	7 years	S4: Construction
42. Malagarasi Hydropower Project	Construction of a 41 MW hydropower station at Malagarasi in Tanzania.	153.00	Tanzania		Feasibility studies completed; detailed designs

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
					and tender documents prepared.
43. Kakono Hydropower Project	Construction of a 41 MW hydropower station at Kakono in Northern Tanzania.	96.00	Tanzania		Feasibility studies completed; detailed designs and tender documents prepared.
44. Lakki Hydropower Plant	Construction of a 410 MW hydropower plant at Lakki in South Sudan.		South Sudan		Project Identification
45. Shukoli hydropower plant	Construction of a 235 MW hydropower plant at Shukoli in South Sudan.		South Sudan		Project Identification
46. Semuliki Hydropower Project	Construction of a 72 MW hydropower station along the Semliki River on the Uganda-DR Congo border		DR Congo, Uganda		Project Identification
47. Mugomba Hydropower Project	Construction of a 100 MW hydropower station in Mugomba, Eastern DR Congo.		DR Congo		Project Identification
48. Akanyaru River Small Hydropower Project	Construction of a 4 MW hydropower station on the Akanyaru River in Rwanda.		Rwanda		Project Identification
49. Bedden Hydropower Plant	Construction of a 540 MW hydropower station at Bedden in South Sudan.		South Sudan		Project Prefeasibility Study
Eastern Nile Sub-Basin - Generation					
50. Dal Hydropower Project	The Dal project site is located on the Nile in Sudan some 280 km downstream of Dongola and immediately upstream of Lake Nubia / Lake Nasser. The project comprises of a 30 m high dam with 1400 m long crest and 400 MW installed generation capacity. The dam will create a reservoir of area 300 km^2 and 2470 MCM storage volume of.	1,113.20	Sudan	7.5 years	S2A: Pre-feasibility completed in 2007
51. Mandaya Hydropower Project	The Mandaya project site is located on the Blue Nile (Abbay River) in Ethiopia some 20 km downstream of the confluence of the Abay and Didessa Rivers. The project comprises of a 200 m high roller compacted concrete dam with 1400 m long crest and 2000 MW installed generation capacity. The dam will create a reservoir of surface area 736 km^2 and 49,200 MCM storage capacity.	2,472.00	Ethiopia	8 years	S2A: Pre-feasibility completed in 2007
52. Border Hydropower Project	The Border project site is located on the Abbay River (Blue Nile) some 30 km downstream of its confluence with the Beles river and 20 km upstream of the Ethiopia – Sudan border. The project comprises of a 90 m high roller compacted concrete dam with 1500 m long crest and 1200 MW installed generation capacity. The dam will create a reservoir of surface area 574 km^2 and 14,500 MCM storage capacity.	1,481.00	Ethiopia	7.5 years	S2A: Pre-feasibility completed in 2007
Nile Equatorial Lakes Region - Transmission					
53. Interconnection of the electric grids of the Nile Equatorial Lakes countries	The project aims to improve the infrastructure for interconnection of the electricity grids of the NEL countries in order to increase cross-border exchange of electricity between them. The project consists of the construction of 946 km of 220/400 kV power transmission lines and 17 power substations. The cross-border transmission lines are the following: 260 km Bujagali-Lessos (Uganda-Kenya); 172 km Mbarara-Mirama-Shango (Uganda-Rwanda); 293 km Buhandahanda-Goma-Gisenyi-Kibuye-Shango (DR Congo-Rwanda); 78 km Kamanyora-Bujumbura (DR Congo-Burundi); and 143 km Kigoma-Butare-Ngozi-Gitega (Rwanda-Burundi).	490.00	Burundi, DR Congo, Kenya, Rwanda, Uganda	7 years	S4: Construction
54. Uganda (Nkenda) – DR Congo (Beni-Butembo-Bunia)	Construction of a 396 km 220 kV transmission line connecting Nkenda in Uganda to Beni, Butembo and Bunia in the DR Congo.	165.00	DR Congo, Uganda		Feasibility studies completed;

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
Power Transmission Line					detailed designs and tender documents prepared.
55. Burundi (Jiji-Mulembwe) – Tanzania (Kigoma) Power Transmission Line	Construction of a 180 km 220 kV power transmission line from Jiji in Burundi to Kigoma in Tanzania.	180.00	Burundi, Tanzania		Project Identification
56. Kenya – Tanzania 400 kV Power Interconnection Project	Construction of a 507 km 400 kV transmission line connecting the grids in Kenya and Tanzania.		Kenya, Tanzania		Construction
57. Iringa-Mbeya Transmission Line	Construction of a 292 km 400 kV transmission line connecting Iringa to Mbeya in Southern Tanzania	191.00	Tanzania		Feasibility studies completed; detailed designs and tender documents prepared.
58. Tanzania (Mbeya) – Zambia (Kasama-Kabwe) Power Transmission Line	Construction of a 1,322 km 330/400 kV transmission line connecting Mbeya in Tanzania to Kasama and Kabwe in Zambia. The project also involves construction of 9 substations.	574.00	Tanzania	5 years	Feasibility studies completed in 2017; detailed designs and tender documents prepared.
59. Uganda (Olwiyo) – South Sudan (Juba) 400 kV Power Transmission Interconnection Identification	Construction of a 254 km 400 kV power transmission line connecting Olwiyo in Uganda to Juba in Southern Sudan.	170.00	South Sudan		Project Identification
60. South Sudan (Juba-Torit-Kapoeta) – Kenya (Lokichogio) Power Transmission Line – Phase 1	Construction of a 480 km 220 kV power transmission line connecting Juba in South Sudan to Lokichogio in Kenya.	86.00	Kenya, South Sudan		Project Identification
61. Renk – Malakal Power Transmission Line	Construction of a 320 km 220 kV power transmission line connecting Renk to Malakal in South Sudan.	154.00	South Sudan		Project Identification
62. Bor – Malakal Power Transmission Line	Construction of a 360 km 400 kV power transmission line connecting Bor to Malakal in South Sudan.	108.00	South Sudan		Project Identification
63. Malakal – Bentiu Power Transmission Line	Construction of a 222 km 220 kV power transmission line connecting Bentiu to Malakal in South Sudan.	52.00	South Sudan		Project Identification
64. Hydropower Expansion and Regional Integration of South Sudan			South Sudan		Feasibility studies completed
65. Ethiopia (Dedesa-Tepi) – South Sudan (Bor-Juba) Power Transmission Line	Construction of a 704 km 400 kV AC/ 500 HUDC power transmission line connecting Dedesa in Oromia Region, Western Ethiopia, to Juba in South Sudan.	420.00	Ethiopia, South Sudan		Project Identification
66. Ethiopia (Gambela) – South Sudan (Malakal) Power Transmission Line – Phase 1	Construction of a 357 km 230 kV power transmission line connecting Gambela in Ethiopia to Malakal in South Sudan.	102.00	Ethiopia, South Sudan		Project Identification
Eastern Nile Sub-Basin - Transmission					
67. The Ethiopia-Sudan Transmission Interconnection Project	The project comprised of a new 194 km double circuit 230/220 KV transmission line linking Shehedi in Ethiopia to Gedaref in Sudan; reinforcement of Ethiopia's existing 260 km single circuit line linking Bahir Dar to Gonder and Shehedi; and a new 36.5 km high voltage, double circuit, 230/220 kV, three phase alternating current transmission line linking Shehedi to Metema at the Ethiopia-Sudan	55.80	Ethiopia, Sudan	5 years (2009-2013)	S4C: Operation; project completed

TABLE A-1	NILE BASIN INITIATIVE PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
	border.				
68. Regional Interconnection Project	This project will improve power trade between the Eastern Nile riparian countries. The project will have several components including 500/400 kV substation located at Mandaya HHP (Ethiopia) equipped with four 500/400 kV transformers 510 MVAr each; four 500 kV AC circuits between Mandaya HPP and Kosti 500 kV sub-stations (570 km); AC/DC 2 x 1075 MW converter station located at Kosti substation in Sudan, and a SVC; and 600 kV DC bipolar line between Rabak (Sudan) and Nag Hammadi (Egypt). (1650 Km).	1,894	Egypt, Ethiopia, Sudan	8 years	S2B: Feasibility
THEME: TRANSPORT AND NAVIGATION					
Nile Equatorial Lake Region					
69. Preparation of an Inland Waterway Sector Investment Program in the Lake Albert, Albert Nile and Bahr El Jebel sub-basins in the Nile Basin.			South Sudan, Uganda		S1: Project Identification
70. Rehabilitation of the Navigation Route from Khartoum to Juba (White Nile and Bahr El Jebel)			South Sudan, Sudan, Uganda		S1: Project Identification
Eastern Nile Sub-Basin					
71. Regional Transport and Navigation Development Project	This project will investigate and evaluate the feasibility of investments to improve the role of navigation in the Baro-Akobo-Sobat sub-basin within the context of regional transport and access to markets as a whole. It will also to carry out the necessary planning and design work to get the project ready for implementation and support its implementation.	4.50 (project prep only)	Egypt, Ethiopia, South Sudan, Sudan	4 years	S1: Project Identification

Annex 2: List of LVBC Investment Projects

TABLE A-2	LVBC PROJECT PORTFOLIO				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
THEME: WATER SUPPLY, SANITATION, WASTE MANAGEMENT AND POPULATION HEALTH					
1. Lake Victoria Basin Integrated Water Resources Management Programme (LVB-IWRMP)	An open, and integrated umbrella programme, targeted at the promotion of regional cooperation, partnership-building, institutional and capacity enhancement, and investments towards achieving the overarching goal of managing the Lake Basin as a regional public good, protection of the water environment, sustainable utilization of natural resources, and climate change resiliency. The programme has three components, namely (1) promoting harmonization of policy and regulatory frameworks and promoting IWRM approaches; (2) identification, selection and implementation of priority IWRM infrastructure investments in the lake basin; and (3) establishing IWRM database		Kenya, Rwanda, Tanzania, Uganda	5 years	Under implementation S2A:pre-feasibility for HPIs

TABLE A-2 **LVBC PROJECT PORTFOLIO**

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
	and developing decision support tools for investments and basin management. Four High Priority Investments (HPI) have been identified as follows: constructed wetlands in the Nakivubo Wetlands, Kampala, Uganda; wastewater treatment and sewerage in Mwanza, Tanzania; faecal sludge treatment in Kigali, Rwanda and; Kisumu informal settlement sanitation, Kenya.				
2. Lake Victoria Environmental Management Programme II (LVEMP-II)	Improving collaborative management of transboundary natural resources of the Lake Victoria Basin by EAC Partner States, improving management of pollution hotspots in selected degraded sub-catchments of the Lake Victoria Basin and increasing access to improved sanitation facilities.	90.00	Kenya, Rwanda, Tanzania, Uganda	5 years	Completed
3. Upscaling the Lake Victoria Water Supply and Sanitation Program	Construction of water supply and sanitation systems, improving solid waste and storm water management, improving watershed management, improving urban planning and building capacity of urban authorities in 15 secondary towns in the Lake Victoria Basin.	156.00	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S3A – Project Structuring
4. The Lake Victoria Water and Sanitation Initiative (LVWATSAN I)	Construction of water supply and sanitation systems, improving solid waste and storm water management, improving watershed management, improving urban planning and building capacity of urban authorities in 10 secondary towns in the Lake Victoria Basin.		Kenya, Tanzania, Uganda	EAC	S4C - Operation
5. The Lake Victoria Water and Sanitation Initiative – Phase II (LVWATSAN II)	Construction of water supply and sanitation systems, improving solid waste and storm water management, improving watershed management, improving urban planning and building capacity of urban authorities in 15 secondary towns in the Lake Victoria Basin.		Burundi, Kenya, Rwanda, Tanzania, Uganda	EAC	S4C - Operation
6. Transboundary Water Supply and Sanitation Program in Lake Victoria Basin	An integrated package of interventions comprising water supply and sanitation improvements, solid waste management, drainage improvements, as well as capacity building and training in 9 secondary transboundary towns in the EAC Partner States.	62.00	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S3A – Project Structuring
7. Integrated Solid Waste Management in The Lake Victoria Basin	Constructing, equipping and commissioning solid waste sorting, re-cycling, re-use and composting sites with capacity to handle at least 70 tonnes of municipal solid waste per day in 10 towns in the EAC partner states.	15.00	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S2A – Pre-feasibility
8. Integrated HIV&AIDS and Reproductive Health Project in Lake Victoria Basin (IHARP-LVB)	Enhancing individual and institutional competencies and frameworks for responding to HIV/AIDS and reproductive health issues among mobile populations in the Lake Victoria Basin	8.29	Burundi, Kenya, Rwanda, Tanzania, Uganda	4 years	S2B: Feasibility
9. Integrated Population, Health and Environment Project for Lake Victoria Islands (PHE-LVI)	Strengthening household, community and institutional competencies and institutional frameworks on integrated Population, Health and Environment for enhanced environmental conservation practices and increased access to basic health services.	4.05	Kenya, Tanzania, Uganda	3 years	S1: Identification
10. Engaging Private Sector for Green Growth in Lake Victoria Basin (EPSGG-LVB) Project	Increasing use of, and investment in, resource efficient and cleaner production (RECP) technologies by private enterprises in the Lake Victoria Basin. The project is being implemented through National Cleaner Production Centres of the Partner States.	3.65	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S4: Under Implementation
THEME 2: CLIMATE CHANGE, ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT					
11. Planning for Resilience in East Africa through Policy Adaptation, Research and Economic Development (PREPARED) Program	This USAID-funded program works with the East African Community, LVBC, the EAC Partner States and other stakeholders (including IGAD) to introduce resilient strategies that can lessen the impacts of climate change, strengthen management of transboundary freshwater ecosystems, improve access to supply of drinking water and sanitation services, and pilot innovative approaches to reduce wildlife poaching and reduce human-wildlife conflicts.	40.00	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	Under Implementation
12. Reducing	Establishment of a transboundary REDD+	17.69	Kenya,	6	S1:

TABLE A-2 **LVBC PROJECT PORTFOLIO**

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
Emissions from Deforestation and Forest Degradation (REDD+) Program for the Mt. Elgon Ecosystem	framework and implementation of pilot activities in the Mt. Elgon ecosystem aimed at reducing deforestation and forest degradation thereby contributing to sustainable management of forests, enhancement of forest carbon stocks (REDD+) and climate change mitigation and adaptation.		Uganda	years	Identification
13. Integrated Climate Change Adaptation and Mitigation Programme In the Lake Victoria Basin	Enhancing the resilience of landscapes and communities in the Lake Victoria Basin to the impacts of climate change through strengthening the enabling environment, controlling ecosystem degradation, building capacity of communities and promoting adaptive livelihoods.	5.00	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S3A: Project Structuring
14. Regional Water Resources Management Project: Supporting Regional Cooperation for Sustainable Development of Water and Related Resources in the Lake Victoria Basin	Addressing the water quality challenge of the lake, and improving the sustainable management of the water resources of the Lake Victoria Basin through preparation of pollution control plans, capacity building of central and local government agencies, and promotion of IWRM approaches.	3.60	Burundi, Kenya, Rwanda, Tanzania, Uganda	4 years	S3A: Project Structuring
15. Mechanical Removal and Management of Water Hyacinth in Lake Victoria	Effective control of water hyacinth through manual, mechanical and biological methods to facilitate maritime transport and restoration of the fishery potential of Lake Victoria.	14.046	Kenya, Tanzania, Uganda	3 years	S1: Identification
16. Kisat River Catchment Restoration Project (KRCRP)	Improving livelihoods and enhancing environmental quality through the rehabilitation, restoration and sustainable management of the catchment of the Kisat River in Kenya.	3.20	Kenya	5 years	S2A: Pre-feasibility
17. Promoting Natural Resources Management in Nyungwe – Kibira Transboundary Ecosystems	Promoting participatory and sustainable management, use and conservation of natural resources in the Kibira-Nyungwe transboundary ecosystems of the Lake Victoria Basin in order to contribute to poverty eradication, stability and regional peace. Interventions include introducing participatory benefit sharing, zoning of protected areas and forest reserves for livelihood access, climate change adaptation and mitigation and strengthening policy and regulatory framework.	6.30	Burundi, Rwanda	4 years	S2B: Feasibility
18. Development of The State of The Lake and Basin Report	To enhance stakeholder understanding of, and aid investment decision making on the state of the lake and its basin with focus on water quality, quantity, ecosystem health and integrity and economic productivity and livelihoods.	1.12	Burundi, Kenya, Rwanda, Tanzania, Uganda	1 year	S1: Identification
19. Population, Health and Environment (PHE) Program	Introducing approaches to integrate health and environmental conservation initiatives in order to foster greater synergistic success for environmental conservation and human welfare outcomes than is possible through single-sector approaches.		Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	Completed
THEME 3: ECONOMIC AND INFRASTRUCTURE DEVELOPMENT					
20. Maritime Communications for Safety on Lake Victoria (MCSLV)	Improving safety of navigation by establishing maritime emergency search and rescue services on Lake Victoria.	10.2	Kenya, Tanzania, Uganda	3 years	S3: Financial structuring
21. Development of Ports and Maritime Transport on Lake Victoria	Improving navigation safety and modernizing Lake Victoria ports, landing sites and cargo handling facilities.	105.66	Kenya, Tanzania, Uganda	5 years	S1: Project Identification
22. Integrated Aquaculture for Small Scale Farmers and Cage Culture Development in Lake Victoria Basin	Increasing fish production through support to integrated fish farming and cage culture enterprises.	14.50	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S1: Project Identification
23. Sustainable Climate Smart Agriculture in The Lake Victoria Basin	Promoting sustainable land use practices that enhance agricultural production and ensure food security in the face of climate change.	23.73	Burundi, Kenya, Rwanda, Tanzania, Uganda	5 years	S1: Project Identification

TABLE A-2 **LVBC PROJECT PORTFOLIO**

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
24. Strengthening Meteorological Services on Lake Victoria	Improving maritime and meteorological observation network, developing a navigation early warning system, and establishing a centre for meteorological services (CMS) for Lake Victoria.	8.96	Kenya, Tanzania, Uganda	5 years	S3: Financial structuring
THEME 4: INSTITUTIONAL DEVELOPMENT AND CAPACITY STRENGTHENING					
25. Lake Victoria Basin Commission Institutional Capacity Enhancement Program	Strengthening the institutional capacity of the LVBC through staff training, improving data and information collection and knowledge management systems, strengthening stakeholder coordination and harmonizing policies, laws and regulations.	15.37	Burundi, Kenya, Rwanda, Tanzania, Uganda	10 years	S1: Project Identification
26. Construction Of Lake Victoria Basin Secretariat Headquarters	Construction of building to house the LVBC Secretariat	6.27	Burundi, Kenya, Rwanda, Tanzania, Uganda	2 years	S4: Construction
27. Lake Victoria Biodiversity Informatics Phase II (LAVIBI).	Establishment of a functional web-based portal on the biodiversity of the Lake Victoria Basin under the framework of the Lake Victoria Basin Commission.	0.98	Burundi, Kenya, Rwanda, Tanzania, Uganda	3 years	S1: Project Identification
28. Lake Victoria Basin Knowledge Management Project	Strengthening the knowledge management function of LVBC through improving the gathering, storage and sharing of knowledge, and enhancing science – policy dialogue to ensure evidence-based decision making.	2.98	Burundi, Kenya, Rwanda, Tanzania, Uganda	3 years	S1: Project Identification
29. Enhancement of Remote Sensing and Geographic Information System (GIS) Capacity for LVBC Secretariat	Improvement of capacity for remote sensing at LVBC Secretariat through provision of hardware and software and staff training.	0.30	Burundi, Kenya, Rwanda, Tanzania, Uganda	0.5 years	S1: Project Identification

Annex 3: List of IGAD Programmes and Projects

TABLE A-3 IGAD PORTFOLIO OF SELECTED PROGRAMMES AND PROJECTS

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
PROJECTS UNDER THE IGAD SECRETARIAT					
1. Preparation of the IGAD Regional Infrastructure Master Plan (IRIMP)	This project will be used to identify and prioritize infrastructure projects that can contribute to regional integration, intra-regional trade and socio-economic development. Projects will be in the four priority sectors of PIDA (i.e. transport, energy, ICT and transboundary water management).	3.50	Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda	4 years (2017-2020)	Under Implementation
2. Drought Resilience and Sustainable Livelihoods Programme in The Horn of Africa (DRSLP)	This program aims to build the resilience of communities in IGAD to drought and climate change shocks, improve their livelihoods, and promote regional integration in the Horn of Africa. The program was designed and implemented in a series of 5-year projects, with three projects (DRSLP I, II and III) completed so far. The program includes support activities to rebuild existing livelihoods through investment in natural resources (water, pasture) management, integrated land management, and ecosystem restoration and protection, and also investing in agricultural and livestock infrastructure, while improving storage, market and transport infrastructure, such as rural roads.	299.18	Djibouti, Ethiopia, Kenya, Somalia, Sudan	7 years (2012-2018)	Under Implementation
3. IGAD Horn of Africa – Ground Water Initiative (IGAD HOAGWI).)	This project aims to strengthen the knowledge and analytical foundation for sustainable development of groundwater resources and support transboundary cooperation for groundwater management in the Horn of Africa region. Key interventions include capacity building in groundwater management targeting national level institutions for groundwater management and transboundary management as well as the IGAD Water Unit. The project will also promote discussions on the IGAD Regional Water Protocol and organise country exchange visits and study tours.	2.70	Djibouti, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda	3 years	Under implementation (2019-2021)
4. Assessment of the Fisheries Resource Base and its Contribution to Food Security and Development of Management Plans for Three River Basins (Baro-Akobo, Omo-Turkana, and Shebelle-Genale) in the IGAD	This assessment culminated in the production of a Baseline Report, a Value Chain Analysis Report, and a Fisheries Management Plan of the fisheries for each of the three river basins of Baro-Akobo, Omo-Turkana, and Shebelle-Genale. The Baseline Report, which was validated by stakeholders from the riparian countries in 2019, is meant to provide a framework for harnessing the fisheries potential and to foster sustainable utilisation and exploitation of the fisheries resources for improved livelihoods, food security and nutrition, and incomes of members of the communities in the Arid and Semi-Arid Lands (ASALs) that these three rivers traverse.		Ethiopia, Kenya, Sudan, Somalia.	0.5 years	Study completed
5. The Inland Water Resources Management Programme (INWRMP)	The INWRMP focused on strengthening and consolidating the institutional basis and operations of IGAD with respect to transboundary water management. The Programme had four key result areas, namely: (a) establishing and institutionalizing regional cooperation through the development and operation of a water platform; (b) improving national and regional frameworks for water resources management; (c) strengthening regional and national institutions for water resources management; and (d) strengthening regional water resources monitoring and information systems. One of the key outputs of the INWRM Programme was the development and adoption of a regional water resources management policy, and preparation of a draft Regional Water Resources Management Protocol.	12.35	Djibouti, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda	3 years	Completed (2013-2015)
6. Strengthening	This project has selected the Sio-Malaba-		Kenya,	3 years	Ongoing

TABLE A-3 IGAD PORTFOLIO OF SELECTED PROGRAMMES AND PROJECTS

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
Transboundary Water Governance and Cooperation in the IGAD Region.	Malakisi River Basin to pilot the IUCN's Building River Dialogue and Governance (BRIDGE) approach to strengthening transboundary water governance. The project fostering dialogue among riparian communities around benefits enhancement through cooperation, combined with the approach described in the UNECE's Policy Guidance Note on Identifying, Assessing and Communicating Benefits of Transboundary water Cooperation. Under the project, the portfolio of investment projects prepared under NELSAP's SMM Project have been discussed and prioritized by stakeholders from Kenya and Uganda, and an action plan for mobilization of resources for implementation of the projects have been prepared by the riparians.		Uganda		
PROJECTS UNDER THE IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)					
7. Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED)	PREPARED is a USAID funded five-year program (2013-2017) with the overall objective of strengthening the resilience and sustainability of East African economies, transboundary freshwater ecosystems, and communities. The Program is composed of 3 key components: Climate Change Adaptation (CCA); Biodiversity Conservation, and Water Supply, Sanitation and Hygiene (WASH).	40.00	Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda + Burundi and Rwanda	5 years	Under Implementation
8. Strengthening the Capacity of the Inter-Governmental Authority on Development (IGAD) in Building Resilience in the Horn of Africa Programme.	This project aims to achieve sustainable development in the Horn of Africa (HoA) by developing disaster resilience, underpinned by robust preparedness and response capacity at all levels of IGAD. Key result areas include strengthening capacity of the IGAD Secretariat and ICPAC to plan, implement and coordinate disaster emergency and conflict prevention activities in the HoA; preparation of disaster risk management knowledge products; and strengthening national coordination mechanisms of Member States for disaster resilience.	18.33	Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda + Rwanda	5 years	Under Implementation
9. Land Degradation Monitoring, Natural Habitat Conservation, and Forest Monitoring Services under Monitoring for Environment and Security in Africa.	The goal of this project is to increase information management capacity of IGAD regional and national institutions and facilitate sustainable access to Africa-wide environmental information derived from earth observation technologies. The specific objective is to enhance the assessment and monitoring of land degradation, natural habitats and forest resources for sustainable land management.	2.67	Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda + Burundi and Rwanda		Under Implementation
10. Capacity Development in Geospatial Technology for Disaster Risk Reduction in the Horn of Africa (IGAD-UNOSAT).	The project was aimed at improving the capacity of IGAD staff in the use of GIS for Disaster Risk Reduction (DRR) and implementing an IGAD DRR Geoportal at ICPAC. A second phase of the project was used to strengthen the capacity and awareness of IGAD member states in the use of geospatial technologies for the Disaster Risk Reduction.		Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda + Burundi and Rwanda	3 years	Completed.
PROJECTS UNDER THE IGAD CENTRE FOR PASTORAL AREAS AND LIVESTOCK DEVELOPMENT (ICPALD)					
11. Management of Flood Disaster and the Rational Joint Utilization of The Dauwa (Daua) River Waters	This investment planning project has three main intervention areas namely, (1) coordination and enhancement of investments in and around Daua River Basin; (2) development and validation of strategies for conflict, flood and drought management and integrated early warning and ; (3) integration of disaster risk reduction principles in the management of Daua River Basin by local communities and national authorities in Ethiopia, Kenya and Somalia.		Ethiopia, Kenya, Somalia	2 years	Ongoing
12. Regional Pastoral Livelihoods Resilience Project (RPLRP).	The project aims to enhance livelihood resilience of pastoral and agro-pastoral communities in cross-border drought prone areas of Ethiopia, Kenya and Uganda and improve their capacity to respond promptly and effectively to climate	197.00	Ethiopia, Kenya, Uganda	5 years	Ongoing

TABLE A-3	IGAD PORTFOLIO OF SELECTED PROGRAMMES AND PROJECTS				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
	related crisis or emergency.				
13. IGAD-FAO Partnership Programme on Drought Resilience	The project which contributes to implementation of the IDDRSI strategy seeks to enhance resilience to drought of selected cross-border communities resulting in improved food and nutrition security of communities and households in aris and semi-arid lands. Interventions include enhancing trade opportunities, improving access to natural resources, and increasing productive capacity of cross-border communities		Ethiopia, Kenya, Somalia	5 years	Ongoing
14. Strengthening Coordination and Implementation of IDDRSI (SCII)	This programme seeks to consolidate work under IDDRSI Phase I projects in the promotion and coordination of resilience-building activities in the IGAD region by (1) mainstreaming CPP elements in the National Development Plan, and improving coordination and governance of CPPs at national and sub-national levels; (b) scaling up resilience-enhancing technologies and innovations in cross-border areas; (c) gender mainstreaming, capacity development and strengthening partnerships; capacity development will focus on Member States M&E strengthening and staff support to IGAD; (d) improving the IGAD's capacity to monitor, analyse and evaluate the process of attaining resilience-enhancement.		Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda		Ongoing

Annex 4: List of Selected COMESA-Coordinated Projects

TABLE A-4	PORTFOLIO OF SELECTED COMESA PROJECTS				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
POWER GENERATION					
1. Beni Suef, Burullus and New Capital (Natural Gas) Power Generation Project	Construction of three combined-cycle power plants, each with a generation capacity of 4,800 MW.	9,300.00	Egypt	4 years (2015-2018)	Completed
2. Gabal El-Zeit Wind Farm Project	This wind farm in the Gulf of Zeit is the biggest wind complex in MENA region with total installed capacity of 580 MW and about 3 TWh in three years' production. The project consisted of 3 phases, namely Gulf of Zeit 1, Gulf of Zeit 2 and Gulf of Zeit 3 with installed capacity of 240MW, 220MW and 120 MW respectively. The objectives of the project include increasing the amount of clean energy in the Egyptian national grid; reducing the fossil fuel consumption and; reducing Greenhouse gases emission.		Egypt	4 years (2015-2018)	Under Implementation
3. Gibe III Dam Project	The Gilgel Gibe III Dam is a 250 m high roller-compacted concrete dam with an associated hydroelectric power plant on the Omo River in Ethiopia. It is located about 62 km west of Sodo and has a power output of about 1,870 Megawatt (MW). The Gibe III dam is part of the Gibe cascade, a series of dams including the existing Gibe I dam (184 MW) and Gibe II power station (420 MW) as well as the planned Gibe IV (1472 MW) and Gibe V (560 MW) dams. The existing	1,800.00	Ethiopia	10 years (2006-2016)	Completed

TABLE A-4	PORTFOLIO OF SELECTED COMESA PROJECTS				
Project	**Brief Description**	**Est. cost (US$ million)**	**Countries**	**Duration**	**Status**
	dams including Gibe III are owned and operated by the state-owned Ethiopian Electric Power Corporation.				
4. Grand Ethiopian Renaissance Dam (GERD)	The GERD is a 155 m height gravity roller-compacted concrete dam located on the Blue Nile River in Ethiopia about 15 km east of the Ethiopia-Sudan Border. Filling of the reservoir, which has a storage capacity of 74,000 MCM, commenced in 2020 and is expected to be completed in 5 to 15 years depending on hydrological conditions during the filling period. The primary purpose of the dam is electricity production to relieve Ethiopia's acute energy shortage and for electricity export to neighboring countries. Once completed, the GERD, which has an installed capacity of 6,000 MW, will be the largest hydropower plant in Africa, and the seventh largest in the world.	8,000.00	Ethiopia	12 years (2011-2022)	S4B: Construction
5. 54 MW Bangweulu Solar Park Project	The Bangweulu Solar Park, which is located in the Lusaka South Multi-Facility Economic Zone, is aimed at helping the country diversify its energy mix that's overly dependent on hydroelectric power. The 54 MW Bangweulu Solar Park was commissioned by the African country's President Edgar Chagwa Lungu on March 11, 2019, and will be selling power at 7 USc/kWh.	60.00	Zambia	3 years (2016-2019)	Completed
6. Batoka Gorge Hydropower Project	The proposed Batoka Gorge Hydroelectric Power Station is a 2,400 MW hydroelectric power station, planned to be built on the Zambezi River across the International border between Zambia and Zimbabwe. The project site is located approximately 54 km downstream of Victoria Falls. The project, which is being implemented by the Zambezi River Authority, comprises of a 181 m height arch gravity dam that will create a reservoir with storage capacity of 1,680 MCM, and two power plants, one on the Zambian side and another on the Zimbabwean side, each with an installed capacity of 1,200 MW.	5,000.00	Zambia, Zimbabwe	10 years	S2B: Feasibility ongoing.
7. Ruzizi III Hydropower Project	The Ruzizi III is a 147 MW run-of-river hydropower project being developed on the Ruzizi River that flows along the borders of the DR Congo, Burundi, and Rwanda. The new plant will be located downstream of the existing Ruzizi I and Ruzizi II hydropower plants. The project will involve the construction of a 120m-long diversion dam, a 7 km headrace tunnel with a head height of 110 m, a 220 kV switchyard, and a 10 km transmission line to the Kamanyola substation in the DRC. The reservoir will have a storage capacity of 1.9 MCM. The project is being developed as a public-private partnership (PPP) between the three countries, a consortium of Industrial Promotion Services (IPS) and SN Power through a 25-year concession agreement. The consortium will develop the plant under build, own, operate and transfer (BOOT) basis and will run the plant as an independent power producer. Coordination of the three countries participation is through CEPGL's energy affiliate Energie des Grands Lacs (EGL).	650.00	Burundi, DR Congo, Rwanda	8 Years (2019-2026)	S3B: Transaction Support & Financial Close
8. Coal Power Plant at Kwasasi, Lamu County	The Lamu coal power plant is a 1,050 MW thermal power project proposed to be built near the coastal town of Lamu. will be the first coal-fired power facility in Kenya. When built, the plant will be the first coal-fired power facility in Kenya, and the biggest independent power producer (IPP) project in East and Central Africa region. The Lamu power plant is planned to be developed on a build, operate and transfer (BOT) basis by Amu Power Company (APCL).	2,000.00	Kenya	7 years	S4A: Tendering completed; awaiting construction.
9. Kafue Gorge Lower (KGL) Hydropower Station	The Kafue Gorge Lower (KGL) hydroelectric power station is a 750 MW power plant that is being constructed on the Kafue River 90 km away from the Lusaka. The project includes the construction of a 139 m-high concrete-face rockfill dam = with a crest length of approximately 378m. A surface powerhouse housing five 150 MW generator units will also be constructed.	2,000.00	Zambia	5 Years (2015-2020)	S4B: Construction

TABLE A-4 **PORTFOLIO OF SELECTED COMESA PROJECTS**

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
	Construction commenced in 2015 and is expected to be completed in 2020.				
10. Inga Hydro Phase 1	The Grand Inga Dam, located in western DR Congo on the Congo River, is the world's largest proposed hydropower scheme. Grand Inga could produce up to 40,000 MW of electricity, more than a third of the total electricity produced in Africa. The Grand Inga dam will be constructed in 6 phases. Inga I (351 MW) and Inga II (1,424 MW) were commissioned in 1972 and 1982 respectively. Inga III (4,200 MW) is currently in the feasibility and design phase.	6,000.00	DR Congo	10 years	S2B: Feasibility and design studies ongoing.
11. Kabulasoke Solar PV	The Kabulasoke Solar Power Station is a 20 MW solar power plant in Central Uganda. The project was developed as a public private partnership between a private firm (Xsabo Group) and the Gomba District Local Government.		Uganda	1year (2018)	S4C: Operation
POWER TRANSMISSION AND INTERCONNECTION					
12. Mbeya (Tanzania) to Kabwe (Zambia) Power Interconnection Project - NELSAP	Construction of a 1,322 km 330/400 kV transmission line connecting Mbeya in Tanzania to Kasama and Kabwe in Zambia. The project also involves construction of 9 substations.	574.00	Tanzania	5 years	Feasibility studies completed in 2017; detailed designs and tender documents prepared.
13. Tanzania-Zambia Transmission Interconnector Project	This is the Tanzania section of the Zambia-Tanzania-Kenya (ZTK) Interconnector. The Project, which is under implementation, includes construction of approximately 620 km of 400 kV double circuit transmission lines, starting in Iringa through Kisada and Mbeya to Tunduma and continuing from Tunduma to Sumbawanga to link the Tanzanian North-West Grid to the interconnector with Zambia.	465.00	Tanzania	7 years (2018-2024)	S4B: Construction
14. ZTK Transmission Interconnector (Zambia section)	The Zambia Section of the ZTK interconnector Project involves the construction of 905 km of transmission lines in two phases, with the first phase being the Kabwe-Pensulo—Kasama-Nakonde power line, and the second phase being the Kabwe-Pensulo-Mpika-Kasama power line. The contract for construction of phase 1 has been awarded	300.00	Zambia	4 years (2019-2022)	S4B: Constrcution
13. Isinya (Kenya) to Arusha (Tanzania) Power Interconnection Project - NELSAP	The Kenya-Tanzania interconnection project involves the construction of a total of 507.5 km of 400 Kv high voltage alternative current (HVAC) transmission line in double circuit from Isinya Substation in Kenya to Singida Substation in Tanzania. 93.1 km of the line is in Kenya and 414.5 km in Tanzania. The transfer capacity of the interconnector is designed for 2,400 MW. The associated substation works include: the extension of the existing Isinya (Kenya) and Iringa (Tanzania) substations to include 400 kV transformers, and the construction of a new 400kV substation in Arusha (Tanzania). Feasibility and detailed designed studies were completed with support from NELSAP. The project is under implementation. The proposed interconnection line will be connected to the Ethiopia-Kenya transmission system through the Isinya – Suswa 400 kV line, and thus will be the major link for power transfer between the Eastern Africa Power Pool and countries in the North such as Sudan and Egypt.	109.70	Kenya, Tanzania	9 years (2015-2024)	S4B: Construction
9. Ethiopia-Kenya Power Interconnection Project	This is a 500kv High Voltage Direct Current (HVDC), 1,045 km line connecting the Kenyan and Ethiopian power grids, with 612 km of the power line on the Kenyan side and 433 km on the Ethiopian side. Construction was completed in 2019. Testing is ongoing	1,260.00	Ethiopia, Kenya	5 years (2015-2020)	S4C: Construction
10. Uganda-Kenya Interconnector (260km). NELSAP	This is the Bujagali–Tororo–Lessos High Voltage Power Line that is under construction. The project will connect the high voltage substation at Bujagali, in Uganda to another high voltage	240.00	Kenya, Uganda	5 years (2015-2020)	S4C: Construction

TABLE A-4 **PORTFOLIO OF SELECTED COMESA PROJECTS**

Project	Brief Description	Est. cost (US$ million)	Countries	Duration	Status
	substation at Lessos, in Kenya – a total distance of 260 km. The power line starts at Bujagali Hydroelectric Power Station, as a 220kV high voltage power line and travels to the town of Tororo close to the Kenya-Uganda border. At Tororo, the voltage is stepped up to 400kV, and the line travels in that state, through the town of Eldoret, to Lessos, in Nandi County, Western Kenya.				
10. Uganda-Rwanda Interconnector (172 km). NELSAP	This project involves the construction of a 172 km 220 kV double circuit power line from Mbarara to Mirama Hills on the Uganda-Rwanda border, and on to Birembo through Shango in Rwanda. The project also involves construction of 4 substations, two each in Uganda and Rwanda.		Rwanda, Uganda		S4C: Operation
10. Rwanda-Burundi Interconnector (143 km). NELSAP	Construction of a 143 km 220 kV transmission line connecting Kigoma in Rwanda to Gitega in Burundi.	50.00	Burundi, Rwanda	7 years (2013-2020)	S4C: Operation
10. Rwanda-Burundi-DR Congo Interconnector (371 km). NELSAP	This project has various segments which are at various stages of implementation and expected to be completed in 2020. The project includes the Birembo-Shango-Gisenyi-Kibuye overhead transmission lines (OHTL), the Bujumbura-Kamanyola OHTL and Goma-Buhandahanda OHTL.		Burundi, DR Congo, Rwanda	5 years	S4B: Construction.

Annex 5: Priority Power Generation and Interconnection Projects in the EAPP Master Plan

Table A-5.1: Priority regional power generation projects

COUNTRY	PLANT NAME	TYPE	INSTALLED CAPACITY (MW)	COMMISSION DATE
DR Congo	Ruzizi III	Hydro	125	2014
	Ruzizi II	Hydro	287	2027
Ethiopia	Mandaya	Hydro	2000	2031
	Gibe III	Hydro	1870	2013
	Gibe IV	Hydro	1468	2016
	Karadobi	Hydro	1600	2036
Rwanda	Kivu I	Methane	100	2013
	Kivu II	Methane	200	2033
Tanzania	Stiegler's Gorge (I, II, III)	Hydro	1200	2020; 2023; 2026
Uganda	Karuma	Hydro	700	2016
	Ayago	Hydro	550	2023
	Murchison Falls	Hydro	750	2032

Table A-5.2: Priority regional power interconnection projects

INTERCONNECTOR	CAPACITY (MW)	TYPE	LENGTH (km)	COST (US$ mil)	COMMISSION DATE
Sudan – Ethiopia	1,600	AC, 500 kV	550	373	2020
Egypt – Sudan	500	AC, 500 kV	775	233	2020
Rwanda – Tanzania	200	AC, 220 kV	115	30	2020
Uganda – South Sudan	600	AC, 400 kV	200	77	2020
Libya – Egypt	200	AC, 220 kV	163	38	2020
Kenya - Uganda	300	AC, 400/220 kV	254	44	2020
Egypt – Sudan	1,000	AC, 500 kV	775	466	2025
Rwanda – Tanzania	1,000	AC, 220 kV	115	149	2025
Kenya – Uganda	600	AC, 400/220 kV	254	100	2025
Rwanda – DRC	300	AC, 220 kV	46	99	2025
DRC – Uganda	500	AC, 220 kV	352	115	2025
Sudan – South Sudan	300	AC, 220 kV	400	163	2025
Total by 2025	**6,1000**		**2,855**	**1,580**	**2025**

Annex 6: Selected PIDA-PAP 1 Projects

Table A-6.1 PIDA PAP—Energy Sector Projects (selected projects[4])

Project	Description	Stage	Cost (US$ million)	Countries	REC	Region
1. Great Millennium Renaissance Dam	Develop a 5,250 MW plant to supply domestic market and export electricity on EAPP market	S4	8,000	Ethiopia, Nile basin	COMESA/ IGAD	Eastern
2. North–South Power Transmission Corridor	8,000 km line from Egypt through Sudan, South Sudan, Ethiopia, Kenya, Malawi, Mozambique, Zambia, Zimbabwe to South Africa	S2	6,000	Kenya, Ethiopia, Tanzania, Malawi, Mozambique, Zambia, Zimbabwe, South Africa	COMESA/EAC/ SADC/IGAD	Southern
3. Inga III Hydro	4,200 MW capacity run of river hydropower station on the Congo river with eight turbines	S2	6,000	DRC Congo River	ECCAS	Central
4. Ruzizi III	Hydroelectric plant with a capacity of 145 MW to share power among Rwanda, Burundi and DRC promoted by CEPGL	S3	450	Rwanda/DRC	COMESA/EAC	Eastern
5. Rusumo Falls	Hydropower production of 61 MW for Burundi, Rwanda and Tanzania	S3	360	Nile River Basin	COMESA/EAC	Eastern
6. Uganda-Kenya Petroleum Products Pipeline	300 km long pipeline for a lower cost mode of transport of petroleum products	S4	150	Uganda, Kenya	COMESA/EAC	Eastern

S1 – Project definition; S2A – Pre-feasibility; S2B- Feasibility; S3A – Project structing; S3B – Transaction support and financial closure; S4A – Tendering; S4B – Construction; S4C – Operation.

Table A-6.2 PIDA PAP—Transport Sector (selected projects[1])

Project	Description	Stage	Cost (US$ million)	Countries	REC	Region
1. Northern Multimodal Corridor	This programme is designed to modernize the highest priority multimodal ARTIN corridor on modern standards (climbing lanes and urban bypasses) in East Africa. This programme aims to facilitate travel by people and goods across the borders between Kenya, Uganda, Rwanda, Burundi and DRC with a spur to South Sudan	S3/S4	1,000	Kenya, Uganda,	COMESA/EAC	Eastern
2. Djibouti-Addis Corridor	This programme would resuscitate the rail system in a high priority multimodal ARTIN corridor in Eastern Africa and increase the flow of goods across the border between Djibouti and Ethiopia. It would also design and implement a smart corridor system for both road and rail transport	S3/S4	1,000	Djibouti, Ethiopia	COMESA/IGAD	Eastern
3. Central Corridor	This programme would modernize the third priority ARTIN corridor in East Africa and facilitate travel for people and goods across the borders between Tanzania, Uganda, Rwanda, Burundi and DRC	S3/S4	840	Tanzania, Uganda, Rwanda, Burundi, DRC	COMESA/EAC	Eastern
4. Lamu Gateway	This programme aims at	S3/S4	5,900	Kenya,	COMESA/SADC/	S3/S4

[4] Only projects that lie within the Nile Basin, or are relevant to the NBI mandate, are listed.

Development	responding to the Eastern Africa challenge in developing sufficient port capacity to handle future demand from both domestic sources and landlocked countries. The priority action will be to develop the Lamu gateway	Uganda, Rwanda, Burundi

S1 – Project definition; S2A – Pre-feasibility; S2B- Feasibility; S3A – Project structing; S3B – Transaction support and financial closure; S4A – Tendering; S4B – Construction; S4C – Operation.

Table A-6.3 **PIDA PAP— Transboundary Water Resources Sector**

Project	Description	Stage	Cost (US$ million)	Countries	REC	Region
1. Palambo	Regulation dam to improve navigability of Obangui River with added hydropower component	S2	155	Congo River Basin	ECCAS	Central
2. Fomi	Hydropower station in Guinea with irrigation water supply for Mali and regulation of the Niger river (nine countries)	S3	384	Niger River Basin	ECOWAS	Western
3. Multisectoral Investment Opportunity Studies	Identification and preparation of investment programmes in the basin	S1	1	Okavango River Basin	SADC	Southern
4. Lesotho HWP Phase II – water transfer component	Water transfer programme supplying water to Gauteng Province in South Africa	S3	1,100	Orange-Senqu River Basin	SADC	Southern
5. Gourbassy	Multipurpose dam located in Guinea: regulation of the Senegal river (four countries)	S2	NA	Senegal River Basin	ECOWAS	Western
6. Noumbiel	Multipurpose dam with hydropower generation (for Burkina Faso and Ghana) component	S1/S2	NA	Volta River Basin	ECOWAS	Western
7. Nubian Sandstone Aquifer System	Implementation of regional strategy for the use of the aquifer system	S4	5	Nubian Sandstone Aquifer System	UMA	Northern
8. North-West Sahara Aquifer System	Prefeasibility studies for improved use of the aquifer system	S2	2.5	North West Sahara Aquifer System	UMA	Northern
9. Lullemeden Aquifer System	Prefeasibility studies for improved use of the aquifer system	S2	10	Lullemeden and Taoudeni/Tanezrouft Aquifer System	UMA	Northern

S1 – Project definition; S2A – Pre-feasibility; S2B- Feasibility; S3A – Project structing; S3B – Transaction support and financial closure; S4A – Tendering; S4B – Construction; S4C – Operation.

Annex 7: Selected PIDA-PAP 2 Projects

Table A-7.1	PIDA PAP 2—Transboundary Water Resources Sector					
Project	**Stage**	**Prep. cost (US$ million)**	**CAPEX (US$ million)**	**Countries**	**REC**	**Status**
1. Fomi Multi-purpose Dam (Niger River Basin)	RS3B: Transaction Support & Financial Close	7.50	0.00	Guinea	ECOWAS-CEDEAO	Active
2. Koukoutamba (ex-Gourbassy) Multi-purpose Dam	S3A: Project Structuring	15.00	298.00	Mali, Senegal	ECOWAS-CEDEAO	Active
3. Lesotho Highlands Water Project (LHWP) Phase II	S4B: Construction	0.00	0.00	Lesotho	SADC	Active
4. Iullemeden Aquifer System	S2A: Pre-Feasibility	0.00	9.20	Mali, Niger, Nigeria	ECOWAS-CEDEAO	Active
5. Okavango Basin Multi-Sector Investment Opportunity Studies	S4C: Operation	0.60	0.50	Angola, Botswana, Namibia	SADC	Active
6. North-West Sahara Aquifer System (NWSAS)	S3A: Project Structuring	9.20	0.00	Algeria, Libya, Tunisia	UMA-AMU	Active
7. Noumbiel Multi-purpose Dam	S2B: Feasibility	0.00	0.00	Burkina Faso, Ghana	ECOWAS-CEDEAO	Active
8. Nubian Sandstone Aquifer System	S4A: Tendering	5.00	0.00	Chad, Egypt, Libya, Sudan	IGAD,UMA-AMU	Active
9. Palambo Multi-purpose Dam	S2A: Pre-Feasibility of regulation dam to improve navigability of Obangui River with added hydropower component	0.00	0.00	Central African Republic, Democratic Republic of Congo	CEEAC-ECCAS	Active

Table A-7.2	PIDA PAP 2—Energy Sector[1]					
Project	**Stage**	**Prep. cost (US$ million)**	**CAPEX (US$ million)**	**Countries**	**REC**	**Status**
1. Grand Ethiopian Renaissance Dam (GERD)	S4B: Construction	0.00	8,000.00	Ethiopia	COMESA,IGAD	Active
2. Egypt - Sudan Transmission Interconnector (Egypt section)	S2A: Pre-Feasibility	61.00	568.00	Egypt	COMESA	Active
3. Egypt - Sudan Transmission Interconnector (Sudan section)	S2A: Pre-Feasibility	0.00	120.00	Sudan	COMESA	Active
4. Ethiopia - Sudan Transmission Interconnector (Ethiopia section)	S3A: Project Structuring	186.00	1860.00	Ethiopia	COMESA, IGAD	Active
5. Ethiopia - Sudan Transmission Interconnector (Sudan section)	S3A: Project Structuring	0.00	481.10	Sudan	COMESA, IGAD	Active
6. Tanzania-Malawi Transmission Interconnector (Tanzania section)	S1: Project Definition	0.00	0.00	Tanzania	EAC	Active
7. ZTK Transmission Interconnector (Kenya section)	S4B: Construction	12.00	50.00	Kenya	COMESA, EAC	Active
8. ZTK Transmission Interconnector (Tanzania section - Iringa to Shinyanga)	S4C: Operation	24.00	242.00	Tanzania	EAC, SADC, COMESA	Active
9. ZTK Transmission Interconnector (Tanzania section - Iringa to Tunduma)	S4A: Tendering	24.00	242.00	Tanzania	EAC, SADC, COMESA	Active
10. ZTK Transmission Interconnector (Tanzania section - Singida to Namanga)	S4B: Construction	24.00	258.82	Tanzania	EAC, SADC, COMESA	Active
11. ZTK Transmission Interconnector (Zambia section)	S2B: Feasibility	5.00	300.00	Zambia	COMESA, SADC	Active
12. Regional Rusumo Falls	S4B: Construction	7.72	461.00	Rwanda,	EAC	Active

Hydroelectric Power Project II				Tanzania		
13. Ruzizi III Hydropower Plant	S3B: Transaction Support & Financial Close	31.00	6.24	Democratic Republic of Congo, Rwanda	EAC	Active
14. Kenya-Uganda Petroleum Products Pipeline (Kenya section)	S3B: Transaction Support & Financial Close	0.00	0.00	Kenya	EAC	Active
15. Kenya-Uganda Petroleum Products Pipeline (Uganda section)	S1: Project Definition	0.00	0.00	Uganda	EAC	Active

Table A-7.3 **PIDA PAP 2—Transport Sector[1]**

Project	Stage	Prep. cost (US$ million)	CAPEX (US$ million)	Countries	REC	Status
1. Bujumbura - Bugarama Road	S2B: Feasibility	11.00	105.00	Burundi	EAC	Active
2. Bujumbura - Rumonge (RN3) Road Section	S3B: Transaction Support & Financial Close	0.00	0.00	Burundi	EAC	Active
3. Chaya-Manyoni Road	S4B: Construction	0.00	0.00	Tanzania	EAC	Active
4. Dar es Salaam - Chalinze - Morogoro Road Capacity Upgrade	S4B: Construction	4.81	948.00	Tanzania	EAC	Active
5. Dar es Salaam - Isaka - Mwanza Standard Gauge Railway	S4B: Construction	40.00	2450.00	Tanzania	EAC	Active
6. Dar es Salaam New Berths Vijibweni, Mbwamaji and Kunduchi	S1: Project Definition	50.00	500.00	Tanzania	EAC	Active
7. Dar es Salaam New Container Terminal	S3B: Transaction Support & Financial Close	63.00	628.00	Tanzania	EAC	Active
8. Dar es Salaam New SPM Oil Terminal	S4C: Operation	0.00	0.00	Tanzania	EAC	Completed
9. Dar es Salaam Port Access Roads Development	S4C: Operation	0.00	0.00	Tanzania	EAC	Active
10. Dar es Salaam Port Modernisation	S4B: Construction	21.00	214.00	Tanzania	EAC	Active
11. DSM-Manyoni-Isaka Road	S3A: Project Structuring	0.00	0.00	Tanzania	EAC	Active
12. Gatumba/ Kavimvira OSBP	S1: Project Definition	0.00	0.00	Burundi, DR Congo	EAC	Active
13. Gitega - Karuzi - Muyinga (RN12) Road	S2B: Feasibility	3.00	312.00	Burundi	EAC	Active
14. Isaka - Kigali Standard Gauge Railway	S4A: Tendering	40.00	2450.00	Tanzania	EAC	Active
15. Isaka-Lusahunga Road	S4B: Construction	0.00	0.00	Tanzania	EAC	Active
16. Kabanga/ Kobero OSBP	S4C: Operation	0.00	0.00	Burundi, Tanzania	EAC	Active
17. Kasulu-Kibondo Nyakanazi Road	S3B: Transaction Support & Financial Close	0.00	0.00	Tanzania	EAC	Active
18. Kayanza - Bugarama Road	S1: Project Definition	0.00	177.00	Burundi	EAC	Active
19. Kidahwe-Kanazi-Kasulu Road	S4B: Construction	0.00	0.00	Tanzania	EAC	Active
20. -Uvinza Road	S4C: Operation	0.00	0.00	Tanzania	EAC	Active
21. Kigali - Ngoma Road	S4C: Operation	0.00	0.00	Rwanda	EAC	Active
22. Kigoma Port Access Roads	S2A: Pre-Feasibility			Tanzania	EAC	Active
23. Kigoma-Kidahwe Road	S4C: Operation	0.00	0.00	Tanzania	EAC	Completed
24. Kobero - Muyinga Road	S3A: Project Structuring	8.40	84.00	Burundi	EAC	Active
25. Lusahunga-Rusumo Road	S3B: Transaction Support & Financial Close	7.00	73.00	Tanzania	EAC	Active
26. Malagarasi Bridge and Approach Roads	S4C: Operation	0.00	0.00	Tanzania	EAC	Active
27. Mpanda - Kanazi Road	S4B: Construction	0.00	0.00	Tanzania	EAC	Active
28.Mpanda-Kasulu-Nyakanazi and Kasulu-Kigoma Roads	S4B: Construction	40.00	404.00	Tanzania	EAC	Active
29. Mutukula OSBP	S4C: Operation	0.00	14.51	Tanzania, Uganda	EAC	Active
30. Nyahua-Chaya, Urambo-Kaliua,	17.00	171.00	Tanzania	EAC	Active	Active

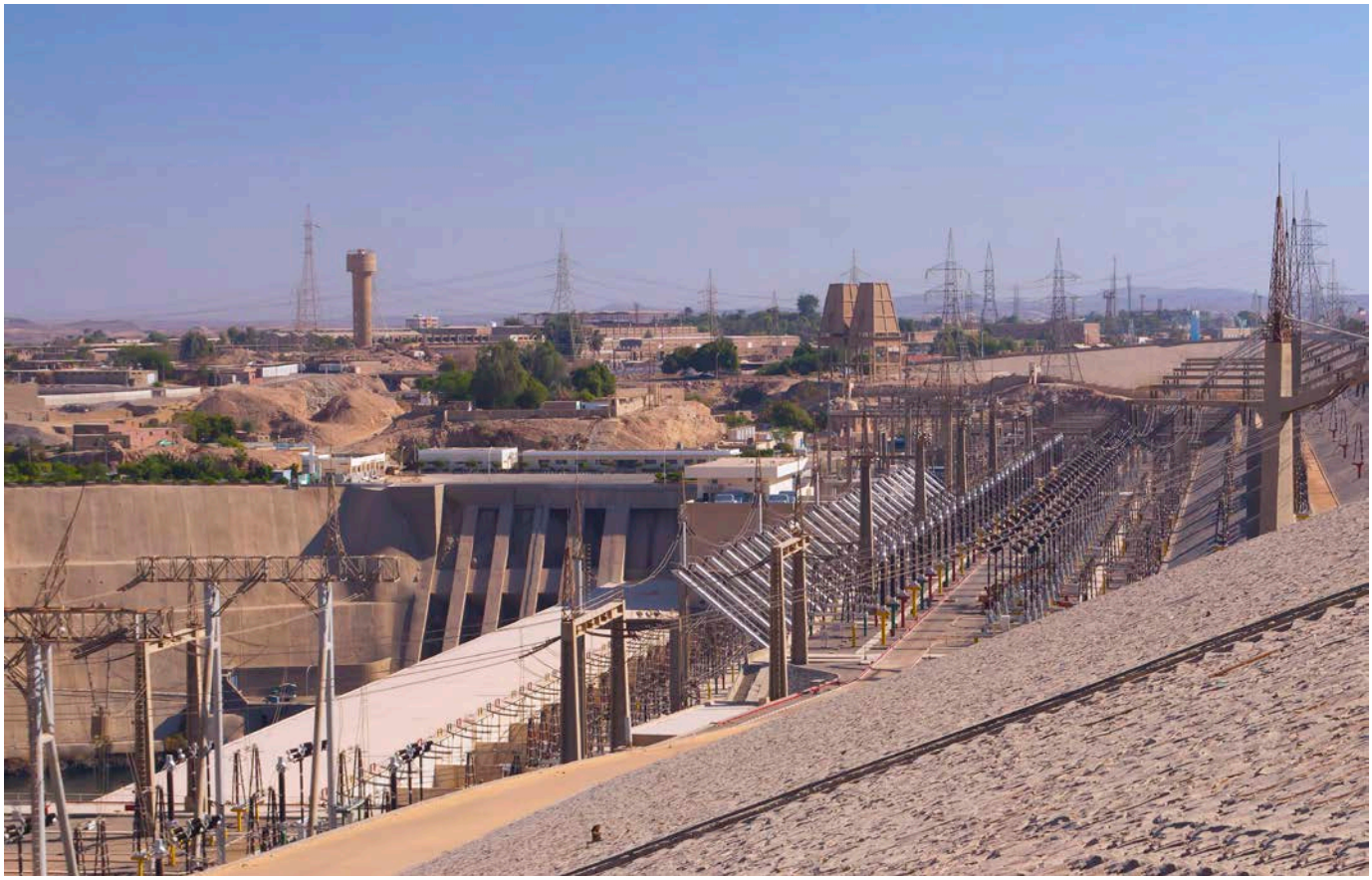
Table A-7.3	PIDA PAP 2—Transport Sector[1]					
Project	**Stage**	**Prep. cost (US$ million)**	**CAPEX (US$ million)**	**Countries**	**REC**	**Status**
Kazirambwa-Chagu and Malagarasi-Uvinza Roads						
31. Nyakarara - Mwaro - Mweya -Gitega (RN18) Road Upgrade	S4B: Construction	0.00	50.00	Burundi	EAC	Active
32. Nyanza Lac-Mugina (RN3) Road	S4C: Operation	0.00	0.00	Burundi	EAC	Active
34. Nzega-Tabora Road	S4C: Operation	0.00	0.00	Tanzania	EAC	Active
35. Rumonge-Nyanza Lac Road	S3A: Project Structuring	0.00	0.00	Burundi	EAC	Active
36. Rusumo OSBP	S4C: Operation	37.20	0.00	Rwanda, Tanzania	EAC	Completed
37. Tabora-Nyahua Road	S4C: Operation	6.00	58.00	Tanzania	EAC	Completed
38. Urambo-Tabora Road	S4C: Operation	0.00	0.00	Tanzania	EAC	Active
39. Berbera-Hargeisa-Kalabayd-Togowuchale Road	S2B: Feasibility	0.00	0.00	Somalia	IGAD	Active
40. Djibouti Port Truck Staging Area	TBC: Data Not Available			Djibouti	COMESA	Active
41. Dobi - Galafi Road	S4C: Operation	0.00	0.00	Ethiopia	COMESA	Completed
42. Galafi - Yakobi Road	TBC: Data Not Available			Djibouti	COMESA	Active
43. Galafi OSBP	S4B: Construction	0.00	0.00	Djibouti, Ethiopia	COMESA	Active
44. Modjo Dry Port	S4C: Operation	0.00	0.00	Ethiopia	COMESA	Completed
45. Semera Dry Port	S4C: Operation	0.00	0.00	Ethiopia	COMESA	Completed
46. Grand Ethiopian Renaissance Dam (GERD)	S4B: Construction	0.00	0.00	Ethiopia	COMESA, IGAD	Active
47. Inga 3 Hydropower Plant	S3B: Transaction Support & Financial Close	423.00	18000.00	Democratic Republic of Congo	SADC	Active
48. Brazzaville-Kinshasa Road/Rail Bridge	S4A: Tendering	5.00	459.00	Democratic Republic of Congo, Republic of Congo	COMESA, CEEAC-ECCAS, SADC	Active
49. Eldoret - Nadapal Road	S4B: Construction	68.00	683.00	Kenya	IGAD	Active
50. Garissa - Isiolo Highway	S3B: Transaction Support & Financial Close	0.00	0.00	Kenya	EAC	Active
51. Isiolo - Lokichar - Lodwar - Nadapal Highway	S2A: Pre-Feasibility	0.00	0.00	Kenya	EAC	Active
52. Juba-Torit-Kapoeta-Nadapal Road	S3A: Project Structuring	40.00	420.00	South Sudan	IGAD	Active
53. Lamu - Garissa Highway	S4B: Construction	0.00	0.00	Kenya	EAC	Active
54. Master Plan for Regional Port Capacity and Regional Rail Linkages (including Lamu Port) (Phase 1)	S3A: Project Structuring	5.10	0.00	Kenya	EAC	Active
55. Egypt - Sudan Transmission Interconnector (Egypt section)	S2A: Pre-Feasibility	61.00	568.00	Egypt	COMESA	Active
56. Egypt - Sudan Transmission Interconnector (Sudan section)	S2A: Pre-Feasibility	0.00	120.00	Sudan	COMESA	Active
57. Ethiopia - Sudan Transmission Interconnector (Ethiopia section)	S3A: Project Structuring	186.00	1860.00	Ethiopia	COMESA, IGAD	Active
58. Ethiopia - Sudan Transmission Interconnector (Sudan section)	S3A: Project Structuring	0.00	481.10	Sudan	COMESA, IGAD	Active
59. Tanzania-Malawi Transmission Interconnector (Tanzania section)	S1: Project Definition	0.00	0.00	Tanzania	EAC	Active
60. ZTK Transmission Interconnector (Kenya section)	S4B: Construction	12.00	50.00	Kenya	COMESA, EAC	Active
61. ZTK Transmission Interconnector (Tanzania section - Iringa to Shinyanga)	S4C: Operation	24.00	242.00	Tanzania	EAC, SADC, COMESA	Active
62. ZTK Transmission Interconnector (Tanzania section - Iringa to Tunduma)	S4A: Tendering	24.00	242.00	Tanzania	EAC, SADC, COMESA	Active
63. ZTK Transmission Interconnector (Tanzania section - Singida to Namanga)	S4B: Construction	24.00	258.82	Tanzania	EAC, SADC, COMESA	Active

Table A-7.3	PIDA PAP 2—Transport Sector[1]					
Project	**Stage**	**Prep. cost (US$ million)**	**CAPEX (US$ million)**	**Countries**	**REC**	**Status**
64. Bachuma Gate – Maji ya Chumvi Road	S4C: Operation	6.00	61.00	Kenya	EAC	Active
65. Bujumbura Lake Port Upgrading	S4A: Tendering	0.00	0.00	Burundi	EAC	Active
66. Bungoma - Eldoret Road	S4C: Operation	0.00	0.00	Kenya	EAC	Completed
67. Eldoret - Kitale Road	S3B: Transaction Support & Financial Close	0.00	0.00	Kenya	EAC	Active
68. Juba-Bor-Malakal-Renki-Sudan border Railway	S1: Project Definition			South Sudan	IGAD	Active
69. Juba-Bor-Malakal-Renki-Sudan border Road	S1: Project Definition			South Sudan, Sudan	IGAD	Active
70. Kabale - Kisoro Road (100km)	S4C: Operation	0.00	0.00	Uganda	EAC	Completed
71. Kampala - Eldoret Road	S4C: Operation	0.00	0.00	Kenya	EAC	Completed
72. Kampala - Kasese Standard Gauge Railway (part of Mombasa - Kigali Railway Project)	S3A: Project Structuring	0.00	4400.00	Uganda	EAC	Active
73. Kampala - Outer Beltway Expressway Road (KOB)	S2B: Feasibility	0.00	0.00	Uganda	EAC	Active
74. Kampala Bombo Expressway Road	S3A: Project Structuring	0.45	5.00	Uganda	EAC	Active
75. Kampala-Jinja Road	S2A: Pre-Feasibility	7.00	68.00	Uganda	EAC	Active
76. Kampala-Kibuye Busega-Mpigi Expressway Road	S3B: Transaction Support & Financial Close	0.00	0.00	Uganda	EAC	Active
77. Kasese - Mirama Hills Standard Gauge Railway (part of Mombasa - Kigali Railway Project)	S3A: Project Structuring	0.00	4400.00	Uganda	EAC	Active
78. Katuna - Biumba Road	S1: Project Definition			Uganda	EAC	Active
79. Katuna/ Gatuna OSBP	S4B: Construction	0.00	0.00	Rwanda, Uganda	EAC	Active
80. Kigoma Port Upgrading	S3A: Project Structuring	0.00	0.00	Tanzania	EAC	Active
81. Kisumu Lake Port Upgrading	S1: Project Definition	1.00	10.00	Kenya	EAC	Active
82. Malaba - Kampala Standard Gauge Railway (part of Mombasa - Kigali Railway Project)	S4A: Tendering	0.00	2300.00	Uganda	EAC	Active
83. Malaba OSBP	S4C: Operation	1.00	11.88	Kenya, Uganda	EAC	Completed
84. Masaka - Malaba Road	S4C: Operation	0.00	0.00	Uganda	EAC	Completed
85. Mbarara-Ntugamo Road	S4B: Construction			Uganda	EAC	Active
86. Mirama Hills - Kigali Railway (part of Mombasa - Kigali Project)	S3A: Project Structuring	0.00	4400.00	Rwanda	EAC	Active
87. Molo-Eldoret Road	S4C: Operation	0.00	0.00	Kenya	EAC	Completed
88. Mombasa - Nairobi Standard Gauge Railway (part of Mombasa - Kigali Railway Project)	S4C: Operation	500.00	5000.00	Kenya	EAC	Completed
89. Mombasa - Voi Road	S2B: Feasibility	2.70	455.00	Kenya	EAC	Active
90. Mombasa Port New Container Terminal	S4C: Operation	0.00	35.00	Kenya	EAC	Completed
91. Mombasa Port New Petroleum Facility	S4A: Tendering	0.00	56.00	Kenya	EAC	Active
92. Mombasa Southern Bypass Road	S4B: Construction	4.00	39.00	Kenya	EAC	Active
93. Mombasa-Nairobi Toll Road	S2B: Feasibility	0.00	0.00	Kenya	EAC	Active
94. Mpondwe OSBP	S1: Project Definition	1.00	10.00	Democratic Republic of Congo, Uganda	EAC	Active
95. Mwanza Port Dredging and Upgrading	S2B: Feasibility	1.00	10.00	Tanzania	EAC	Active
96. Nadapal OSBP	S3A: Project Structuring	0.00	0.00	Kenya, South Sudan	IGAD	Active
97. Nairobi - Malaba Standard Gauge Railway (part of Mombasa - Kigali Railway Project)	S4A: Tendering	0.00	6498.00	Kenya	EAC	Active

Table A-7.3	PIDA PAP 2—Transport Sector[1]					
Project	**Stage**	**Prep. cost (US$ million)**	**CAPEX (US$ million)**	**Countries**	**REC**	**Status**
98. Nairobi Southern Bypass Upgrading	S4C: Operation	22.00	216.00	Kenya	EAC	Completed
99. Port Bell Upgrading	S1: Project Definition	0.00	0.00	Uganda	EAC	Active
100. Port Jinja Upgrading	S1: Project Definition	0.00	0.00	Uganda	EAC	Active
101. Renk (South Sudan/Sudan) OSBP	S1: Project Definition	0.00	0.00	South Sudan, Sudan	IGAD	Active
102. Rusizi/ Bukavu OSBP	S3B: Transaction Support & Financial Close	0.00	0.00	Democratic Republic of Congo, Rwanda	EAC	Active
103. Tororo - Gulu - Pakwach Standard Gauge Railway (part of Mombasa - Kigali Railway Project)	S3A: Project Structuring	0.00	0.00	Uganda	EAC	Active
104. Voi - Athi Road	S4C: Operation	0.00	0.00	Kenya	EAC	Completed
105. Regional Rusumo Falls Hydroelectric Power Project II	S4B: Construction	7.72	461.00	Rwanda, Tanzania	EAC	Active
106. Ruzizi III Hydropower Plant	S3B: Transaction Support & Financial Close	31.00	6.24	Democratic Republic of Congo, Rwanda	EAC	Active
107. TAH6: Ndjamena to Djibouti - Missing Road Links in Sudan	S2A: Pre-Feasibility	0.00	0.00	Sudan	IGAD	Active
108. Kenya-Uganda Petroleum Products Pipeline (Kenya section)	S3B: Transaction Support & Financial Close	0.00	0.00	Kenya	EAC	Active
109. Kenya-Uganda Petroleum Products Pipeline (Uganda section)	S1: Project Definition	0.00	0.00	Uganda	EAC	Active

Annex 8: Presidential Infrastructure Championship Initiative Projects

Table A-8	PICI Projects					
Project	**Brief Description**	**Est. cost (US$ million)**	**Champion**	**Countries**	**REC**	**Status**
1. Missing Links on the Trans-Sahara Highway	Construction of 225 km of road between Assamakka and Arlit, Niger	102	HE President Abdelaziz Bouteflika of Algeria	Algeria, Niger, Nigeria, Tunisia, Mali and Chad	COMESA, AMU	Completed
2. Optic fibre link between Algeria and Nigeria via Niger	Installation of 4 500 km of terrestrial optic fibre cable	80	HE President Abdelaziz Bouteflika of Algeria	Algeria, Niger, Nigeria and Chad	COMESA, AMU	Feasibility, Constructio n
3. Nigeria-Algeria Gas Pipe line Project (Trans-Sahara Gas Pipe line)	A 4 401 km natural gas pipeline from Nigeria to Algeria via Niger, and from Algeria to Spain	USD 10 billion (48" line) and USD13. 7 billion (56" line)	His Excellency, President Muhammadu Buhari, Nigeria	Nigeria, Niger and Algeria	COMESA, AMU	Calabar-Kano 48" pipeline completed; other components at feasibility stage
4. Dakar-Ndjamena-Djbouti Road/Rail Project	An 8 715 km road/rail project which entails combining TAH 5 (Dakar to N'djamena) and TAH 6 (N'djamena to Djibouti)	USD 2.21 bil (road) USD 5.95 bil (rail)	His Excellency, President Macky Sall, Senegal	Senegal, Mali, Burkina Faso, Niger, Nigeria, Cameroon, Chad, Sudan, Ethiopia and Djibouti	ECOWAS, ECCAS, COMESA and IGAD	Component s are under construction
5. North-South Corridor Road/Rail Project	Construction of a multi-modal trans-continental interconnector		His Excellency, President Jacob Zuma, Republic of South Africa	South Africa, Botswana, Mozambique, Zambia, Zimbabwe, Tanzania and Malawi	SADC, COMESA and EAC	Different sections at different stages of preparation and implementat ion
6. Kinshasa-Brazzaville Bridge Road/Rail Project	The construction of a fixed crossing linking Kinshasa in Democratic Republic of Congo (DRC) with Brazzaville in Republic of Congo	0.00	His Excellency, President Denis Sassou Nguesso, the Republic of Congo	Republic of Congo and the DRC	ECCAS, CEMAC, SADC and COMESA	Feasibility and detailed designs combined.
7. Unblocking Political Bottlenecks for ICT Broadband and optic fibre Projects Linking Neighbouring States	The use of political gravitas and goodwill to unblock and facilitate political bottlenecks affecting the implementation of ICT broadband and optic fibre projects on the continent		His Excellency, President Paul Kagame, Rwanda	All African countries	All RECs	Sections of connections under construction
8. Construction of Navigational Line between Lake Victoria and the Mediterranean Sea	This project has various components focusing on water management and intermodal transport		His Excellency, President Abdel Fattah el-Sisi, Egypt	Egypt, Kenya, Uganda, Sudan, South Sudan, Burundi, Ethiopia, DRC and Tanzania	COMESA, IGAD, EAC and SADC	Pre-feasibility completed; feasibility and design studies ongoing
9. Lamu Port Southern Sudan-Ethiopia Transport Corridor Project	The project will entail various transport node developments	USD 25 billion	His Excellency, President Uhuru, Kenyatta, Kenya	South Sudan, Ethiopia, Uganda and Kenya	COMESA, EAC, IGAD	



ONE RIVER
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