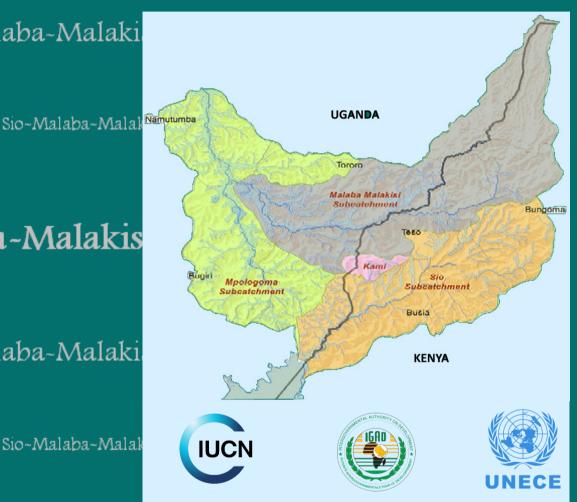
Sio-Malaba-Malakisi

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SITUATION ANALYSIS AND ACTIVITIES **REFINEMENT FOR STRENGTHENING TRANSBOUNDARY WATER COOPERATION IN THE SIO-MALABA-MALAKISI SUB-BASIN**

Delivery No. 3:

Final Situation Report

Prepared by: Dr. Nicholas Azza **Eng. Mohammed Badaza Eng. Cosmus Muli**

June 9, 2017

Sio-Malaba-Malaki

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Acronyms and abbreviations

AfDB	African Development Bank
amsl	Above mean sea level
AWS	Automatic Weather Station
BOAD	The Benefit Opportunities Assessment Dialogue
СВО	Community Based Organisation
CEPGL	Economic Community of the Great Lakes Countries (Communauté Economique des Pays des Grands Lacs)
CFA	Cooperative Framework Agreement
CIWA	Cooperation on International Waters in Africa
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Cooperation
DSS	Decision Support System
EAC	East African Community
EAPP	East Africa Power Pool
ENSAP	Eastern Nile Subsidiary Action Program
ESARO	Eastern Africa Regional Office
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
FAO	United Nations Food and Agriculture Organisation
FIEFOC	Farm Income Enhancement and Forest Conservation Project
GEF	Global Environmental Facility
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
Govt.	Government
GWP	Global Water Partnership
ha	Hectare
HEP	Hydroelectric Power
HYCOS	Hydrological Cycle Observing System
IDA	International Development Association
IGAD	Inter-Governmental Authority on Development
INWRM	Inland Water Resources Management

ITCZ	Inter-Tropical Convergence Zone
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
KfW	Kreditanstalt für Wiederaufbau (Germany)
kW	Kilowatt
LGA	Local Government Agency
LVBC	Lake Victoria Basin Commission
LVFO	Lake Victoria Fisheries Organisation
LVNCA	Lake Victoria North Catchment Area
M&E	Monitoring and Evaluation
MERECEP	Mount Elgon Regional Ecosystem Conservation Programme
МСМ	Million Cubic Metres
MDA	Ministries, Departments and Agencies
MDG	Millennium Development Goal
MOFA	Ministry of Foreign Affairs
MoU	Memorandum of Understanding
MoWE	Ministry of Water and Environment
MW	Megawatt
MWI	Ministry of Water and Irrigation
NaFIRRI	National Fisheries Resources Research Institute
NBA	Niger Basin Authority
NBI	Nile Basin Initiative
NBTF	Nile Basin Trust Fund
NCORE	Nile Cooperation for Results Project
NEL	Nile Equatorial Lakes
NELCOM	Nile Equatorial Lakes Council of Ministers
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NELSAP-CU	Nile Equatorial Lakes Subsidiary Action Program Coordination Unit
NELTAC	Nile Equatorial Lakes Technical Advisory Committee
NEMA	National Environment Management Authority
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
NLO	National Liaison Officer
NORAD	Norwegian Agency for Development Co-Operation
NTEAP	Nile Transboundary Environmental Action Plan
OES	U.S. Department of State Bureau of Oceans and International Environmental and Scientific Affairs
PMU	Project Management Unit

RAP	Resettlement Action Plan
RBM	River Basin Management
RBO	River Basin Organisation
REC	Regional Economic Community
RGS	River Gauging Station
RPSC	Regional Project Steering Committee
SAP	Subsidiary Action Program
SIDA	Swedish International Development Cooperation Agency
SLM	Sustainable Land Management
SMM	Sio-Malaba-Malakisi
SNV	Netherlands Development Organisation
SVP	Shared Vision Program
TAC	Technical Advisory Committee
ToR	Terms of Reference
UEGCL	Uganda Electricity Generation Company Limited
UN	United Nations
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organisation
US\$	United States dollars
WMO	World Meteorological Organisation
WMZ	Water Management Zone
WR&EM	Water Resources and Environmental Management
WREG	Water Resources and Environmental Group
WREM	Water Resources and Environmental Management
WRM	Water Resources Management
WRUA	Water Resources User Association
WSS	Water Supply and Sanitation

WSS Water Supply and Sanitation

Executive Summary

The Sio-Malaba-Malakisi (SMM) Sub-basin comprises of two transboundary river basins shared by Kenya and Uganda. These are the Lwakhakha-Malakisis-Malaba river basin and the Sio river basin, both of which are Upper Nile Water System. The two river basins have a combined catchment area of 5,352 km² and a population of 4 million persons.

Agriculture is the main economic activity in the sub-basin, with 60–96% of the population of the districts and counties in the sub-basin engaging in this activity. The agriculture is largely rainfed, lowly mechanised and practiced on small farmlands. Other important economic activities include fishing, poultry keeping, sand mining, brick making, charcoal burning, petty trade and bicycle taxis (boda-boda). There is a scattering of manufacturing activities and cottage industries in the sub-basin.

Agricultural irrigation is the largest consumptive water use in the basin, with the area under irrigation (mainly for growing rice, vegetables and sugarcane) being 740.5 ha and 39,300 ha in Kenya and Uganda respectively. Irrigation water requirements make up 40.1% of the total consumptive water use. Other important water use sectors are rural industry (32.0% of current consumptive water use), fisheries/aquaculture (19.3%), domestic water supply (4.6%) and livestock watering (3.9%).

In 2005, Kenya and Uganda, with financial support from Sweden and Norway, established the Sio-Malaba-Malakisi Integrated River Basin Management Project as one of the projects under the Nile Equatorial Lakes Subsidiary Action Program (NELSAP). The SMM River Basin Management Project has gone through three phases of funding, with the first phase from 2005 – 2010 followed by a second phase from 2010-2013 and a final phase from 2014-2017. The institutional arrangement for implementation of the project comprised of the Nile Equatorial Lakes Council of Water Ministers (NELCOM), Nile Equatorial Lakes Technical Advisory Committee (NELTAC), Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU), Regional Project Steering Committee (RPSC) and Project Management Unit (PMU).

The objective of the SMM project was "To establish a sustainable framework for the joint management of the water resources of the Sio-Malaba-Malakisi catchments in order to prepare for sustainable investments that will improve the living conditions of the people as well as protect the environment." It has four components, namely (a) joint sustainable cooperative management framework (transboundary water governance); (b) investment opportunities identification in the catchments (regional water infrastructure planning and development); (c) capacity building at all levels for sustainable management of water resources (institutional strengthening); and (d) small scale investment projects. The total funding to the project was US\$ 10.96 million over the twelve years of its existence.

Key achievements of the SMM project are the following:

- 1. Transboundary water resources management policies in Kenya and Uganda have been improved;
- 2. Within each country, the institutional framework for catchment-based integrated water resources management has been strengthened and mechanisms from cross-sectoral coordination and stakeholder participation improved;

- 3. Institutional options for cooperative management of the SMM sub-basin by the two counties have been put forward and a Memorandum of Understanding (MoU) signed between the two countries for continued cooperation on management of the Sub-basin;
- 4. Water resources monitoring networks of the two countries have been strengthened;
- 5. The knowledgebase for river basin planning has been enhanced through numerous studies, preparation of river basin monograph, preparation of a state of basin report and creation of a river basin database and GIS system;
- 6. Tools for sub-basin planning and water allocation have been improved by carrying out a Multisectoral Investment Opportunity Analysis, preparation of an investment strategy and development of a computer-based water allocation tool;
- 7. Sub-regional capacity for transboundary water resources management improved through training of public officials and members of the local community in a diverse range of topics related to Integrated Water Resources Management (IWRM) and Transboundary Water Governance;
- 8. Community participation in natural resources management has been enhanced through their active involvement in project activities;
- 9. A pipeline of 13 investment projects have been prepared to a bankable stage;
- 10. Sub-catchment management plans for three sub-catchments (Lwakhakha, Middle Malakisi-Malaba and Lower Sio) have been prepared; and
- 11. Six small-scale investment projects have been implement (three in each country) to build early confidence in sub-basin community.

A number of studies to develop a policy, legal and institutional framework for future management of the SMM sub-basin have been undertaken by NELSAP. These studies considered four main alternative arrangements, namely (a) continuing with a project management framework; (b) creating a bilateral framework between Kenya and Uganda for management of the SMM sub-basin; (c) creating a framework for the SMM Sub-basin under the NBI; or (d) creating a framework for the SMM Sub-basin under the East African Community (EAC). After considering all of the above options, the two countries chose option (a) – to extend the project management arrangement and have signed a Memorandum of Understanding on cooperation on the SMM based on this framework.

An assessment of Strengths, Weaknesses, Opportunities and Threats (SWOT) for the SMM River Basin Management Project was carried out under the current study. The key strengths identified include the signing of an MoU for cooperation on the SMM, and many investment projects prepared ready for implementation; key weaknesses include the failure to implement the investment projects, and weak implementation of the agreed upon legal and institutional framework for cooperation on the SMM subbasin; key opportunities include the strong and friendly ties between Kenya and Uganda, and strong donor support for transboundary cooperation; the key threats include the high poverty, population growth rates and environmental degradation in the sub-basin, and low funding for transboundary cooperation.

Key SMM sub-basin stakeholders when asked about the most important areas for follow up after closure of NELSAP's project prioritised support to the countries in resources mobilisation, implementation of the investments projects, implementation of the Sub-catchment management plans, upscaling smallscale demonstration projects and continuing capacity building in in the area of transboundary water and environmental resources management. Stakeholder analysis for the OES/IGAD Project performed as part of this study identified 130 stakeholders belonging to 10 generic groups. Stakeholder mapping and further prioritization yielded 4 groups, with the groups with highest importance and need for continuous engagement comprised of selected ministries, departments and agencies (including the Ministries of Water and Foreign Affairs), catchment-level IWRM institutions (Water Resources Management Authorities in Kenya and Water Management Zones in Uganda), Regional Economic Communities (RECs) and Transboundary RBOs (including NBI and LVBC).

Proposals made under this study, of possible areas where the OES/IGAD Project could lend support to the countries in the cooperative management of the SMM Sub-basin, are six namely (1) finalisation of the legal and institutional framework for transboundary water cooperation in the SMM basin; (2) facilitation of a process for prioritization of investment projects in the SMM basin; (3) training on water diplomacy and transboundary water management, and awareness raising on the UN Watercourses Convention and UNECE Water Convention; (4) identification and nurturing of basin champions for integrated river basin development; (5) establishing and operating an SMM Water Forum; and (6) supporting the preparation of good practice guides.

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1. INTRODUCTION

1.1 The Sio-Malaba-Malakisi Sub-basin

1.1.1 The SMM catchment area

The Sio-Malaba-Malakisi (SMM) River Basins are shared by Kenya and Uganda. The Sio River originates from a marshy land to the south-west of Bungoma town (Kanduyi), flows along the common Kenya-Uganda border, and discharges into Lake Victoria at 1134 meters amsl. The Sio has a catchment area of 1450 square kilometers (km²). The Lwakhakha and Malakisi Rivers both originate in Mt. Elgon and join to form the Malaba River which discharges into Lake Kyoga at an elevation of 950 meters amsl. The Malaba-Malakisi catchment has an area of 3780 km². The geographical area drained by the two river systems extends between latitude 1.133° north to 0.193° South and Longitude 33.673° to 34.571° East (Newplan, 2010).

1.1.2 General climatology of the SMM basin

The climate of the SMM catchment area can be categorized as humid and sub-humid. The temperature, wind, rainfall and evaporation are modulated by the movement of the Intertropical Convergence Zone (ITCZ) with local modifications by the presence of Lake Victoria and topography of the area. The following sections briefly describe the variability of these parameters within the catchment (Newplan, 2010).

1.1.3 Temperature and evaporation

The climate on Mount Elgon is Montane with mean annual temperatures varying from less than 10°C at over 3,050 m elevation to 15°C at 2000 m elevation. In addition to proximity to Lake Victoria, there is also a strong orographic influence on temperature regimes experienced within the SMM. Mean maximum temperature is about 27.5°C around low lying areas and about 5°C lower around the slopes of Mt. Elgon. A mean monthly minimum temperature of 15°C was recorded in the plains, falling to 10°C higher up the

slopes of Mt. Elgon (WREM, 2008). The orographic influence on the temperatures is markedly evident around Mbale and Tororo where much convective activity generally occurs over the highlands during the warm season. Vertical transport of heat over the mountainous regions influences the behavior of the maximum temperatures while the altitude favors the production of a lower minimum temperature. On the other hand, the effect of Lake Victoria on the temperature regimes of island stations such as Loui and shoreline stations e.g., Busia, is to limit the temperature range of variation.

The trends inherent in the spatial distribution of evaporation are similar to those observed for air temperatures. Maximum evaporation occurs in the dry months of January and December with limited variation within the year.

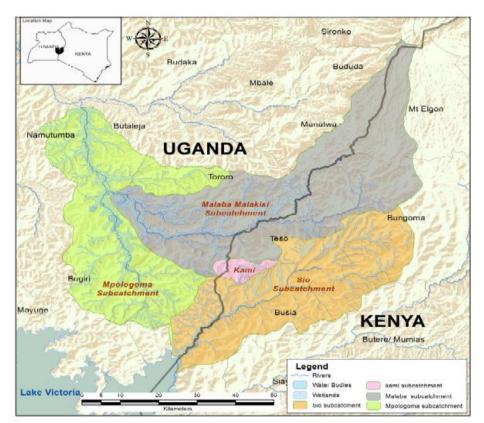


Figure 1: Map showing the Sio-Malaba-Makalisi Sub-basins (WREM, 2007a)

1.1.4 Wind

Winds over the SMM catchment closely follow the pattern of the apparent movement of the sun across the equator through the Inter-Tropical Convergence Zone (ITCZ). The ITCZ and its influence affect the regime of most of the meteorological parameters including rainfall, wind speed and direction, and temperature. In the months of January-February and June-September, the wind pattern is predominantly East-West, parallel to the equator, with origins from the Nandi Hills in Western Kenya. These are fairly dry winds. During the period of March-May and October-December, the wind pattern changes toward the south (WREM, 2008).

1.1.5 Rainfall in the SMM basin

The rainfall over the SMM is primarily modulated by the ITCZ movement. In addition, extensively low pressures over Lake Victoria combine with the ITCZ system to dictate the distribution of rainfall over periphery areas along its shoreline around Busia in Uganda and Kenya where average annual rainfall ranges between 1,460 mm to 1,600 mm. In the mountainous terrain, rainfall is of the orographic type where the windward side experiences heavy precipitation while lower lying areas tend to be drier. Elevated areas surrounding Mt. Elgon have average annual rainfalls of over 1,800 mm, while areas lying to the west of the mountains (the leeward side) receive less rainfall ranging from 900 - 1,180 mm. The above influences result in the Kenya side of the Sub-basin being much wetter than the Uganda side (Figure 2; WREM, 2008).

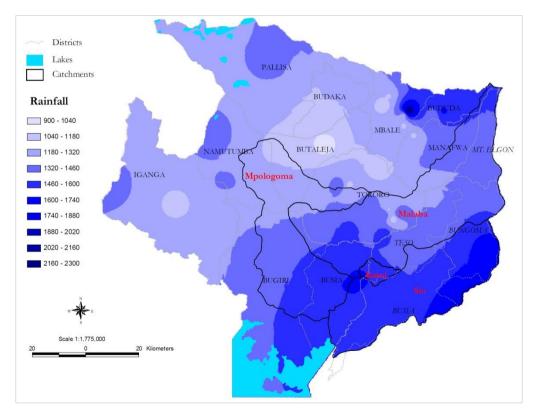


Figure 2: Distribution of mean annual rainfall (WREM, 2008).

1.1.6 Hydrology in the SMM basin

There is a fairly dense dendritic network of rivers and streams draining the SMM basin .The basin comprises of two major rivers; Sio, and Lwakhakha-Malaba-Malakisi. The rivers are trans-boundary in nature, with the headwaters of the Lwakhakha-Malaba-Malakisi being in Mt. Elgon while the headwaters of the Sio River lie south-west of Bungoma Town. The Sio River flows southwards discharging into Lake Victoria, while the other two rivers (Lwakhakha and Malakisi) merge to from the Malaba which then flow southwards and then westwards to join Mpologoma River and eventually discharge into Lake Kyoga. The catchment is dominated by Mt. Elgon, with its highest peak at an elevation of 4,320 m amsl., while the lowest points are; Lake Victoria at 1132 m amsl., and Lake Kyoga at 950 m amsl. Therefore the waters rush down from the caldera of Elgon, and hills around Mt. Elgon, through the steep-sided valleys, to the above mentioned lakes, carrying substantial amounts of sediments, generated from mainly the cultivated hillsides.

1.1.7 Population

The Sio-Malaba-Malakisi catchment area has a population of about 4 million people (equally distributed between Kenya and Uganda) that is growing fast. The population is largely rurally based, with the percent of population residing in urban areas ranging from 6-10% in the SMM districts and counties (WREM, 2008). The population density in most parts of the catchment is high, ranging from 150 to 500 persons per square kilometer (km2); and the growth rate ranges from 2%–5% (WREM, 2008). Highest population densities exist in the northern Districts in the basin of both Kenya and Uganda (Mt Elgon) i.e. Bungoma West and South, Teso North, Bududa and Manafwa. Bungoma South Country that hosts Bungoma town has the highest density of 613 persons/km².

Population growth has resulted in heavy and increasing pressure on the catchment natural resources rendering their current rate of exploitation unsustainable. It has also resulted in encroachment of gazetted forests and wetlands for additional agricultural land. This is manifested in encroachment on swamps and wetlands and other fragile ecosystems, unsustainable land use practices and mismanagement of water resources.

1.1.8 Land use and cover

The main land use in the Sio-Malaba-Malakisi catchment is rain-fed subsistence agriculture. Virtually the basin outside the Mount Elgon forest area is divided into agricultural and grassland, fallow land, and isolated woodlots. Mount Elgon forest together with Busitema forest reserve in Busia district is the only substantial remaining natural forest. The highest areas of Mt. Elgon are covered by moorland and heather. In the rest of the basin, large areas of natural forest cover including riparian zones and some seasonal wetlands have been converted into agricultural use, leading to further degradation of the catchment areas and an increase in soil erosion and sedimentation. Numerous small private woodlots are also widespread within the basin. . Land use changes in the SMM basin and notably in the catchments of the Mt Elgon ecosystem have adversely changed the river hydrological flow regimes. This calls for concrete actions that will offset the poor land and WRM practices which are holding back productive activities and the performance of existing water infrastructure facilities.

1.1.9 Land tenure and ownership

The average land holding per household within the SMM basin is 2.8 acres which is acquired through inheritance and some through purchase. In Uganda, land ownership, management and control are regulated by the Land Act 1998, which recognizes customary, mailo, freehold and leasehold (within urban centers/towns) tenure type of land ownership. Kenya similarly has a wide range of land tenure including: leasehold (within urban centers/towns), freehold/ancestral or customary, and landlord/tenancy tenure. Customary tenure appears to cut across all the ethnic groups (Bagisu, Samia, Banyole, Basoga, Bagweri and Jopadhola in Uganda and Bukusu, Samia, Iteso in Kenya) (WREM, 2008).

Customary tenure is regulated largely by rules that are limited to a particular ethnic group and may provide for communal ownership and land use. A customary certificate of ownership guarantees a tenant's interest on the land. This procedure provides incentives to the tenant to invest in the proper land management. However, because of population pressure (250-500 persons per square kilometer in Tororo, Busia and Manafwa/Bududa), poverty, and land acquisition largely through inheritance from the head of the family, farm sizes have considerably diminished and with fragmentation into small units , it has rendered land un economical for agricultural production (WREM 2008).

1.1.10 Water issues

Water resources are relatively abundant in parts of the catchment but the catchment development potential remains unexploited. Agricultural irrigation, livestock fisheries and aquaculture and domestic water are the main users of water within the sub basin (Figure 3).

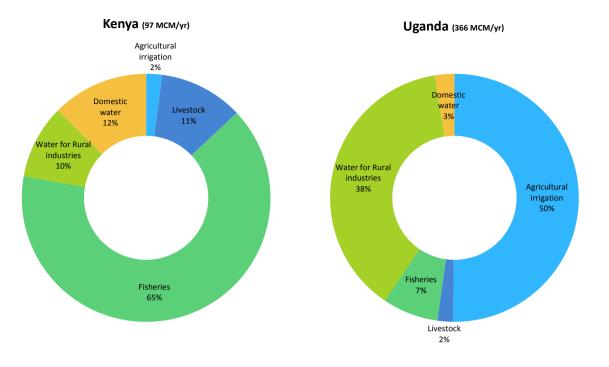


Figure 3: Doughnut charts showing water use in Kenya and Uganda (data source: NELSAP, 2013)

Comparison (under this study) of water use in the two countries through the above figure reveals major differences in water use patterns in the countries. Current water demand in Uganda is about 4 times the water demand in Kenya. This is largely because of many small to large scale irrigation schemes in the Uganda part of the Sub-basin, and absence of major irrigation schemes in Kenya. In Uganda, agricultural irrigation accounts for 50% of total water demand while in Kenya it accounts for only 2% of the water demand. Another major difference relates to fisheries and aquaculture, which is relatively better developed in Kenya, and expresses the largest demand for water (65% of current water demand) and very poorly developed in Uganda where it contributes 7% of the total water demand. Part of the reason for this could be the abundance of large water bodies in Uganda (Lake Victoria, Lake Kyoga, Lake Bisina, Mpologoma river, etc.) that readily supply the sub region with fish and fish products, while Kenya has only a small portion of Lake Victoria (6% in Kenya compared to 45% in Uganda) and not very many large rivers.

The basin faces constraints primarily from deteriorating water quality but also water scarcity in parts of the catchments. Degradation of water resources is linked to widespread poverty in the sub-basin. The key water related issues in the SMM catchment include low safe water and sanitation coverage, inadequate awareness of water resources related issues, water pollution (surface water and groundwater), deforestation, flooding, drainage of wetlands, excessive soil erosion, cultivation of riverbanks, lack of access to adequate and reliable water resources data and information, and overexploitation of groundwater resources (WREM, 2008).

1.1.11 Water and land conflicts

Cross-border conflicts over land and water resources are beginning to emerge in the Sub-basin, particularly in the low-lying lands along the Malaba River due to frequent change of course by the river. The issue is primarily the result of soil erosion, sediment transport and river siltation, and is linked to rising deforestation coupled with cultivation up to the river bank. This issue is being addressed through coordination between the sub catchment management committees across the borders and through diplomatic channels between the two countries (WREM, 2008).

1.1.12 Socio-economic issues

The main economic activities within the SMM basin include agricultural farming, livestock keeping, fishing and aquaculture, commercial activities /local businesses and cross border trade. Poverty levels in the catchment are high ranging from 30% to 66%, with many of the rural population struggling to meet their basic needs (shelter, food, water, health and education). Poverty is adversely impacting the active participation of most people in socio-economic development activities including the planning, management, and implementation of water resources management and development activities. Close to 80% of the basin population lives in rural areas where food security and social well-being directly depend on the rivers and on the existing water resources.

Water related diseases are the most common causes of illness and deaths among the rural poor communities in the SMM catchment. Diarrhoeal diseases (cholera & dysentery) are among the major killer diseases of young children, accounting for about 20% of all infant deaths in the SMM catchment (WREM, 2008)

Gender inequality is one of the major causes of persistent poverty since women's lack of access to and control over resources adversely impacts their productivity (WREM, 2008). This therefore creates a need to address gender imbalance within the catchment.

Most parts of the catchment have high population densities ranging from 150 to 500 persons per km² with corresponding high population growth rates ranging from 2% to 5%. This has resulted in heavy and increasing pressure on the catchment natural resources rendering their current rate of exploitation unsustainable.

1.2 The IGAD Region

1.2.1 IGAD and the IGAD Region

The Intergovernmental Authority on Development (IGAD) is one of eight Regional Economic Communities (RECs) in Africa established to foster regional co-operation and promote peace and stability so as to achieve sustainable economic development (IGAD, 1996). IGAD currently comprises of eight members, namely Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda. The IGAD countries make up and occupy the Greater Horn of Africa.

The IGAD region is a geographical area that suffers from acute water scarcity and recurring drought. Over 60% of the region is covered by arid and semiarid drylands in which water availability is a key factor limiting development. In recognition of the great bottleneck to development posed by water, there have been growing efforts in the region supported by international development partners to promote integrated water resources management (IWRM) approaches and foster cooperation among IGAD member states on cooperative management and development of shared water resources (IGAD, 2015).

Kenya and Uganda are founding members of IGAD. Hence, the SMM is a basin of the EAC as well as of IGAD

1.2.2 The IGAD Inland Water Resources Management (INWRM) Program

One of the efforts at addressing the water crisis in the IGAD Region was the EU-funded Inland Water Resources Management and Development (INWRM) Program that was implemented from 2011 - 2015. It was aimed at strengthening national and regional capacities for water resources management, facilitating regional dialogue on water cooperation and improving national and regional frameworks for water resources management.

The INWRM Program made a number of important achievements including the preparation of a Regional Water Resources Policy (adopted by IGAD sectoral ministers of water resources in January 2015); preparation of a draft Regional Water Resources Protocol and draft Policy and Protocol for Data Sharing; establishment of a regional water resources monitoring and information system based on the IGAD HYCOS and; establishment of an IGAD Water Dialogue Forum (WDF) (Azza and Olet, 2015).

1.3 About the study

1.3.1 The OES/IGAD Project

As a way of consolidating transboundary water cooperation and governance activities in the IGAD Region, the International Union for Conservation of Nature (IUCN), United Nation Economic Commission for Europe (UNECE), and U.S. Department of State Bureau of Oceans and International Environmental and Scientific Affairs (OES) recently initiated a new project titled "*Strengthening transboundary water governance and cooperation in the IGAD region.*" This project will help IGAD Member States strengthen regional and basin level frameworks and stakeholder-inclusive governance mechanisms for the joint management and development of shared water resources as well as enhancing their capacity in areas related to transboundary waters governance and cooperation, such as hydro-diplomacy, international water law, negotiation, and benefit-sharing (IUCN, 2017).

Specific interventions under the Project include finalising the IGAD Regional Water Resources Protocol initiated under the INWRM Program and selection of a demonstration basin to pilot transboundary water governance approaches such as basin-level dialogue, stakeholder inclusive governance processes, joint identification and prioritization water resources management and development projects that confer mutual benefits to co-riparian countries.

The above activities are expected to strengthen the abilities of key stakeholders in the SMM basin to engage in conflict mitigation, negotiation, and problem solving related to win-win collaborative management and development of shared water resources. Ultimately, they are expected to contribute to trust building and deepening of cooperation amongst the cobasin states of the pilot basin. The lessons learnt from the SMM basin will in turn inform both regional level processes and cooperation efforts in other basins of the IGAD region.

The new project, which will be executed by the IGAD Secretariat, will be carried out in synergy with IUCN's BRIDGRE program, and support to transboundary water cooperation provided under the UNECE Water Convention implemented by UNECE.

1.3.2 The Benefit Opportunities Assessment Dialogue (BOAD)

The present consultancy study forms one of two key component of a Benefit Opportunities Assessment Dialogue (BOAD) that is planned to be carried out in the SMM Sub-basin under the new OES/IGAD project "Strengthening transboundary water governance and cooperation in the IGAD region." The present study is expected to provide background information to support SMM subbasin stakeholders in objectively selecting areas around which to cooperate in the joint management of the shared resources of the SMM sub-basin (IUCN, 2017).

The other major component is the convening and facilitation of an interactive multi-stakeholder platform through which key basin stakeholders representing different sectors and various level of national and local governments get to engage in a basin visioning exercise, analysis of challenges and opportunities for joint basin management and development of selected actions to help tackle the challenges while taking advantage of the opportunities.

1.3.3 Study Objective

The objective of the present study is:

'To inform the design and planning of activities to be implemented in the SMM subbasin under the OES/IGAD project."

1.3.4 Study Scope

The activities under the project are expected to include the following:

- a. Preparing an Inception Repot (this report) containing an annotated outline of the Situation Report and detailed responsibilities of individual team members;
- b. Preparing a preliminary list of key relevant documents for review;
- c. Compilation of the listed documents;
- d. Reviewing the compiled documents to perform an analysis of the prevailing situation in the SMM sub-basin;
- e. Preparing a list of key informants to be interviewed/consulted as part of the situation analysis;
- f. Carrying out the interview/consultation of the listing persons;
- g. Identifying opportunities for water resources management and development that are in line with OES/IGAD project objectives;
- h. Drafting of the review report/situation analysis report;
- i. From the above review, preparing a scoping of the benefits of transboundary water cooperation in the SMM sub-basin;
- j. Refining activities needed to strengthen transboundary water cooperation in the sub-basin;

- k. Preparing workshop materials and facilitating a stakeholder workshop to internalise the situation report and scope of benefits for transboundary cooperation;
- 1. Capturing comments of stakeholders in the workshop and using it to prepare an updated report; and
- m. Preparing recommendation of next steps for the OES/IGAD project.

2. THE SIO-MALABA-MALAKISI INTEGRATED RIVER BASIN PROJECT

2.1 Project Background

The Nile Basin Initiative (NBI) at its launch in 1999 embarked on implementing a Strategic Action Program comprised of two components: a Shared Vision Program (SVP) sub-component and a Subsidiary Action Program (SAP) sub-component. The Shared Vision Program subcomponent was aimed at promoting the Shared Vision on the Nile, and creation of an enabling environment for investments and action on the ground, within a basin-wide framework. The second sub-component, the Subsidiary Action Program, comprised of actual development projects at sub-basin level, involving two or more countries. The SAPs were designed to allow the move from planning to action on the ground and demonstration of tangible benefits of Nile cooperation.

Two subsidiary action programs were formulated- one on the Eastern Nile sub-basin (i.e. the Eastern Nile Subsidiary Action Program – ENSAP) and the other on the Nile Equatorial Lakes Region (i.e. the Nile Equatorial Lakes Subsidiary Action Program – NELSAP). It is under the latter – the Nile Equatorial Lakes Subsidiary Action Program (NELSAP) – that three river basin projects were launched, one of which was the Sio-Malaba-Malakisi River Basin Project (NELSAP, 2010, 2015).

2.2 Project objective

The SMM project objective is

"To establish a sustainable framework for the joint management of the water resources of the Sio-Malaba-Malakisi catchments in order to prepare for sustainable investments that will improve the living conditions of the people as well as protect the environment."

2.3 Project components and outputs

The SMM Project had four key components and several outputs under each component. The components and components are presented in summarised form below. They are revised in detail in the section that follows.

Table 1: The SMM Project components and outputs (source: NELSAP, 2010, 2015)

Project Component	Output
1.Joint Sustainable Cooperative Management Framework (Transboundary water governance)	 Joint sustainable cooperative framework defined and agreed upon A transboundary management cooperative framework including a management strategy established for the river catchments. Institutional governance structures taking into consideration, strategic objectives and roles and responsibilities of the sub basin secretariat redefined Memorandum of Understanding for management of the transboundary SMM basin drafted, negotiated and signed by Kenya and Uganda for joint management of the SMM basin
2. Investment opportunities identification in the catchments (Regional water infrastructure planning and development)	 Sio-Malaba-Malakisi River Basin Monograph and Database developed. SMM Water Resources Allocation Models developed for optimization of the sub basins water resources Investment strategy developed, investment opportunities identified and documented Pre-feasibility studies undertaken with 27 potential multipurpose water project sites identified within the SMM basin. Identification and preliminary assessment of dam sites upstream of Bulusambu, Manafwa River Regional bankable water infrastructure projects were prepared, namely the Maira multipurpose water project, Sio-Sango irrigation and watershed project, Busia, Bungoma, Lwakhakha and Malaba Cross Border Pollution Control Projects Lower Sio, Middle Malaba and Lwakhakha Shared Sub Catchment Management Plans were jointly developed and launched by both Kenya and Uganda in 2014.
3. Capacity building at all levels for sustainable management of Water Resources (institutional strengthening)	 Staff trained at national and basin levels and catchments offices strengthened Community awareness raising about environmental management issues and development options Catchment-wide sustainable hydro-meteorological network and water quality monitoring established (40 digital rain gauges installed, 8 AWS, 12RGS installed and operational, sediment samplers and Acoustic Doppler Current Profilers supplied to the countries) Lower Sio, Middle Malaba and Lwakhakha Shared Sub

Project Component	Output
	 Catchment Management Plans developed Middle Malakisi (Toloso) Sub Catchment Management Plan developed. Sio Malaba Malakisi Water Allocation Model developed and staff trained in its use.
4. Small Scale Investment Projects	 Malaba Storm Water Drainage Master Plan, Uganda Mella Water supply and sanitation Project, Tororo, Uganda Busia Community Fish Ponds, Uganda Malaba Pollution control and solid waste management, Kenya Angurai water supply and sanitation project, Teso district, Kenya Lukhuna Small Scale Irrigation Scheme Sitabicha /Suswo Small Scale Irrigation Scheme

2.4 Detailed project achievements

2.4.1 Result Area 1: Foundation for Transboundary Cooperation Established

The aim of this result area was to facilitate agreement on a joint cooperative framework for the joint management of the shared water resources of the Sio-Malaba-Malakisi sub basins. A review of the policy, legal and institutional frameworks of the project was undertaken with recommendations for inter country agreements as an interim measure before the Nile Cooperative Framework Agreement (CFA) becomes effective. Subsequently, NEL countries agreed to enter into Memorandums of Understanding (MoUs)/Inter-country agreements to facilitate implementation of joint interventions at the three sub basin levels. The MoUs were finalized, submitted to the respective country legal departments for review and are currently at the level of ratification (SMM, 2012).

Key achievements under this result area are outlined as follows.

i. *Transboundary WRM policies developed:* The upstream policy work undertaken by the SMM RBM Project, triggered review of water policies at the national level to include transboundary aspects and this has enhanced transboundary engagement among the participating countries. The SMM Project with support from NELSAP provided technical assistance and mobilized bilateral financing from GIZ towards the revision of the Transboundary water policy frameworks of Uganda and Kenya.

- ii. Transboundary WRM institutions strengthened: As a result of the policy and institutional framework development work undertaken in the SMM RBM Project: (i) there is integrated action across natural resource issues, which means SMM sub-basin agencies (e.g. the Lake Victoria North Catchment Area in Kenya and the Kyoga Water Management Zone and Victoria Water Management Zone in Uganda under the SMM sub basin) do not look for singular solutions but look at impacts across the spectrum of natural resources sectors; (ii) for a have been created for regional coordination arrangements which include but are not limited to dialogues with civil society (e.g. Nile Basin Discourse), joint technical teams (like the SMM DSS team), MoUs and joint programs of action (for instance in catchment planning) between states participating in the SMM RBM Project; (iii) there is consensus-based decision-making in sub basin planning and management to balance user needs for water resources and (iv) rules of procedures for the SMM Regional Project Steering Committee have streamlined decision making at the sub-basin level.
- iii. Sub-basin organizational mandates clarified: The SMM project has gradually developed institutional arrangements for sub basin management (consistent with the prevailing needs for river basin management and the level of development of the sub basin) which specify roles and responsibilities of different entities in the SMM Sub-basin. Furthermore, through the revised memorandums of understanding and the inter-country agreements, countries have clarified their authority, which is centered on: (i) facilitation of cross-sectoral planning, and management, (ii) provision of coordination and advisory roles and (iii) coordination of water resources regulation (supported by water resources allocation tools) for programs in the sub basin. The inter-country agreements will formalize the engagements once ratified (SMM, 2012).

2.4.2 Result Area 2: Foundation for transboundary WRM enhanced

Key achievements under this result area are the following:

i. *Water resources monitoring systems enhanced:* Sub-basin organisations need to generate and provide high quality, reliable and comprehensive data to stakeholders in a format that suits their needs to facilitate WRM and investment planning. In this regard, the SMM RBM Projects, as a contribution towards the NBI regional knowledge base, and working together with national departments responsible for hydrology and water resources monitoring, designed, procured and thereafter facilitated equipment installation at strategic locations with the SMM Sub-basin. The installed hydrometric stations, which are currently being operated by the national hydrological agencies, have enhanced the monitoring of water resources and reliable data is being generated for improved investment planning. The data from these stations is shared and exchanged in line with the NBI Interim data and information sharing procedures and this has contributed to the uniformity of information systems in the NEL basin. Data obtained from water resources monitoring is being used to describe seasonal variations of river flow, depositional rates of sediments and water budgets for selected sub basins. **Table 2** gives a summary of the hydro meteorological stations installed in the SMM sub basin.

Table 2: The SMM Project interventions in strengthening of water resources monitoring networks (NELSAP, 2015b)

Intervention	Project outputs
Establishment of Automatic River Gauging Stations	12
Establishment of Automatic Weather Stations	8
Installation of Rain Gauges	40



Figure 4: Technical Officers from LVNCA taking readings from an automatic weather station at Bumbe installed by the SMM Project (SMM, 2011).

- ii. River basin planning and management enhanced: The SMM Sub-basin, like the rest of the NEL sub-region, needed systems and models for analysis which allow knowledge based water management strategies to be developed and implemented. In the first phase, the SMM RBM Project developed a resource inventory (SMM Monograph) and analytical tools (models) which are used for analysis and prioritizing resource management and development options. The SMM monograph describes the condition, trend and spatial location and variability of natural resources in the SMM sub-basins. This aids the understanding of the condition of natural resources, and knowledge on which sound judgments can be made about prioritizing river basin management options. The monograph has provided baseline information that has enabled monitoring the state of the environment in the sub basins over time, to identify the changes in resource conditions which form a feedback loop to the decision process. Data from the monograph has been used for water resources planning in the SMM sub basin. These data sets have been developed in a GIS system, operated by the Project PMU in partnership with government agencies and other basin management stakeholders. The government agencies in the two countries have copies of, and receive training on, the planning tools developed by the SMM Project.
- iii. Sub-basin development plans and water allocation models developed: Subbasin development plans and water allocation models have been developed by the SMM project to guide the riparian countries in rational planning and prioritization of projects from a basin-wide perspective and give a holistic understanding of their benefits, costs, risks and cumulative impacts. The tools have strengthened the coordinated planning of the sub-basin's water resources, in order to optimize the resultant economic and social welfare in an equitable manner without compromising ecosystem sustainability. As a result of the pre-investment work accomplished by the SMM Project, there is: (i) increased use of an IWRM approach as a basis for land and water management in the SMM sub-basin; (ii) awareness of resource availability constraints and options for development in RBM plans; (iii) improved water resources planning (preparation of sub-basin development plan), monograph, investment strategy and (iv) use of impact assessment procedures – including SEA. Efforts in the NEL sub basins resulted into the scaling up of this approach over the entire NEL basin through the NELSAP Multi Sector Investment Opportunity Analysis whose development was financed through the World Bank NBTF.
- iv. Sub-regional capacity built for improved transboundary water management: Part of the SMM Project funding was used for

institutional strengthening and human resources development for improved transboundary WRM. This result area included a number of training programs on the concept of IWRM and the tools for coordinated management of water and related natural resources. The capacity building activities have significantly improved the skills and competences of various water resources professionals and institutions in the member states at national and local levels, and have enhanced decentralized WRM. Trainings have also enhanced project implementation through improved performance of the beneficiary country participants. The participation of decision makers (TAC and RPSC) in the capacity building programs has contributed to transformation of basin issues and management solutions. Key areas covered in the trainings include: IWRM, negotiation and conflict resolution mechanisms, climate change vulnerability assessment and adaptation, hydrometry, GIS/remote sensing, sediment monitoring, development communication, project finance, environmental and social safeguards, management of land acquisition, resettlement and rehabilitation, etc. Technical study tours were also conducted to other RBOs for purposes of experience sharing (details included in Tables 3). The trainings had a strong inclination on gender and equal opportunities.

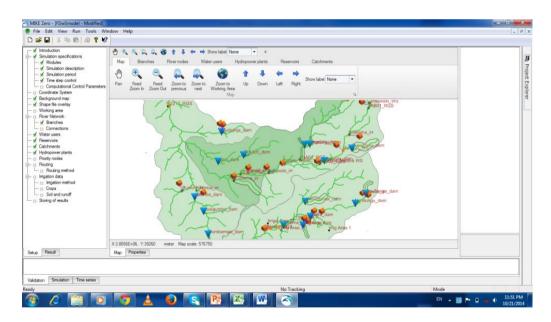


Figure 5: Screenshot of the SMM Baseline Water Allocation Model (SMM, 2014).

Improved community participation in natural resources management: Through this result area, there has been strong community awareness and greater ownership of watershed scale plans of action. Emphasis was placed on public participation in decision-making at all levels. Community based organizations in transboundary catchments in the SMM Sub-basin were also empowered through awareness raising and exchange visits, which contributed to improved local awareness of river basin management issues in the basin community. Through pilot catchment management planning, a bottom up planning approach with strong community level management was achieved. This is being scaled up in the sub basin for catchments of transboundary significance.

Capacity Building Activity		Project Outputs (Participants)	
Tasiaia sin laba waka di Matang Dasawasa Mawasa ang Kitiki (DM/DM). A waka	Women	Men	
Training in Integrated Water Resources Management (IWRM) Arusha	6	2	
Community Based Watershed Management Training, Kabula and Mabanga	60	28	
Sub-catchment Management Training, Lwakhakha Town Council	60	19	
MIKE Basin and Nile DSS Training, Busia	3	7	
Training on data collection and installation of hydrological stations (Quality Control and Assurance), Entebbe	6	1	
Exchange visit to Pangani Basin – for Community Members	14	3	
Study Tour to the Loess Plateau Watershed Rehabilitation Project, China	4	0	
Study Tour to the Niger Basin Authority (NBA)	5	1	
Refresher course for Hydrological Technicians, Instrumentation, Busia	9	1	
Training on the SMM Water Allocation Model, Busia	2	0	
Capacity Building of Nanguba, Bumasa and Wakhungu WRUAs (Kenya) and Luma and Bumasi WR&EM Groups (Uganda), in preparation of the shared Lower Sio Sub-catchment Management Plan, Busia	29	21	
Irrigation Water Management for Kenya (Sitabicha and Chepkaraam Suswo) and for Uganda (Lukhuna) Irrigation Demonstration Schemes, Sirisa	75	53	
Capacity building of WRUAS for Kenya and WR&EM Groups for Uganda in preparation of the shared Middle Malaba Sub-catchment Management Plan	33	25	
Quality assurance and quality control of water resources data, Busia	9	1	
SMM Economic Model, Nairobi	4	1	
Sediment modelling using SWAT Model, Nairobi	5	1	
Management of land acquisition, rehabilitation and resettlement planning, Kampala and Jinja	4	1	
Application of NCORE ESMF and implementation of projects environmental management plans, Arusha	5	1	
Development Communication, Bujumbura	2	2	
Total	334	168	

Table 3: Summary of SMM capacity building activities (NELSAP, 2015b)

2.4.3 Result Area 3: Foundation for water resources investment planning

enhanced

i. *Preparation of a pipeline of investment opportunities advanced:* Under this result area, the SMM Project Team supervised several studies for preparation of regional water infrastructure and watershed management projects. The studies built on previously identified areas from investment strategies and monographs of the sub-basin (developed through financing from Sweden /Norway), and had final outputs of technical designs for prepared water infrastructure and watershed management programs. Among the water infrastructure projects prepared include Maira, Sio-Sango and Bulusambu in SMM sub basin. The project, in collaboration with the NELSAP CU, also supervised preparation of integrated watershed management project in the sub basin. When implemented, the projects will directly contribute towards poverty reduction, food, water and energy security, overall socio-economic development as well as climate adaptation which will boost the proximate local economies.

The current status of the SMM investment projects is presented in the next section.

iv. Sub-catchment management plans prepared: The RBM project under the coordination of NELSAP-CU and in collaboration with the Lake Victoria North Catchment Area /WRMA and Kyoga Water Management Zone / DWRM prepared sub-catchment management plans where infrastructure projects were planned. This builds on the Integrated Watershed Management Program where recommendations were made for rehabilitation of the degraded watersheds of Lwakhakha, Lower Sio and Middle Malaba in the Sio-Malaba-Malakisi sub basin.

Pilot demonstrations on good land and water management practices were set up in order to demonstrate to the sub catchment communities the benefits of land and water management activities including income generating projects. This has contributed to the early buy in by the sub basin stakeholders and ensured sustainability of the projects. Demonstration sites for sustainable land and water management covering about 110 acres were identified, schemes designed and constructed at Lukhuna in Manafwa district, Uganda and is now benefiting 500 people, Chepkaraam-Suswo and Sitabicha (62 acres) in Bungoma County, Kenya with over 450 beneficiaries. Implementation involved construction of intake works, irrigation canals /transmission mains, distribution sub mains and laterals as well as training of irrigation water users. The demonstrations have enhanced community participation in SLM and triggered support from national governments towards implementation of the sub catchment management plans. They will also contribute to improved water and food security/incomes of the communities and enhanced environmental integrity within the selected areas through improved land and water management practices. It is envisaged that the lessons learnt from the irrigation demonstration schemes above will be replicated in the other parts of the watersheds thus enhancing community livelihoods and the environmental integrity of the watersheds.

v. *Small scale investment projects*: As a way of building early confidence among the sub basins community members as preparation for large investments progressed, selected small scale projects were implemented and have contributed to poverty reduction. The Table below highlights small scale investments projects that have been implemented under the SMM RBM project.

Table 4: Small-scale investment projects implemented under the SMM Project(NELSAP, 2015b)

	Project Outputs		
Small-scale investment project	No. of beneficiaries	Country	
Mella Water Supply and Sanitation Scheme	10,000	Uganda	
Angurai Water Supply Scheme	10,000	Kenya	
Malaba Solid Waste Management (Tractor Trailer and Solid Waste Management)	5,000	Kenya	
Busia Sio Community Fish Ponds	250	Uganda	
Lukhuna Small Scale Irrigation Scheme	500	Uganda	
Sitabichwa/Chepkaram-Suswo Small Scale Irrigation Schemes	450	Kenya	



Figure 6: A new clarifier constructed with funding from the SMM project at Angurai Water Treatment Plant in Western Kenya.



Figure 7: Hon. Maria Mutagamba (former Minister of Water and Environment) launching the Mella Water Supply Project in Tororo, Uganda. The project, launched in 2009, was funded by the SMM Project

2.5 Project phases and financing

The key phases of the project are summarized below;

- Phase I (2005-2010): During the first phase (2005-2010), the project was jointly funded by a grant from Sweden and Norway to the tune of US\$ 3.884 million including country contributions while the World Bank advanced parallel funding amounting to US\$ 2.15 million for studies that aimed at leveraging large scale investment projects.
- 2. Bridging Phase (2010-2013): Sweden and Norway provided funding to a tune of US\$ 1.862 million for a two year bridging period to support regional institutional development and preparation of regional water infrastructure projects.
- 3. Phase II (2014-2017): Royal Government of Sweden provided an additional US\$ 1.428 million while World Bank through NCORE / CIWA fund provided US\$ 1.640 to strengthen participatory transboundary river basin planning and support longer term investments through strategic project preparation studies. The total

funding for the pre investment portfolio was therefore US\$ 10.96 million over a period of twelve years.

The first phase of the SMM project was designed as a pre–investment phase including institutional strengthening with minimal provision for small scale investment projects while the Bridging phase and second phases were focusing on pre investment but also transboundary river basin planning.

2.6 Project management and governance structure

The body responsible for day-to-day management of the SMM Project is the Project Management Unit (PMU) based in Kakamega, Kenya. The PMU, which is managed by several regional staff recruited from the two countries, is responsible for budget control and ensuring timely deliverable of project results. The PMU is administratively managed by NELSAP-CU, while its activities are supervised by the countries through a hierarchical arrangement of governance bodies comprising of the Nile Equatorial Lakes Council of Water Ministers (NELCOM), the Nile Equatorial Lakes Technical Advisory Committee (NELTAC) and the Regional Project Steering Committee (RPSC) (NELSAP, 2015a). The functions of each of these bodies are described in Chapter 4.

2.7 Planned and on-going investment projects

The current status of investment projects initiated or promoted under the SMM Project is summarised in the Table below.

Table 5: Status of the Sio Sango Irrigation Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Sio Sango Irrigation	The Sio-Sango site is located on River Sio,	2,000 farmers;	US \$ 35	Feasibility, ESIA/RAP studies
Development and	and covers Bumula Sub County in	20,000 to	million	being implemented under
Watershed	Bungoma County and Matungu Sub	benefit from		CIWA – World Bank funded.
Management Projects	County in Kakamega County in Western	water supply		To be completed by April
(Kenya)	Kenya. The proposed project consists of	10,000 to get		2017
	a dam and an irrigation scheme covering	direct		
	part of Bumula Sub County and Matungu	employment		Project designs and tender
	Sub County in Bungoma and Kakamega			documents completed,
	respectively. Specific project attributes			ready for implementation.
	include: (i) a 21m height earth fill			
	embankment dam, with a storage			Funding for implementation
	capacity of 3.92 MCM; (ii) 1,700 ha of			not yet secured.
	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.			

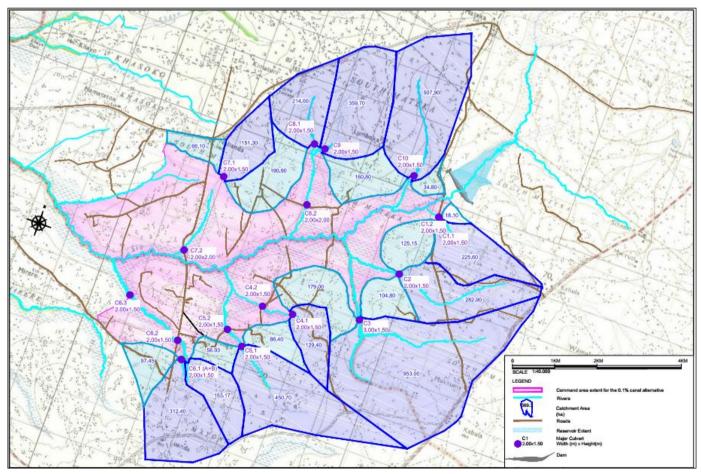


Figure 8: The project area of the Sio Sango Irrigation Development and Watershed Management Projects

Table 6: Status of the Shared Soono Hydro-Electric Power Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Shared Soono Hydro	The Project is part of the investment	20,000	US \$	Project identification was
Electric Power (HEP)	programs prioritized by Uganda and	direct and	11.5	undertaken in 2012 during
Project (Kenya/	Kenya for preparation and	indirect	million	the preparation of Lwakhakha
Uganda) for Power	implementation. Identification was	beneficiari		Sub Catchment Management
sector, Water	undertaken in 2012 during the	es		Plan by the Manafwa district
resources	preparation of the Lwakhakha Sub			Local Government and
development (Hydro	Catchment Management Plan.The			Bungoma county government
Power generation),	project when implement is expected			in collaboration with Sio-
Industry, and Trade	generate 1.9 MW of power and to will			Malaba-Malakisi River Basin
	benefit over 10,000 people across the			project/NELSAP.
	neighbouring districts of Uganda and			
	Bungoma County in Kenya directly and			Requires detailed
	indirectly. Expected impacts include			investigations, feasibility
	reduced frequency of power outages,			study and Designs
	improved distribution infrastructure,			
	creation of employment opportunities,			Funding for implementation
	improved incomes and livelihoods,			not yet secured.
	environmental protection, and improved			-
	agricultural processing.			

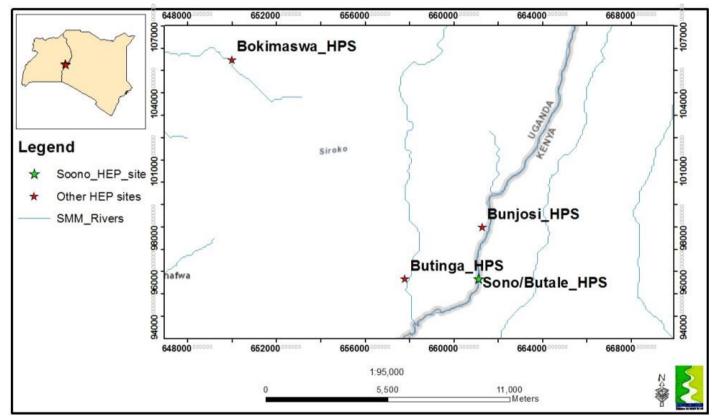


Figure 9: Location map of the Shared Soono Hydro-Electric Power Project.

Table 7: Status of the Angololo Multipurpose Water Resources Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Shared Angololo	The proposed Angololo dam site is located on	20,000	US\$ 67	Prefeasibility studies
Multipurpose	River Malaba, at coordinates; E 0645160, N		million	undertaken, Feasibility
Water Resources	0076706. The selected point is specifically located			studies and design,
Development	on the Kenyan-Uganda border partly in Mella Sub			Environmental and Social
Project	County of Tororo district, Eastern Uganda and			Impact Assessment and
	partly in Teso district, Western Kenya and the spot			preparation of a resettlement
	has a ground elevation of 1192 m.a.s.l. The			Action Plan (RAP) are planned
	proposed 22m high dam with a storage capacity of			to be undertaken
	13.0 million cubic meters would pprovide water			
	for irrigation (2500ha), livestock watering and			Requires detailed
	domestic use to the area(12,000 people); it has a			investigations, feasibility
	potential for hydropower development, reservoir			study and Designs
	fisheries development, recreation, flood control			
	and/or drought mitigation, navigation. The dam			Funding for implementation
	has a significant risk due to its high storage			not yet secured
	capacity and there are some inhabitants			
	downstream in the river valley. The spillway design			
	discharge will be Q200. The proposed appropriate			
	dam design shall be a composite dam; concrete			
	gravity part on the right hand side and rock-fill to			
	the left hand.			

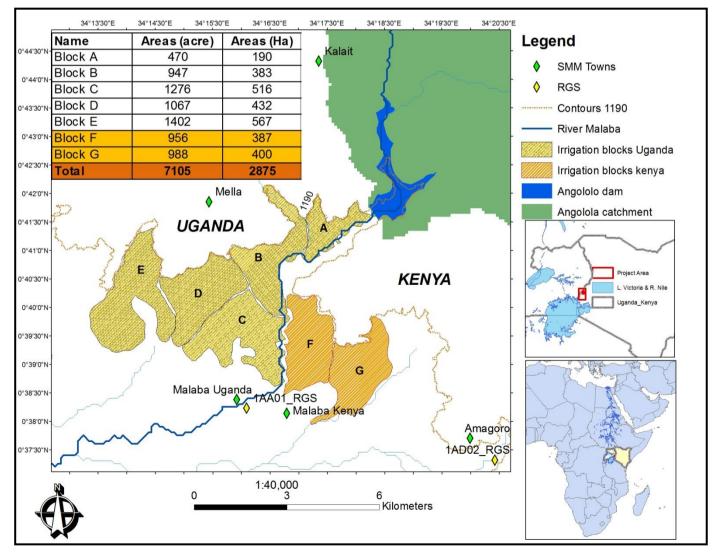


Figure 10: Location map of the Angololo Multipurpose Water Resources Project.

Table 8: Status of the Maira Dam Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Maira Dam Project/Lower Sio irrigation Scheme (RPT, 2012)	The project is located in Samia and Nambale districts, Busia County. The Project lies within country sectoral plans for Kenya and is part of the investment programs prioritized by Kenya for implementation. It will command an irrigation area of 2,000 ha and benefit 3,000 people. Expected benefits Include creation of employment opportunities, improved incomes and livelihoods, environmental protection, hydropower provision and poverty reduction.	3,000	US \$ 12 million	Feasibility/preliminary designs and ESIA/RAP, prepared under World Bank – NBTF (2009-2012). Studies completed in December 2012. Lower Sio irrigation scheme to be served by Maira dam is under construction with GOK funding through National Irrigation board. Partial funding for irrigation infrastructure secured through Government of Kenya. Funding for dam infrastructure not yet secured.

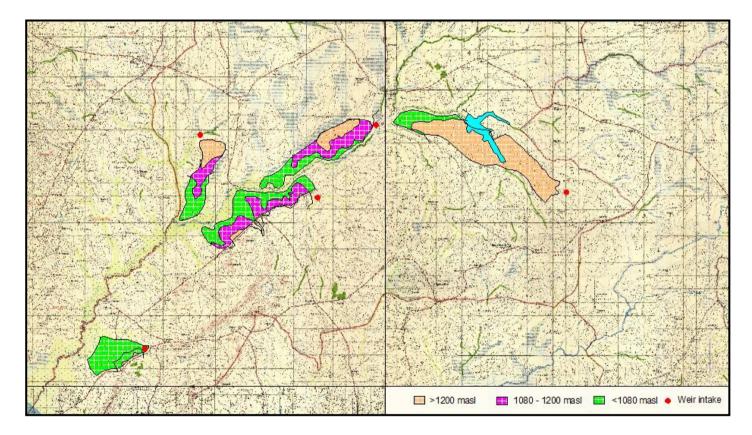


Figure 11: Location map of the Maira Dam Project.

Table 9: Status of the Nyamatunga Irrigation and Watershed Management Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Nyamatunga Irrigation Development and Watershed Management Project	The project is located in Mella sub county in Nyamatunga village, Tororo district in Eastern Uganda. Expected benefits include flood control, increased agricultural production through irrigated agriculture (412 ha), provision of water for livestock watering, and domestic water supply (10,000 people). The proposed project will contribute to improved water availability through created storage, food security, energy security, reduction of environmental degradation and adaptation to climate change. It is targeting community livelihoods improvement, reduction of poverty and boost to local and regional economic development but also contribute to climate resilient growth.	10,000	US \$ 14 million	Prefeasibility studies undertaken, Feasibility studies and design, Environmental and Social Impact Assessment and preparation of a Resettlement Action Plan (RAP) are planned to be undertaken. No funding secured as yet for implementation

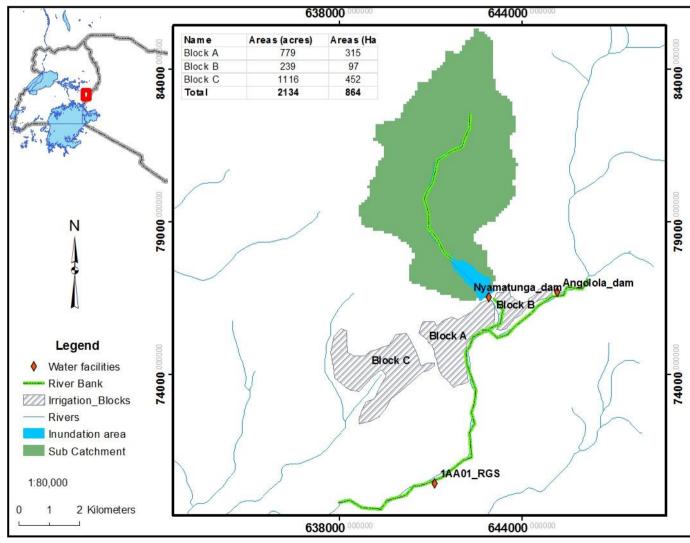


Figure 12: Location map of the Nyamatunga Irrigation and Watershed Management Project.

Table 10: Status of the Kacholia Dam Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Kocholia dam /Amagoro- Amoni Irrigation Development and Watershed Management Project (Newplan, 2010)	The project is located in Teso district, Busia County in Western Kenya. The Project lies within the sectoral plans for Kenya and is part of the investment programs prioritized by Kenya for implementation. It will command an irrigation area of 3,500 ha and benefit 5,000 people. Expected benefits Include creation of employment opportunities, improved incomes and livelihoods, environmental protection, hydropower provision and poverty reduction.	5,000	US \$ 59.5 million	The feasibility study and design of the irrigation scheme has been undertaken by Government of Kenya through the National Irrigation Board. The dam studies and design, Environmental and Social Impact Assessment and preparation of a Resettlement Action Plan (RAP) are planned to be undertaken. AfDB and Korean EXIM Bank committing to support in the design of the dam and implementation of the project.

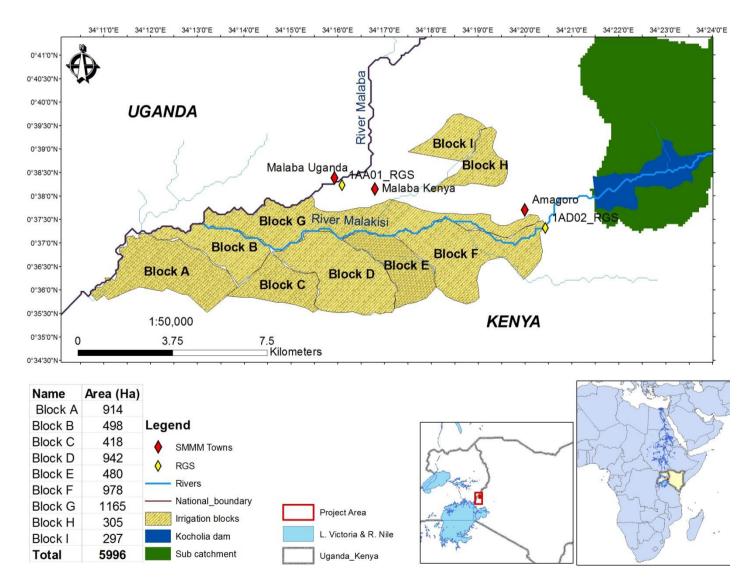


Figure 13: Location map of the Kacholia Dam Project.

Table 11: Status of the Lirima Irrigation and Watershed Management Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Froject Name Lirima Gravity Fed Irrigation Development and Watershed Management Project	The project is located in Manafwa district in eastern Uganda and is part of the investment programs prioritized by Uganda for preparation and implementation. Identification was undertaken in 2012 during the preparation of the Lwakhakha Sub Catchment Management Plan. It is expected to benefit at least 5,154 people directly or indirectly through creation of employment opportunities, water for domestic consumption, agricultural production, and livestock and fisheries production. The outcomes of these benefits will be enhanced household incomes and livelihoods, environmental protection /watershed management,	beneficiaries 5,154	Requirement US \$ 1.5 million	Project status Detailed identification done, Feasibility studies and design, Environmental and Social Impact Assessment and preparation of a Resettlement Action Plan (RAP) are planned to be undertaken. This project has been integrated within the Mpologoma Catchment Management Plan. No funding secured yet for implementation.
	boosted agricultural production to match the ever increasing human populations.			

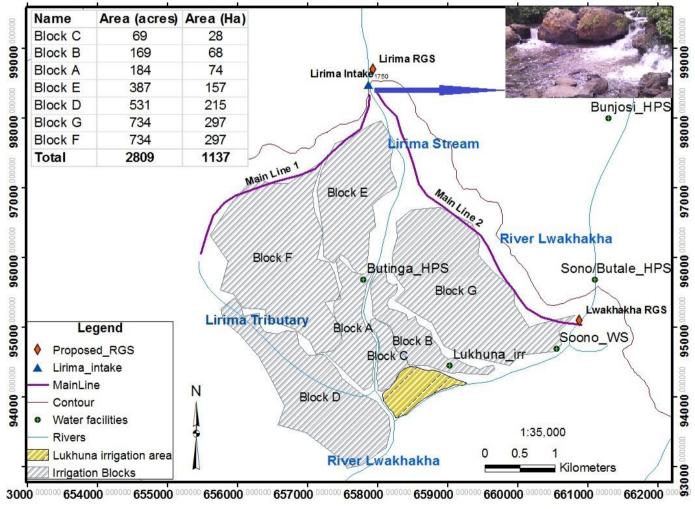


Figure 14: Location map of the Lirima Irrigation and Watershed Management Project.

Table 12: Status of the Bukhabusi Irrigation and Watershed Management Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Bukhabusi Irrigation Development and Watershed Management Project	The project is located in Manafwa district in eastern Uganda and is part of the investment programs prioritized by Uganda for preparation and implementation. Identification was undertaken in 2012 during the preparation of the Lwakhakha Sub Catchment Management Plan. It is expected to benefit at least 6,200 people directly or indirectly through creation of employment opportunities, water for domestic consumption, agricultural production (480 ha), and livestock and fisheries production. The outcomes of these benefits will be enhanced household incomes and livelihoods, environmental protection /watershed management, boosted agricultural production to match the ever increasing human populations.	6,200	US\$3 million	Detailed identification done, Feasibility studies and design, Environmental and Social Impact Assessment and preparation of a Resettlement Action Plan (RAP) are planned to be undertaken. This project has been integrated within the Mpologoma Catchment Management Plan. No funding secured yet for implementation.

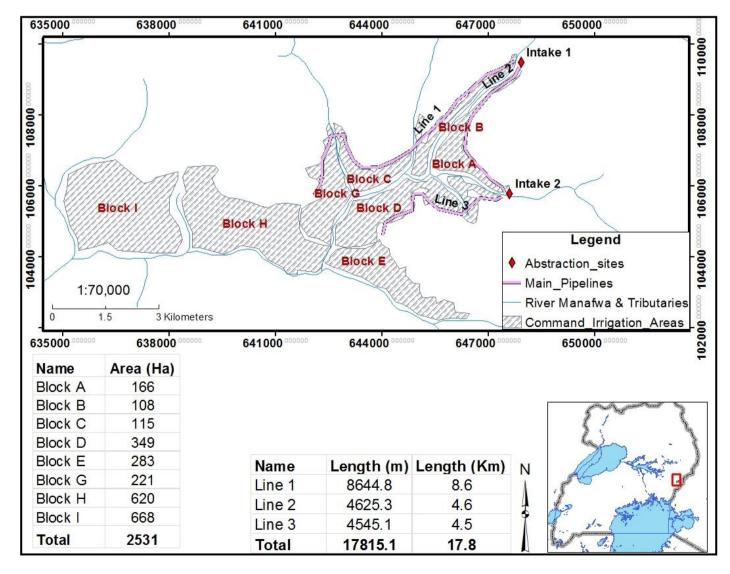


Figure 15: Location map of the Bukhabusi Irrigation and Watershed Management Project.

Table 13: Status of the Tisti Irrigation and Watershed Management Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Tisti Irrigation Development and Watershed Management Project	The project is located in Cheptais district in Bungoma County Kenya and is part of the investment programs prioritized by Kenya for preparation and implementation. Identification was undertaken in 2015 by the Sio Malaba Malakisi river basin project in collaboration with Bungoma county government. It is expected to benefit at least 3100 people directly or indirectly through creation of employment opportunities, water for domestic consumption, agricultural production (1,345 ha), and livestock and fisheries production. The outcomes of these benefits will be enhanced household incomes and livelihoods, environmental protection /watershed management, boosted agricultural production to match the ever increasing human populations.	3,100	US\$2 million	Detailed Identification done, Feasibility studies and design, Environmental and Social Impact Assessment and preparation of a Resettlement Action Plan (RAP) are planned to be undertaken. This project has been integrated within the Mpologoma Catchment Management Plan. No funding secured yet for implementation.

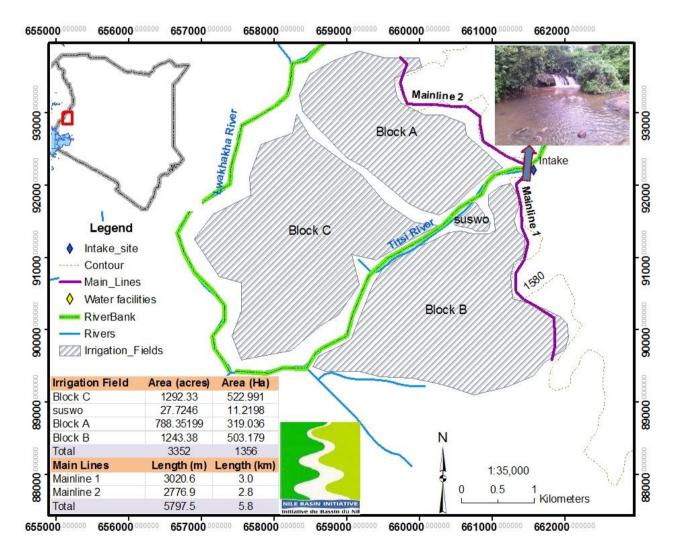


Figure 16: Location map of the Tisti Irrigation and Watershed Management Project.

Table 14: Status of the Nyabanja Irrigation and Watershed Management Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Nyabanja Irrigation Development and Watershed Management Project (1,700 ha)	The project is located in Nabuyoga sub- county, Tororo district in Eastern Uganda. Expected benefits include flood control , increased agricultural production through irrigated agriculture (1700ha), flood control ,provision of water for livestock watering, and domestic water supply(12,000 people). The proposed project will contribute to improved water availability through created storage, food security, energy security, reduction of environmental degradation and adaptation to climate change. It is targeting community livelihoods improvement, reduction of poverty and boost to local and regional economic development but also contribute to climate resilient growth.	12,000	US\$24 million	Prefeasibility studies undertaken, Feasibility studies and design, Environmental and Social Impact Assessment and preparation of a Resettlement Action Plan (RAP) are planned to be undertaken. This project has been integrated within the Mpologoma Catchment Management Plan. No funding secured yet for implementation.

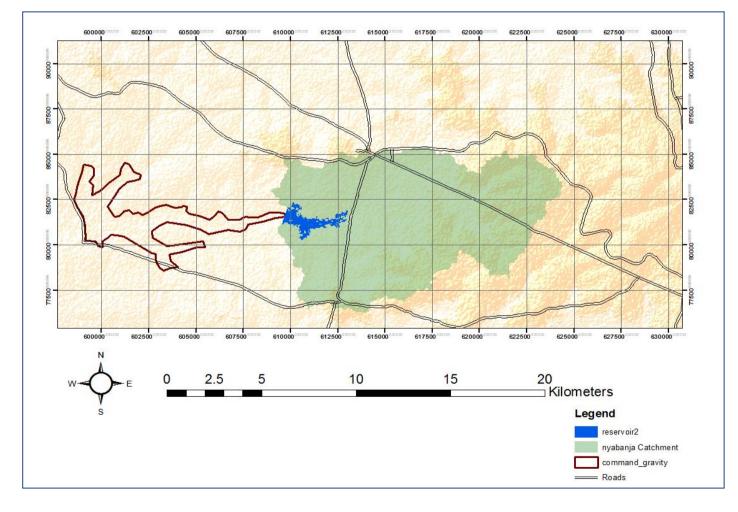


Figure 17: Location map of the Nyabanja Irrigation and Watershed Management Project.

Table 15: Status of the Busia cross border pollution control project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Cross Border Busia Pollution Control Project	The project is located in Sio sub basin and is across boarder town project shared between Kenya and Uganda. It a priority project to both Kenya and Uganda and is within the sectoral plans for the two countries. Expected benefits to the 0.5million Busia inhabitants include improved water quality through reduction in sediment loading, clean and healthy environment – aesthetics and lessened burden to communities due to improved health. The proposed project seeks to refurbish or restructure storm water drainage and solid waste management systems and support financial and institutional reforms that are required to enable the institutions mandated to manage the infrastructure to deliver the required services efficiently and sustainably. It is envisaged that the proposed project will improve living conditions and health of the people in Busia in Kenya and Uganda, enhance water quality of the Sio river and surrounding lake and wetland, promote long term economic growth and provide an adaptation mechanism to climate change through the design of resilient infrastructure.	500,000	US \$ 5.34 million	Feasibility studies undertaken, detailed design Environmental and Social impact assessment and preparation of a Resettlement Action Plan (RAP) planned to be undertaken. Under consideration for funding within Lake Victoria Environmental Management Project.

 $\textbf{Table 16}: Status \ of the Busia \ cross \ border \ pollution \ control \ project$

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Malaba Cross Border Pollution Control Project.	The project is located in Malaba sub basin and is across boarder town project shared between Kenya and Uganda. It a priority project to both Kenya and Uganda and is within the sectoral plans for the two countries. Expected benefits to the 0.5 million Tororo/Teso North inhabitants include improved water quality through reduction in sediment loading, clean and healthy environment – aesthetics and lessened burden to communities due to improved health. The project seeks to identify gaps in the existing sanitation infrastructure and hence rehabilitate and/or restructure the storm water drainage systems in the urban areas and put in place an efficient and sustainable solid waste management system within the cross border town of Malaba. Specifically the proposed	500,000	US \$ 9.7 million	Feasibility studies ,detailed design Environmental and Social impact assessment and preparation of a Resettlement Action Plan (RAP) undertaken The project has been integrated within the Mpologoma Catchment Management Plan No funding has been secured yet for implementation/

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
	project will supplement and extend the			
	solid waste and storm-water			
	management for the cross border town			
	of Malaba by addressing a number of			
	issues viz. (i) rehabilitate and/or			
	restructure the drainage systems in the			
	selected urban areas to address the			
	limited investment in urban drainage			
	systems; (ii) finance and address			
	institutional challenges facing the			
	construction and operation of the			
	drainage and flood control infrastructure			
	and; (iii) The investment will help			
	establish a model that ensure sustained			
	public health and improved			
	environmental outcomes for all its			
	citizens and enhancement of water			
	quality of Malaba River, lakes and			
	wetlands downstream of Malaba town.			

Table 17: Status of the Lwakhakha Cross Border Pollution Control Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Lwakhakha Cross Border Pollution Control Project	Under this project, Lwakhakha Town Council and Bungoma County Government will support implementation of storm water and solid waste management interventions in the cross border town of Lwakhakha thereby contributing to improved water quality in Lwakhakha River.	10,000	US \$ 2.0 million	No funding secured for project implementation

Table 18: Status of the Transboundary Sio-Siteko Wetland Restoration Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Transboundary Sio- Siteko Wetland Restoration Project	The Sio-Siteko wetlands lie along the Sio river system, which runs along the border with Uganda and Kenya, in the Sio-Malaba-Malakisi catchments. The total wetland area is estimated at 10,000 ha. The Sio-Siteko wetlands provide important ecosystem services. Local livelihoods are sustained through the capture and culture of aquatic plants (e.g., reeds), and fish species. Expected benefits include improved coordination of wetland functions and integration of management of wetland protection, biodiversity conservation, and watershed management. Improved alternative livelihood for communities.	5,000	US\$8 million	Wetland management plan prepared under Nile basin/NTEAP project .Detailed project preparation planned to be undertaken

 Table 19: Status of the Sio-Malaba-Malakisi Integrated Watershed Management Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Sio-Malaba- Malakisi Integrated Watershed Management Project	The Sio-Malaba-Malakisi is a shared transboundary resource of Kenya and Uganda. The basin consists of the Malaba-Malakisi catchment, which originates from the southern slope of Mount Elgon and drains towards Lake Kyoga, and the Sio catchment, which originates in Bungoma and drains into Lake Victoria. The basin has experienced significant land use changes over the past years due to population pressure; as people continue to clear forests and drain wetlands to create new agricultural land and establish new settlements	2,000,000	US\$70.2 million	Feasibility studies undertaken ,detailed design and project preparation planned to be undertaken
	The rationale of this project is to link catchment area rehabilitation with improving livelihoods in adjacent comminuties. The project will assist communities to embark on a more sustainable development path where they will be able to rationally use their surrounding environment. Eexpected benefits include; increased farm production, reduction in soil fertility loss, enhanced catchment a forestation, increased public awareness of the environmental concerns of the shared ecosystems and reduced greenhouse gas emissions.			

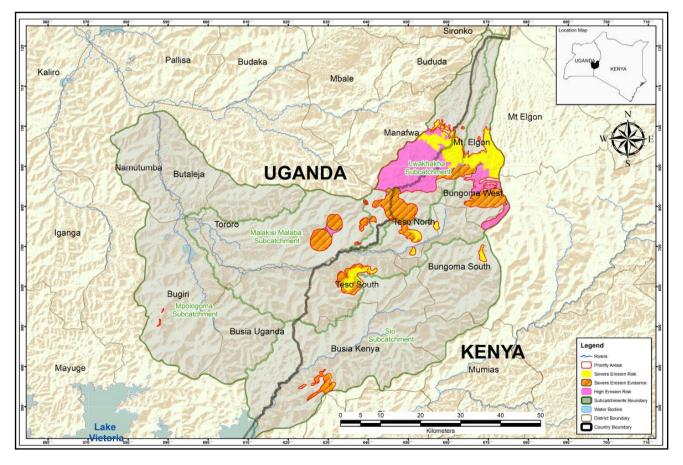


Figure 18: Location map of the Sio-Malaba-Malakisi Integrated Watershed Management Project.

Table 20: Status of the Lwakhakha Sub Catchment Uganda Hot Spot Mapping Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Lwakhakha Sub Catchment Uganda Hot Spot Mapping Project	 Hotspots identified and proposed strategic interventions: a. Upper Lwakhakha Hotspot – Catchment Management and Pollution Control Program. The upper Lwakhakha hotspot comprises of parts of Soono village and the degraded parts of the Mt Elgon national park that are already being used as farmlands. This hotspot is characterized of steep slopes with high rates of soil erosion, poor soil and land management practices both leading to high sediment loading of River Lwakhakha. Onion growing is dominant in this area, a practice that uses a lot of fertilizers and herbicides. Villages in this hotspot notably Soko Muginga trading Centre have poor sanitation with open defecation practiced. This hotspot is of strategic importance because of the hotspot areas have very fertile soils with the potential of being the food basket of region, intake for the Tororo – Manafwa Water supply GFS is located in this hotspot and Lukhuna Irrigation GFS is as well located in this hotpot. b. Lwakhakha Town Council Hotspot – Integrated Solid Waste and Storm Water Management System. Lwakhakha TC has an existing piped water supply system that covers the entire town. The surrounding wards also have piped water and other standalone water sources like boreholes. However, during the construction of the Water supply system, waste management was not considered and as such the town is faced with waste management issues. There are no adequate sanitation facilities in the TC and the TC has no faecal sludge treatment plant. The residents ranked highly issues related to sanitation as their single most dire issue that should be addressed. c. River Lirima Hotspot. The River Lirima hotspot sord willages. Rivers Lirima, Taso and Laso lie in this hotspot thas rates of soil erosion and river bank degradation. This hotspot Issues, strategic importance because it has the intake for the Lirima GFS. The Lirima hotspot Issues, strategic implications and intervention measures. 	500,000	US \$ 1.5 million	Project preparation studies undertaken. Detailed Designs for infrastructure investments to be undertaken Some elements under implementation by Kyoga Water Management Zone Funding required for projects implementation

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
	 Ecosystem Conservation/ Watershed rehabilitation measures – catchment afforestation, soil conservation, riverbanks protection, and livelihood improvements interventions. 			
	 Capacity development – Institutional and human resources development (Water Management Zone, Catchment Management organization, Sub Catchment Management Organization, Stakeholders Forum, Communities). Integrated solid waste and storm water management 			

Table 21: Status of the Lukhuna Small Scale Irrigation Project

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Lukhuna Small Scale Irrigation Scheme Project	Lukhuna Small Scale Irrigation Scheme was developed as one of the projects identified during the preparation of Lwakhakha shared sub catchment management plan. The scheme involved the construction of a simple diversion weir across Lwakhakha River and transmission main, distribution system and laterals for supporting irrigation of 100 hectares. This is a community based scheme which is planned for up scaling.	1,000	US \$ 0.2 million	Phase one of implementation undertaken. Scheme planned for up scaling to cover an additional 200 ha of irrigation land and benefit 1,000 people. No funding secured for up scaling of the project.

Table 22: Status of the Chepkaraam Suswo and Sitabicha Irrigation projects

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Chepkaraam Suswo and Sitabicha Irrigation demonstration projects	In partnership with Bungoma County and communities of Chepkaraam Suswo and Sitabicha villages, the SMM Project in collaboration with Bungoma county government established a demonstration on simple irrigation technology diverting water from Tisi and Malakisi rivers to support small scale irrigation covering 30 acres, benefiting 350 individual in the targeted Chepkaraam Suswo and Sitabicha villages. The project cost was 45,000 US\$. There exist a potential for expansion to 435 ha to benefit more communities.	5,000	US \$ 0.2 million	Phase I of implementation undertaken. Scheme planned for up scaling to cover an additional 200 ha and benefit 800 people. No funding secured for up scaling

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
Lower Sio Shared Sub Catchment Management Plan	Lower Sio sub-catchment is a trans-boundary catchment area covering parts of Kenya and Uganda. It is located at longitude 34.043180 E and 34.015680 E and latitudes 00.201930 N and 00.223620 N covering an area of about 405.7 km ² . The Sio River originates North West of Bungoma town, and drains into Lake Victoria. The drainage pattern of Sio River catchment is dendritic and the drainage density is high. The main stream of Sio River stretches approximately 85 km from the source in Kenya to the mouth in Sio Port, which is at the Kenya/Uganda border.	150,000	US \$ 12.7 million	Some elements under implementation by Victoria Water Management Zone and Lake Victoria North Catchment Area. No funding secured for implementation
	Lower Sio sub-catchment is endowed with several natural resources including rivers, biodiversity, land and wetlands. The local people directly or indirectly exploit these resources to meet their daily livelihood needs. However there is evidence of unsustainable exploitation of the natural resources that has increased pressure on the integrity of the very resources that support local people's livelihood. The catchment is facing several challenges including poor soil management, encroachment to wetlands and riparian land, high poverty rates among the local people, unsustainable sand harvesting, inadequate waste water management from the urban and market areas, poor sanitation services, urbanization, population increase, inadequate capacity and awareness to participation in sub-catchment management by the local people, extreme weather events due to climate change and clearance of vegetation cover.			
	Mumanya stream Nanguba watershed; rehabilitation of the Wakhungu watershed, rehabilitation of Bumasa Watershed, Madibira micro-catchment conservation, Nabongo micro catchment conservation, Yaala Singo micro-catchment conservation, Rehabilitation of Buhehe- Masinya watershed, and rehabilitation of Gusumo watershed.			

Table 23: Status of the Lower Sio Shared Sub Catchment Management Plan

Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
1iddle Malaba hared Sub atchment 1anagement Ian	Middle Malaba sub-catchment is part of the larger Malakisi-Malaba-Mpologoma River Basin and covers a total area of 364 km ² .The sub-catchment covers part of Teso South and Teso North Sub-counties in Kenya and Mella, Kwapa, Malaba Town Council, Tororo Municipality and Osukuru sub-counties in Uganda. The sub-catchment on the Kenyan side extends from Moding on the north to Amongura on the south whilst stretches from Morukebu in Kwapa sub-county on the north to Kayoro in Osukuru sub-county to south on the Uganda side. The sub- catchment is of critical economic importance in the provision of water to a number of productive purposes, including: agriculture, fisheries, transport and rural users along the length of the river in both countries. The main river in the sub-catchment is River Malaba; however, there are other streams that originate within the sub- catchment and drains into R. Malaba. Interventions and	1,000,000	US \$ 10.7 million	Some elements under implementation by Kyoga Water Management Zone and Lake Victoria North Catchment Area. No funding secured for implementation
	expected outputs will include:			
	 Livelihoods and Socio-economic Development Trans-boundary Community Based Water Resource Management established and livelihoods from CBNRM improved 			
	 Enhance conservation agriculture in the sub- catchment and livelihoods from agriculture improved 			
	 Increase food production through introduction of irrigation farming to complement rain fed agriculture 			
	 Livestock management and productivity in the sub- catchment improved 			
	 Sustainability of fisheries in the river system ensured and small scale aquaculture production expanded 			
	 Water and sanitation supply to sub-catchment communities improved through exploring other water resource infrastructure and improved sanitation facilities 			
	Water Resources Management			
	 Improve Sub-catchment's hydrological and meteorological monitoring system to determine surface water resource yields, predict drought and flood events 			
	 Groundwater assessment and monitoring enhanced in the sub-catchment 			
	 Common guidelines and regulations for water demand management and licensing of water abstraction approved and implemented 			
	 Environmental water requirements should be agreed upon and observed in the sub-catchment. 			
	 Early warning system should be developed in the areas which are prone to floods 			

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Project Name	Description	Target No. of beneficiaries	Investment Requirement	Project status
	• The communities in the sub-catchment should adopt best management options to reduce the impacts on water resources.			
	Land Management			
	• Land use planning on the farms that allows farmers to objectively assess how they use their land and therefore make use of the gross margin analysis to select their agricultural/economic activities			
	• Land use planning for the riparian areas which will allow the riparian land owners to make economic use of the riparian land while conserving it.			
	 Adopt sustainable land use management practices such as contour farming to reduce soil erosion and enhance soil fertility. 			
	Environment and Biodiversity			
	Biodiversity protection			
	 Wetland protection through sustainable use of the wetlands 			
	 Increasing vegetation cover through afforestation, re- afforestation and agro-forestry. 			

2.8 Mainstreaming SMM Projects in national programming frameworks

2.8.1 The process of mainstreaming

Within each of the cooperating countries, there are several agencies and authorities at central and local government levels that provide entry points for uptake, upscaling or implementation of SMM investment projects and initiatives. These agencies and authorities are named, characterised and grouped under Section 6 below.

For the SMM projects to be mainstreamed within the different agencies and authorities of the two governments, they need to be relevant to the mandates and missions of the agencies and departments. This is not a problem for the SMM project as the SMM River Basin Project has been dealing with core issues related to socio-economic development and environmental management, which are issues that resonate strongly with central and local government institutions of the two countries.

Once taken up by agencies and authorities, how quickly the projects access funding depends on how well they perform under internal prioritization processes. Different sectors and institutions employ different prioritization criteria, but these commonly include relevance to overarching national development goals as stated in vision documents (Kenya Vision 2030 and Uganda Visions 2040), and contribution to medium-term goals and sector specific targets on service delivery, poverty reduction, socio-economic development and environment protection. Other criteria include level of involvement of stakeholders and contribution to equity, gender parity, climate change adaptation, peace and good governance.

The SMM projects are well conceived and therefore able to score strongly against prioritization criteria. Many have hence already made it into sectoral investment/development plans (mid-term and annual plans and budgets) and accessed domestic and external funds committed by the governments and development partners to relevant sectors as described in the project status briefs above and further elaborated below.

2.8.2 Already mainstreamed projects

As explained above, mainstreaming the SMM Projects into central government and local government (county or district) frameworks for development planning and budgeting in Kenya and Uganda is an important avenue through which resources can be mobilized for implementation of the projects. On the Uganda side, all of the investment projects identified and prepared under the SMM Project have been mainstreamed into the Mpologoma Catchment Management Plan (CMP), which was prepared in March 2017 by the Ministry of Water and Environment with active participation of district local governments, water and environment resource user groups and other stakeholders. The Mpologoma Catchment lies in the Kyoga Water Management Zone (WMZ). By the inclusion in the Mpologoma Catchment Management Plan, the SMM Projects have formally become part of the government's development plans, and are eligible to receive funding subject to resources availability and internal prioritization processes in the Ministry of Water and Environment. A similar situation prevails in Kenya where most of the projects have been mainstreamed in the planning frameworks of the Water Resources Management Authority, the National Irrigation Board, Water Services Board and Country governments.

The notable projects that have already received financial support or are currently under consideration by the two countries include the following:

- a. *Maira/Lower Sio Irrigation Development Project*. This project has been included in Kenya's National Irrigation Master Plan and is currently under implementation by the Ministry of Water and irrigation through National Irrigation Board with domestic funding.
- b. Kocholia/Upper Malakisi Multipurpose Water Resources Development Project. This project has also been mainstreamed into the National development plan. As result, the Ministry of Water and Irrigation/National Irrigation Board has undertaken feasibility study and design of the Irrigation scheme with AfDB and Korean EXIM Bank committing to support in the design of the dam and implementation of the project.
- c. Sio-Sango Irrigation and Watershed Management Project. This project has been included in the Bungoma County Government Integrated Development Plan and also within the National Irrigation Development Plan with the Ministry of Water and Irrigation considering mobilizing resources for implementation through the Turkish and Norwegian public private sector arrangements.
- d. Middle Malaba/ Komuria, Lwakhakha/Chebombai, Lower Sio (Nanguba) and Middle Malakisi /Toloso Sub Catchment Management Plans. These SMM sub-catchment plans were prepared under the framework of Water Resources Management Authority, Kenya and some interventions have subsequently been funded through Water Services Trust Fund (WSTF) and other agencies such as World Vison and County government of Busia.
- e. Lwakhakha and Middle Malaba Sub-Catchment Management Plans. These plans have been incorporated in the Mpologoma Catchment Management Plan prepared by Uganda. Funds to a tune of US\$1million under Water Management and Development Project

Phase II have been earmarked for implementation of sub catchment rehabilitation measures in Lwakhakha hotspots.

- f. *Tree planting under the Lwakhakha and Middle Malaba catchments.* Tree planting activities in the two catchments initiated under the SMM project have been taken up and funded by the Government of Uganda through the Kyoga Water Management Zone.
- g. *Busia Pollution Control Project.* This project is being considered by Uganda for incorporation within the Lake Victoria Environmental Management Programme Phase III.
- h. Nyabanja, Nyamatunga, Bweboya, Lirima and Bukhabusi Irrigation Development and Watershed Management Projects. The Government of Uganda through the Ministry of Water and Environment is in the process of considering the above projects for further investigations and eventual implementation under the Water Management and Development Project funded by the World Bank.

2.9 Gaps and required follow-up

Possible areas of further action in the SMM Intervention areas are summarised below. The table below is the same one used under section 2.3, but now has a column on Gaps and Needs.

Project component	Project Achievements	Gaps and Needs
1. Joint Sustainable Cooperative Management Framework (Transboundary water governance)	 Joint sustainable cooperative framework defined and agreed upon A transboundary management cooperative framework including a management strategy established for the river catchments. Institutional governance structures taking into consideration, strategic objectives and roles and responsibilities of the sub basin secretariat redefined Memorandum of Understanding for integrated management of the transboundary SMM basin drafted negotiated and signed for joint management of the Sio-Malaba- Malakisi basin 	 Although the Cooperative Management Framework was prepared, discussed, agreed upon and signed, there is no financial provision for implementation of the MoU. Accordingly, there is need for operationalization of the MoU and addressing issues of financial sustainability. Need for operational support to transboundary water governance structures (e.g. RPSC members, coordination teams, WRUs, WREGs, etc.) as defined in the MoU
2. Investment opportunities identification in the catchments (Regional water	 Sio-Malaba-Malakisi River Basin Monograph and Database developed Simple Models & scenarios for optimization of the basins water resources developed 	 Resource mobilization for implementation of the prepared investment projects to meet the project objectives –poverty reduction/ livelihood improvement and reversal of environmental

Table 25: Potential gaps and areas for new interventions in the SMM sub-basin

Project component	Project Achievements	Gaps and Needs
infrastructure planning and development)	 Investment strategy developed , investment opportunities identified and documented Pre-feasibility studies undertaken with 27 potential multipurpose water project sites identified within the SMM basin. Several bankable regional water infrastructure projects prepared namely Maira multipurpose water project, Sio Sango irrigation and watershed project; and Busia, Bungoma, Lwakhakha and Malaba Pollution control projects. Continued building of water resources information systems, and linkages the Nile DSS to enhance water resources planning Lower Sio, Middle Malaba and Lwakhakha Shared Sub Catchment Management Plans were jointly developed and launched by both Kenya and Uganda in 2014. 	 degradation Detailed investigations to be undertaken for the identified projects to elevate them to implementation status Development of bankable proposals out of the Lower Sio, Middle Malaba and Lwakhakha sub catchment management plans, and marketing them to development partners for possible funding in consultation with the countries. Need for continuous capacity building of the Water Resources User Associations (WRUAs) and Water Resource and Environmental Groups (WREGs) which were extensively involved in the development of the sub catchment management plans
3. Capacity building at all levels for sustainable management of Water Resources (institutional strengthening)	 Staff trained at national and basin levels and catchments offices strengthened Community awareness raising about environmental management issues and development options Catchment-wide sustainable hydro- meteorological network and water quality monitoring established (40 digital rain gauges installed,8 AWS ,12 RGS installed and operational) Sio Malaba Malakisi Water Allocation Mode developed 	 Need for strengthening of the operation and maintenance of the water resources monitoring network in the SMM sub-basin by the respective National Meteorological and National Hydrological Services in the two countries. Continued training to relevant stakeholder agencies at local and regional levels to strengthen water resources planning and management Need for additional support to enhance the functionality and capabilities of the SMM Water Allocation Model, and provision of technical support to key stakeholders like LVNCA and Kyoga Water Management Zone to facilitate their application of the tool in development of resource use scenarios, assessment of environmental flows, assessment of water availability in different climate change scenarios, etc. Need to extend the application of the Water Allocation Model to other sub basins within the region
4. Small scale demonstration projects	 Storm Water Drainage Master Plan for Malaba Town, Uganda Mella Water supply and sanitation Project Tororo, Uganda Community fish ponds, Busia, Uganda 	 Scale up of the demonstration projects to provide tangible benefits to more community members, manage expectations as communities wait for launch of the larger prepared projects, an increase

Project component

3. INTERVENTIONS BY OTHER PROJECTS IN THE SMM SUB-BASIN

3.1 Project to Improve on Food Security through Increased Agricultural Productivity in Western Kenya (FSIAP)

The objective of this project, which is funded by KfW and the Government of Kenya, is to improve food security and drought resilience in Western Kenya through development of infrastructure for smallholder irrigation, rural transportation and produce marketing. The project is part of the development cooperation programme "*Food Security and Drought Resilience in Kenya*" of the German Development Cooperation (GDC).

The project targets to increase agricultural productivity of smallholder farmers in the counties of Bungoma, Kakamega and Siaya by facilitating the transition from rainfed to irrigated agriculture and the improvement of the rural road infrastructure. It will finance smallholder irrigation schemes and functionally complementary rural roads in the project region allowing for efficient, effective and visible development effects. The project is expected to create direct and indirect benefits for the rural population in the counties (GIZ, 2016).

Smallholder farmers and their families will benefit directly from irrigation that will allow them to increase their productivity, diversify their agricultural production and strengthen their drought resilience. Indirect benefits will accrue to an even larger group of beneficiaries who will benefit from a larger volume and higher diversity of agricultural products at lower prices, especially during drought season, and potential job creation in the agricultural and agro-processing sector.

The Ministry of Water and Irrigation (MWI) will manage the implementation of the project. The counties are expected to provide technical inputs and advisory services to beneficiaries and, in particular, determine priorities and participate in identifying investments to be included in the project. The proposed project is integrated in the Kenyan efforts to achieve a paradigm shift from subsistence to commercial agriculture with the aim of achieving higher agricultural productivity, rural incomes and food security as stipulated in the Agriculture Sector Development Strategy (ASDS, 2010-2020). The Kenya Vision 2030, the ASDS, the County Integrated Development Plans (CIDPs) recognize the poor rural infrastructure as one key obstacle to economic development in the periphery (GIZ, 2016).

3.2 Kenya Integrated Water, Sanitation, and Hygiene Project (KIWASH)

The project is funded by the U.S. Agency for International Development (USAID) and aims to enable more than one million Kenyans across nine counties to gain access to improved WASH services and assist households in gaining access to irrigation and nutrition services by combining nutrition programming with improved access to water, sanitation, and hygiene (WASH). The project period is 2015-2020 and falls within the Environmental and Health Sector

KIWASH plans to partner with water and sanitation service providers to develop bankable business plans, improve operations, and facilitate access to financing. In addition, it will include behavior change communication activities linked to Community-Led Total Sanitation and Hygiene initiatives that will stimulate demand for improved household sanitation, hygiene, and nutrition. Target counties include Busia which falls within the SMM basin among other eight counties in Kenya (KIWASH, 2017).

Selected Activities include: (a) support to water service providers (WSPs) to improve service delivery and business operations; (b) facilitate access to financing for WSPs and WASH enterprises; (c) support achievement of the Government of Kenya's Community-Led Total Sanitation targets; (d) incubate private sector WASH enterprises to develop innovative products and approaches; and (e) integrate WASH and nutrition best practices into Kenyan health services delivery.

3.3 Programme for Agriculture and Livelihoods in Western Communities (PALWECO)

The program, which is funded by the government of Finland, facilitates partnerships with relevant stakeholders to harness the synergy needed to turn Busia from an importer to an exporter of agricultural goods. The partnerships present unique investment opportunities in transport, supply of animal feeds and farm inputs, agro-processing and banking for the mutual benefit of Busia residents, the investor community and neighboring markets in Kenya, Uganda and beyond. The geographical coverage of PALWECO is Busia County, comprising the sub-counties of Teso North, Teso South, Busia, Butula, Nambale, Samia and Bunyala all within the Sio Malaba Malakisi Basin

The overall objective of PALWECO is decreased poverty, improved livelihoods and living standards of the population of Busia County while the purpose is strengthened capacity of the local communities within Busia County with an aim to influence structures and processes affecting them; and increased wealth from sustainable farming and non-farming activities.

The results of PALWECO are largely impact oriented and include: (a) improved and sustainable livelihoods and living standards in households and communities (Component 1, Household economy); (b) improved and sustainable income and food security through value chains approach (Component 2, Agricultural value chains) and (c) strengthened capacity to plan and monitor development activities and improved access to resources and support (PALWECO, 2017).

3.4 Miscellaneous central/local government projects in Kenya

In addition to the above projects, there are a number of investment projects that have been initiated/ prepared by national agencies and county governments with the SMM Sub-basin in Kenya. The notable projects are the following:

- a. Landanyi Irrigation development Project. This project, estimated at US
 \$ 5.6 million, has been identified and prepared by the Busia Country government.
- b. *Cheptais Malaba Water Supply and Sanitation Project.* This project is being prepared by the Bungoma Country government in cooperation with World Vision International. It has not yet been costed.
- c. *Malakisi Irrigation Development Project*. This project, estimated at US \$ 49.2 million, is being prepared by the National Irrigation Board, which is an autonomous body under the Ministry of Water and Irrigation of Kenya.
- d. *Lower Sio irrigation Project.* This project, estimated at US \$ 22.0 million, is being prepared by the National Irrigation Board, which is an autonomous body under the Ministry of Water and Irrigation of Kenya.

3.5 Water Management and Development Project

This is a World Bank and Government of Uganda funded project that aims to support integrated water resources planning and development. The project is providing earmarked support for preparation of the Mpologoma Catchment Management Plan. This catchment covers the Ugandan parts of the Lwakhakha-Malakisi-Malaba Sub Catchments. The multipurpose investment projects identified under SMM RBM Project have been included within the Mpologoma Catchment Management Plan as some of the priority investments for possible implementation. The Project is also supporting the development of Water Supply and Sanitation Systems for Busia, Mbale, Butaleja, Budaka and Kibuku among others.

A second phase of the project is being planned and is expected to run from 2019-2024. Proposed Phase II investment projects that lie within the SMM Sub-basin include the following:

- a. Busia Town Water Supply and Sanitation System (US \$ 10 million).
- b. Water Source Protection Plan (covering the Lower Sio Subcatchment and parts of Lake Victoria) (US \$ 0.4 million).
- Mbale Water Supply and Sanitation Project covering Mbale, Butaleja, Busolwe, Kadama and Kibuku Water Supply and Sanitation Projects. (US \$ 70 million).
- d. Implementation of priority projects identified in the Mpologoma Catchment Management Plans - Lwakhakha Hotspot. (US \$ 1.0).
- e. Water Source Protection Plans for Mbale Water Sources. (US \$ 1.0).

3.6 Farm Income Enhancement and Forest Conservation Project 2 (FIEFOC 2)

The Farm Income Enhancement and Forest Conservation Project 2 (FIEFOC 2) is the successor project to FIEFOC 1 which was implemented between 2006 and 2012 and funded jointly by the African Development Bank (AfDB) and Nodic Development Fund (NDF).

FIEFOC 2 targets improvements in farm incomes, rural livelihoods, household food security and climate resilience through expansion of rural irrigation schemes together with development of agribusiness and integrated natural resources management. Over a 5 year period, it will support integrated development of 5 new small- and medium-scale agricultural irrigation schemes covering districts in the East, West and North of the country.

The project has three components which are described below (AfDB, 2015).

- a. Component 1: Agriculture Infrastructure Development. This will include the development of 5 new irrigation schemes Wadelai (1000 ha), Mubuku 11 (480 ha), Doho II (1178 ha), Tochi (500 ha), and Ngenge (880 ha) covering a total area of 4038 ha for high value crops. One of the above schemes Doho II is located in the SMM sub-basin. The component also includes construction of 50 km of access roads linking schemes with main road networks and establishment of 4 Class B climate stations near each scheme and 50 fixed gauges on main canals and rivers for discharge measurement. It also includes the formation of Water Users' Associations (WUAs) in the areas where irrigation schemes will be developed.
- b. *Component 2 (Agribusiness Development)*: This component will complement the construction of new infrastructure with training and support aimed at enabling beneficiary communities to develop new and existing income opportunities. The component will focus on strengthening and developing the business outlook of beneficiaries as well as providing training in climate smart farming practices.
- c. Component 3 (Integrated Natural Resources Management): The third component will aim to establish a sustainable basis for participatory natural resources management in the catchment basins upstream from the 5 selected irrigation schemes. The objective is to improve planning and management of soils, water and forests and overall upland productivity to improve livelihood security and climate resilience and reduce erosion and build-up of silt in the downstream irrigation infrastructure.

3.7 Mount Elgon Regional Ecosystem Conservation Programme (MERECP)

This programme was started in response to the need for a regional approach to the management of this transboundary ecosystem as an important part of a water catchment for Lake Victoria, the River Nile and Lake Turkana. This program also falls within the framework of Lake Victoria Basin Commission (LVBC) operational strategy 2007-10 under the Environmental and Natural Resources programme area.

MERECP was designed by IUCN and implementation started in September 2005 for a four year period with a total co-financed budget commitment of NOK.342 million (approx. US\$ 4.827 million) by the Governments of Norway and Sweden.

At the mid-term review of the project that was carried out in April, 2008, it was recommended that the programme strategy be redesigned to focus resources towards grass-root level communities living adjacent to the National Parks and Forest Reserves in the Mt. Elgon area of Kenya and Uganda. Under the redesigned programme strategy, implementation is managed by Lake Victoria Basin Commission (LVBC) of the East African Community (EAC). Implementation at the country level is coordinated by the Ministry of Environment and Mineral Resources (MEMR) in Kenya and Ministry of Water and Environment (MWE) in Uganda. This implementation period is proposed to cover January 2009 – December 2010 at a total cost of not exceeding NOK 17.775 million equivalent to US\$ 2.661 million.

The key expected outputs here include benefits sharing and co-management models of ecosystem and biodiversity conservation and management around protected areas (PAs) demonstrated successfully by end of 2010; Equity and benefit sharing models/revolving funds that create opportunities for payment of ecosystems goods and services for unproved livelihoods are in place; Linking of livelihoods improvement to climate change mitigation/adaptation demonstrated successfully by end of 2010 and appropriate institutions are strengthened in support of the transboundary ecosystem approach by end of 2010.

3.8 Third Northern Uganda Social Action Fund Project

This is a World Bank and GoU funded project (US\$130M) covering districts in Northern Uganda and Eastern Uganda to be implemented over a 4 year period (2016-2020). All the districts lying in the SMM sub-basin in Uganda are covered under this program.

The development objective of the Third Northern Uganda Social Action Fund Project for Uganda is to provide effective income support to and build the resilience of poor and vulnerable households in Northern Uganda. The project has four components are outlined below (World Bank, 2015).

a. *Component 1: Labor Intensive Public Works and Disaster Risk Financing.* The public works component focuses on a variety of asset creation activities, including rural access roads, tree nurseries, afforestation, construction of different soil and water conservation measures, and flood control structures, rainwater harvesting, rehabilitation and construction of market shelters, rural health facilities, and schools, among others. These assets would aim to help poor households respond to and build resilience against the impacts of climate change by helping communities diversify risk, enhance incomes, and build skills and assets. For example, soil and water conservation activities lead to improved land productivity and increased income, while building roads, schools and health facilities lead to better access to markets and social services. Component 1 also includes disaster risk financing. Given the high exposure to disasters, and their impact on the poor and vulnerable in Uganda, the project contains a Disaster Risk Financing Component. This component will support the development of a scalability mechanism that will enable the social protection program to rapidly scale up assistance to households when there is a disaster.

- b. Component 2: Livelihood Investment Support. The Livelihoods
 Investment Support (LIS) component builds on NUSAF2 experience.
 It comprises of two core interventions: (i) Improved Household
 Income Support Program (IHISP); and (ii) Sustainable Livelihoods
 Pilot (SLP). The IHISP intervention will follow a decentralized
 approach to empower Districts and focus on improving the efficiency
 and quality of sub projects implementation. The IHISP will aim to
 improve income generation of poor and vulnerable households in 55
 target Districts in Northern Uganda through social mobilization,
 provision of technical training, business skills development, provision
 of grants, value addition support, financial and marketing support,
 follow up mentorship and partnerships.
- c. Component 3: Strengthen transparency, accountability and anti-corruption measures. The component objectives will be to (i) strengthen transparency, accountability and anti-corruption measures, (ii) introduce social accountability tools for increased citizens' participation in monitoring NUSAF 2 successor project interventions and other basic service delivery, and (iii) establish systems and tools for grievances handling at the community level. Consistent with the broader project objectives, the TAAC interventions will seek to establish enhanced constructive dialogue between the basic service delivery providers and beneficiaries, and among the beneficiaries as well as with other citizenry to increase likeliness that rightful target beneficiaries will benefit from project interventions and provide independent platforms for resolving grievances that will arise from time to time.
- d. Component 4: Social Protection System and Program Management. This component has 2 sub components (1) Social Protection System that aim at supporting the Government to lay the foundation for the social protection system that is envisioned in the Uganda Social Protection Policy and (2) Program Management aimed at supporting the Government to implement the proposed project.

4. INSTITUTIONAL FRAMEWORK FOR TRANSBOUNDARY WATER MANAGEMENT

4.1 The SMM Project Management Set-up

4.1.1 Key institutions

As mentioned under Chapter 4, the SMM sub-basin has until now been managed under a project management framework. The key institutions in this framework are (Figure 8):

- a. The Nile Equatorial Lakes Council of Water Ministers
- b. The Nile Equatorial Lakes Technical Advisory Committee
- c. The Regional Project Steering Committee
- d. The Nile Equatorial Lakes Subsidiary Action Program Coordination Unit
- e. The Project Management Unit

Each of these organs is briefly described below.

4.1.2 The Nile Equatorial Lakes Council of Water Ministers (NELCOM)

The Nile Equatorial Lakes Council of Water Ministers (NEL-COM) is the highest decision- and policy-making organ of the Nile Equatorial Lakes Subsidiary Action Program (NELSAP). NEL-COM is composed of the Ministers in charge of water affairs in the NEL countries.

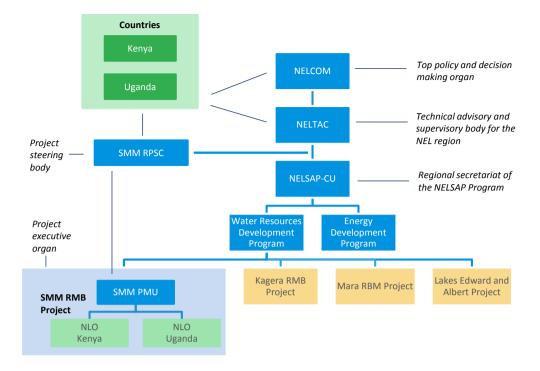


Figure 19: The institutional framework for Management of the SMM Project.

Key functions of NELCOM include the following (modified from NELSAP, 2015a):

- a. Taking all policy and political decisions concerning the NELSAP Program
- b. Making recommendations to the riparian governments concerning policy issues that require decisions;
- c. Providing strategic direction for the preparation and implementation of the NELSAP programme
- d. Approving Project Implementation Manuals and grant proposals for financing;
- e. Approving annual work plans and budgets, and programs and projects, of NELSAP
- f. Ensuring the smooth operation of NELSAP activities
- g. Ensuring the timely mobilisation of member country cash contributions and contributions from external support agencies (Development Partners) and NGOs
- h. Providing linkage of programme elements with other line ministries in the member countries and regional programmes like the EAC, CEPGL, NEPAD, IGAD, COMESA and other regional bodies;
- i. Facilitating joint agreements, policies and data sharing protocols;

- j. Appointing and terminating the services of the Regional Coordinator of the NELSAP Program on the recommendations of the Nile Equatorial Lakes Technical Advisory Committee (NELTAC).
- k. Approving the filling of other senior positions in NELSAP on the recommendations of the Nile Equatorial Lakes Technical Advisory Committee (NELTAC).
- 1. Reporting to the respective governments of the basin countries.

Chairmanship of the NELCOM rotates amongst the member countries following the alphabetical order of the countries. Each country holds the chairmanship for a term equivalent to the period between two successive meetings of NELCOM. The operations of NELCOM are funded by the member countries.

4.1.3 The Nile Equatorial Lakes Technical Advisory Committee (NELTAC)

The Nile Equatorial Lakes Technical Advisory Committee (NELTAC) is an oversight and advisory comprised of high-ranking government officials (two from each country; at Head-of-Department level), usually with some background in water resources management and/or development. The NELTAC reports to, and takes directives from NELCOM.

The key functions of NELTAC include the following (modified after NELSAP, 2015a):

- a. Providing technical advice to their respective ministers of water and NELCOM members to enable them take informed decisions related to the integrated management and development of the SMM Subbasin.
- b. Providing strategic guidance, oversight, monitoring and supervision, on behalf of NELCOM, for all the NELSAP centres and programmes and projects to ensure their financial health and sustainability, and delivery of high level results in a timely manner so as to attain the objectives of the NELSAP Programme.
- c. Offering guidance and advice to NELSAP-CU and the SMM PMU on policy and technical matters related to integrated water resources management and development, program management, personnel management and finance and administration;
- d. Assisting NELSAP-CU and the SMM PMU in prioritization of major programs and activities to ensure they meet the needs of the countries.
- e. Serving as an interface or intermediary linking NELCOM to the NELSAP-CU and the SMM PMU, Development Partners and other stakeholders.

- f. Making follow-up to ensure the implementation of NELCOM decisions and directives, and monitoring and providing regular feedback to NELCOM on the impacts of its decisions and directives.
- g. Preparing briefs for NELCOM on strategic issues on the Nile Equatorial Lakes Region, outcomes of engagements and strategic dialogue with development partners, and progress of NELSAP programs and projects.
- h. Making recommendations to NELCOM on recruitment or termination of services of the NELSAP-Regional Coordinator and Project staff.
- i. Participate in interviews to recruit Regional Coordinator and other senior staff at NELSAP-CU.
- j. Coordinating, facilitating and supervising NELSAP programmes and activities at the national level.
- k. Promoting the identification and preparation of NELSAP projects leading to action on the ground; and
- 1. Facilitating joint agreements, policies and data sharing protocols.

The conduct of business in meetings and activities of the NELTAC is governed by Rules of Procedure that are adopted by NELTAC. Decisions of NELTAC are reached by consensus. Chairpersonship of the NELTAC is held by the member countries on rotation basis.

4.1.4 The Regional Project Steering Committee (RPSC)

The Regional Project Steering Committee (RPSC) is a supervisory body comprised of senior government officers from Kenya and Uganda (three technical officers per country). It is responsible for (modified after NELSAP, 2015a):

- a. Guiding, supervising, monitoring and ensuring that the activities undertaken by the SMM PMU meet NELSAP Program and SMM Project objectives.
- b. Carrying out critical review of the performance of the SMM Project and offering guidance to enable it deliver expected outputs.
- c. Monitoring the implementation by Kenya and Uganda of their obligations to the SMM Project and NELSAP Program and recommending appropriate measures to enhance compliance;
- d. Facilitating cooperative decision making by Member states on matters affecting the integrated management and development of the shared water resources of the SMM sub-basin;
- e. Facilitating and promoting the resolution of issues raised by either State Party with a view to preventing disputes;

- f. Reviewing and approving program work plans and budgets, progress reports, financial reports and project technical and administrative reports;
- g. Reporting to NELTAC on the activities of the SMM Project; and
- h. Undertaking such other functions as the State Parties (Kenya and Uganda), in consultation with the NELSAP may mandate it to undertake.

4.1.5 The Nile Equatorial Lakes Subsidiary Action Program Coordination Unit

(NELSAP-CU)

The Nile Equatorial Lake Subsidiary Action Program Coordination Unit (NELSAP CU) provides secretariat and administrative support to the NELSAP Program and Projects.

Its specific responsibilities with respect to the SMM Project include the following (modified after NELSAP, 2015a):

- a. Recruiting SMM PMU staff in line with the NELSAP Human Resources Policy and Procedures Manual (2009);
- b. Making external communications on the NELSAP Program and Projects
- c. Procuring and contracting consultants and other service providers for the NELSAP Projects;
- d. Arranging for monitoring and evaluation of the NELSAP Program and Projects; including arranging for joint annual supervision missions and mid-term and end of project evaluations;
- e. Liaising with development partners and management of program trust funds;
- f. Preparing and overseeing the application of good practice guides in a wide range of areas related to the activities of NELSAP projects such as stakeholder participation, Gender mainstreaming, environmental and social impact assessment, social assessments, resettlement action planning, etc.
- g. Arranging for capacity building for NELSAP Project staff and government officials
- h. Discharging such other functions related to the implementation of the SMM Project as assigned by NELTAC and NELCOM.

4.1.6 The Project Management Unit (PMU)

A **Project Management Unit** to manage day-to-day activities of the SMM project was established in Kakamega, Kenya. The PMU is the administrative and secretariat organ of the SMM Project and main vehicle for project implementation. The PMU was headed by a Project Manager deputized by a Project Officer. The unit also included a Finance Officer, Water Resources Engineer and several support staff (Administrative Assistant, Office attendant, drivers, etc.).

The main responsibilities of the PMU include the following:

- a. Preparing annual and quarterly project work plans and budgets
- b. Initiating activities and implementing the work plans and budgets to ensure timely delivery of expected outputs
- c. Carrying out financial control and ensuring proper management of project funds
- d. Working closely with NELSAP-CU in the procurement of goods, works and services; preparing terms of reference and tender documents for hire of consultants and contractors under the project; including services for identification and prefeasibility and feasibility studies for investment projects;
- e. Facilitating and supervising the activities of consultants and contractors procured to perform tasks under the project; ensuring quality control in execution of project tasks
- f. Facilitating and supervising the activities of the National Liaison Officers
- g. Arranging for, and facilitating project steering committee meetings; preparing meeting agenda and working documents; preparing and circulating project minutes and proceedings;
- Meeting the travel and accommodation costs of members of the RPSC and National Liaison Officers while participating in NELSAP and SMM program/project meetings, workshops, missions and other activities.
- i. Establishing, maintaining and managing data and information systems on the SMM Project;
- j. Facilitating data and information sharing and exchange on the SMM project in accordance with the NBI Information Sharing and Exchange Procedures and Guidelines.
- k. Preparing annual and quarterly project progress reports

The PMU works closely with the Lake Victoria North Catchment Area of the Water Resources Management Authority (Kenya) and Kyoga Water Management Zone /Directorate of Water Resources Management (Uganda) in implementation of project activities. As an integral component of the PMU but operating from within the countries are National Liaison Officers (NLOs) – one per country – who link the PMU to the countries.

On ad hoc basis, Technical Sub-Committees comprising technical officers from the two countries are formed to follow up on specific assignments.

4.1.7 National Liaison Officers (NLOs)

The PMU includes two National Liaison Officers (NLOs) – one each from Kenya and Uganda. The NLOs are senior national staff provided by the countries to facilitate the activities of the Project. Their operational expenses were paid for by the PMU.

The specific responsibilities of the NLOs include the following:

- a. Acting as a link between the SMM Project, central and local governments, and local stakeholders;
- b. Providing the project with guidance on national policies and procedures that are applicable to the project;
- c. Providing guidance to local stakeholders/beneficiaries on disbursement and accountability procedures of the project;
- d. Disseminating information on the project to stakeholders at national and local levels;
- e. Assisting and participating in implementation of micro projects; this included identifying relevant stakeholders (county/district and local levels; NGOs, CBOs, politicians, media) with a role in implementation of the micro projects;
- f. Participating in project steering committee meetings;
- g. Participating in monitoring and evaluation of the project; and
- h. Accompanying Project Management Unit (PMU) staff on working visits to the project area in their respective countries.

4.2 Efforts to develop a permanent legal and institutional framework for the SMM sub-basin

4.2.1 The institutional options considered

The NELSAP-CU between 2009 and 2012 conducted a number of studies to develop a legal framework and institutional arrangements for collaborative management and development of the transboundary water resources of the Kagera, Mara and Sio-Malaba-Malakisi river basins.

For the SMM sub-basin, four alternative options outlined below were considered. The options are (NELSAP, 2012):

- a. Maintaining the status quo (i.e. the project management framework described above);
- b. Creating a bilateral framework between Kenya and Uganda for management of the SMM sub-basin;
- c. Create a framework under the NBI; or
- d. Create a framework under EAC

The key features of each of the options is summarised below.

Table 26 : The key institutional options for the future management of the SMM Sub-basin(NELSAP, 2012)	

Option	Key features
OPTION 1 : Maintain the status quo.	In this option, the two riparian states would maintain the existing water resources management arrangements in the catchments with no new formal institutional arrangement between the two states. Each state takes its own administrative and legal measures to manage the basin and when necessary, on ad hoc basis, the two states can meet to resolve any outstanding and emergent transboundary issues. This option was not recommended, but was used for long to execute the SMM Project
	the SMM Project.
OPTION 2: Bilateral arrangement between Kenya and Uganda.	Under this option, the two States enter into a specific agreement for co-operation in the integrated management and development of the SMM waters. This would be a purely bilateral arrangement outside existing legal and institutional frameworks of the EAC/LVBC and Nile Basin. This option, though not prioritized in the study, appeared attractive to
	the countries. The countries have signed light bilateral agreements in the form of an MoU on the SMM Project.
OPTION 3 : An Arrangement under NBI.	Under this option, the countries make an arrangement (sign protocols) for the management of the SMM under the Nile Basin Initiative within the context of draft Nile Basin Cooperative Framework as a subsidiarity institution.
	However, the proposed Nile Basin Cooperative Framework has not been finalized and was only signed by six countries (Burundi, Rwanda, Kenya, Ethiopia, Tanzania and Uganda). Even when the Co-operative framework is adopted by the states, it must necessarily go through a lengthy ratification process (already ratified by Ethiopia, Rwanda and Tanzania) before coming into effect. Only after conclusion of this process will Kenya and Uganda be in position to enter into a new treaty bringing the SMM institutional arrangement under the Nile Cooperative Framework.
	For the above reasons, and fear of losing benefits already demonstrated under NELSAP by opening up to all NBI countries, this option was not recommended.
OPTION 4: An Arrangement under East African Community	Under this option, Kenya and Uganda will need to reach an agreement under the EAC Treaty to cooperate on the management of the SMM

Option	Key features
	sub-basin.
	The SMM sub-basin comprises of two main river systems: the Sio River system that drains into Lake Victoria, and the Lwakhakha-Malakisi- Malaba River system that drains into Lake Kyoga in Uganda. This presents a challenge with respect to the legal framework to use in managing the river systems. The two river systems may have to be managed separately (with the Sio managed under the LVBC protocol while a new protocol is reached for the Lwakhakha-Malakisi-Malaba River system) or managed together (which is the preference of the countries), by extending the LVBC protocol to cover the Lwakhakha- Malakisi-Malaba Catchment.
	Further to the above, there are two options available for the two countries to commence cooperation on the SMM under the EAC: (a) through a directive of the Council of Ministers, which would enable the SMM to be managed without a separate legal framework; and (b) through a community law prepared by the East African Legislative Assembly (EALA), which would have greater moral authority than the Council of Minsters' directive. Under the latter modality, a specific legal instrument will be required to create an enabling law that creates a specific institutional framework to implement SMM in a specific geographical and social context.
	This option was the recommended framework under the institutional framework studies, and preferred option for both Kenya and Uganda, but was not implemented by the countries for unclear reasons. It was specifically recommended for a Strengthened NELSAP under current arrangement within NBI, and using an MoU for strengthening coordination linkages between NELSAP and LVBC.

4.2.2 Concerns of the NEL member countries

The NELCOM, when presented with the institutional options for the SMM and the other river basin projects, expressed concerns that the options were not appropriate, not suitable, and did not build on the pillar institutions of the EAC/LVBC and the NBI. Concerns from the member countries, which were along the same lines as the NELCOM view point, included the following (NELSAP, 2012):

- The proposed structures were heavy, costly and not sustainable
- The countries' positions were varied, with some preferring bilateral agreements among the concerned riparian countries and others preferring arrangements under the EAC Secretariat/ LVBC Commission;
- The scope of the cooperative frameworks was not agreed, with some countries wanting to limit the scope to coordination among riparian states, and other countries wanting to extend it to water resources management and development.
- The proposed CFA does not create strong links with decentralized units like regional governments, counties/districts, lower local

governments, and Water Management Zones (hence the challenge of anchoring any future institutions under the NBI),

New consultations with the countries conducted by NELSAP in 2010 yielded the following recommendations as a way forward (only recommendations applicable to the SMM are shown) (NELSAP, 2012).

- a. Explore possibility of creation of Joint Technical Committees between countries for Collaborative Management and Development of Transboundary Water Resources of the Sio-Malaba-Malakisi River Basin with defined Coordination mechanisms.
- b. Operation of bilateral arrangements between countries on Cooperative Frameworks for the Sustainable Management and Equitable Utilization of the Shared Water Resources of the SMM Basins
- c. Set the objective of the framework as to foster cooperation among the member states for the sustainable management and development and equitable utilization of the shared water resources of the sub basins.

4.2.3 The eventual framework

The above recommendations were not vigorously pursued. Instead in 2015, the countries chose to extend the institutional arrangements under the SMM Project (described above) and signed an MoU for this purpose (Annex 2).

A new development in 2016 – the cessation of funding and imminent closure of the NELSAP River Basin Projects (including the SMM Project) – has forced the countries to go back to the abandoned studies and look into ways of transferring NELSAP's river basin projects to be managed under the EAC/LVBC framework or transferring the functions of the River Basin Management projects to be fully managed by the countries. In the SMM sub-basin, the countries after reconsidering the above options have chosen to manage the sub-basin under the institutional arrangements set up by the River Basin Project (this is provided for in the MoU). The implication of this is that the two countries would fund the operations of the organs of SMM in the absence of project funding. However, no funds had been secured for this purpose by the time of completion of this study.

4.2.4 Consultation platforms and dialogue fora

The SMM project was designed to be a project characterised, among other things, by a finite duration. Accordingly, it was not set up with formal consultation mechanisms although extensive consultation of stakeholders was carried out throughout the duration of the project. The study to develop a legal and institutional framework for the SMM Subbasin (WREM, 2007b) as discussed above, recommended anchorage under EAC as the preferred institutional option for the sub-basin. The study proceeded to propose an elaborate institutional framework for this option, including modalities for stakeholder consultation and dialogue. The key mechanisms proposed under the EAC option and their main features are outline below. They are (WREM, 2007b):

- a. Sio Malaba-Malakisi Consultative Forum: This forum was created to ensure that water users, service providers, local communities and the general public can be effectively involved in the decision making process and in setting development and management priorities in the basin. The forum ensures this by providing a means by which various basin stakeholders get to interact with policy makers at regularly predetermined intervals and during important planning and policy formulation processes. In the study report, policy makers at the highest level are proposed to have an annual meeting with local government officials, water users, service providers, and the public represented by civil society organizations and special interest groups. Membership of the forum was expected to include centres of higher learning, research institutions, and Chambers of Commerce of the two countries. It was envisaged that the SMM Technical Committee would convene the first meeting of the Forum after which the Forum would appoint its own officers to run its affairs.
- b. *Civil Society Networks and Water Users Associations*: It was expected that there would emerge voluntary networks of civil society and water users' associations whose objectives would intersect with the water resource management objectives in the basin. Membership of those networks is expected to include community-based organisations like Water User Associations (WUA/WRUAs), beach management units and various other self-help groups. Other important networks were expected to be those linking research centres and universities. The Civil Society Networks and Water Users Associations were expected to feed into the Consultative Forum and also work closely with the formal governmental agencies and organs in both countries.

The above arrangements remained at proposal level and were never implemented as the EAC proposal was not taken up as explained above.

5. STAKEHOLDER VIEWS ON THE SMM PROJECT

5.1 Approach

As part of preparation of the situation analysis report, interviews of key stakeholders from the two countries were carried out to gather their views on benefits of transboundary cooperation, and priority areas for building upon the achievements of the SMM Project.

Where it was possible, face-to-face discussions were held with the key informants. Where this was not possible, views from the key informants were collected via skype discussions or email exchanges.

5.2 Interview results

The series of tables presented under Annex 1 summarise the results of the interview of stakeholders in Kenya and Uganda

5.3 Consolidated interview results

The synthesised views from interviewed persons complemented with independent analysis by the Consultant team, is presented in the table below.

Table 27: Combined outputs from stakeholder interviews

THEMATIC AREA	COMBINED OUTCOME
Benefits accrued Tangible benefits (i.e. gains that are physical, can be touched and enumerated or are visible to the eye)	 A framework for the cooperative management and development of the Sio-Malaba-Malakisi sub basin developed through the bilateral MoU prepared and signed between the two countries. Each of the countries has derived social and economic benefits from small scale demonstration project such as on irrigation and domestic water supply schemes that helped to showcase the benefits of transboundary cooperation and demonstrate the need for sustainable utilization of the water resources. The knowledge base for joint basin-wide planning and cooperative management of the shared SMM sub basin resources has been established. Several projects including watershed management, pollution control storm water management and multi-purpose water storage projects that have a potential to improve socio-economic conditions in the SMM sub-basin have been identified and prepared to bankable level in each country. Staff and contractors from the countries have secured jobs with SMM projects. Sub-catchment boundaries have been well delineated and transboundary sub-catchment plans have been prepared that provid tools for addressing water and environmental resources issues in the sub-catchments. Strengthened hydrometric monitoring networks providing water resources data that is being used in water resources planning and development. Staff capacity in water resources modelling and other technical areas in IWRM has been strengthened. Improved country level procedures for preparation of multipurpose water resources infrastructure investments as a result of the lessons leaved for the source form CMM environmental resources areas in resources infrastructure investments as a result of the lessons leaved for the source form the source form preparation of multipurpose water resources infrastructure investments as a result of the lessons leaved for the source form the source form the source form the source investment form the source leaved form the source form the source inve
	learnt from SMM projects.Improved protection of the shared water in terms of quantity and
	quality.
Benefits accrued Intangible benefits (i.e. gains that are non-material; cannot	 Deepened mutual trust between the two countries which facilitates joint planning and management and development of shared water resources. Recognition at all levels including local authorities of the shared nature of the water resources and therefore the importance of
be touched or enumerated; are not visible to the eye)	working together to develop and manage the shared water resources.
	 Increased knowledge and awareness in the basin community on water resources issues, which is contributing to reversal in environmental degradation in the SMM watersheds.
	 Increased knowledge and skills amongst government officials on IWRM principles, best practices and application.
	 Personnel from each of the countries have benefited from international exposure through various international engagements.
	 Increased embrace of the concept of Water Resources Users Associations, and their increased participation in management of th SMM catchments.
	Sivily catchinents.

THEMATIC AREA	COMBINED OUTCOME
	efforts at joint management of the shared water resources.
Priority areas for	Operationalize the SMM MoU.
follow-up	Provide support to the countries in resource mobilization.
	 Protect and conserve water resources by mobilizing resources for implementation of Transboundary Sub Catchment Management Plans.
	 Contribute to poverty alleviation by implementing the investment projects that have already been prepared to bankable level.
	 Promote investments in small/mini hydropower development projects and regional power interconnection.
	Harness the tourism potential around Mt Elgon.
	Promote investments in cage fish farming.
	 Up-scaling small scale demonstration projects such as the irrigation projects and water supply schemes.
	 Provide support to the WRUAs in the two countries in areas related to livelihood enhancement and watershed management.
	 Continue capacity building in the area of transboundary water and environmental resources management.
	 Adding telemetric transmission capability to the water resources monitoring stations.
	 Finalization of the catchment management plans for the remaining micro catchments.
Preferred institutional arrangements for transboundary cooperation	 Retain the arrangement under the NELSAP SMM project that features a PMU, RPSC, NLOs and oversight by NELTAC and NELCOM; this framework could be strengthened by improving coordination/collaboration between the various bodies such between the countries, RPSC members, PMUs, and deconcentrated structures of the central government like the WMZs. (proposed by two persons).
	 MoU signed between Kenya and Uganda (bilateral arrangement) with a possibility of turning the sub basin project into a sub basin regional organization while in the interim a joint committee could suffice. The RPSC could be turned into a Technical Committee that reports to the Policy Committee which advises the Ministers responsible for water. The two countries can agree to fund a small secretariat with channeling funds through the NBI. NBI and IGAD are working on a MoU to strengthen cooperation between them with IGAD as a REC and NBI as an RBO (two persons).
	• The intercountry arrangement as in the MoU signed between Kenya and Uganda is rather weak. There is need for a stronger instrument which may have to be approved by Parliaments or EAC legislation. Need for simple but effective institutional arrangements with permanent structures and clear financing mechanisms; funding could be channeled through EAC.
	• A lean Joint Technical Team from Ministries responsible for water (comprising 3 persons from each country) operating at the basin level. A country will decide its representatives i.e. Kenya can decide to appoint 1 from National Gov., 1 from County Gov., and 1 from WRMA. Backed by lean PMU (Coordinator + secretariat 2 No secretary and driver).
Strengths	 Strong capacity for water resources planning and preparation of investment projects from well experienced and qualified staff in NELSAP and the PMU.
	 Many investment projects identified and prepared to a bankable

THEMATIC AREA	COMBINED OUTCOME
	stage.
	 An MoU agreed upon and signed for cooperative management and development of the transboundary SMM sub-basin.
	 Adequate office facilities in Kakamega Kenya to accommodate a regional secretariat for the SMM sub-basin.
	 Strong relationships and cooperation established amongst and between governmental and non-governmental agencies with respect to integrated water resources management activities in the SMM watershed.
	 Knowledge base for transboundary water resources management established.
	 Water resources planning tools like SMM DSS and Water Allocation Model developed.
	 Several integrated catchment management plans prepared.
	 Strong participation of local communities in preparation of sub- catchment plans.
	 Strong linkages with development partners and moderate potential to mobilise resources.
Weaknesses	 The legal and institutional framework for the cooperative management of the SMM sub-basin has not yet been operationalized.
	 Most investment projects identified and prepared have not been implemented due to lack of funds.
	 Weak operation and maintenance of hydrometric networks by the two countries
	 Over reliance on donor financing; weak financing by the countries of sub-basin management and development activities.
	 Inadequate technical capacity; generally few staff in the SMM sub- basin knowledgeable in transboundary water resources management and development.
	 Weak capacity of the countries to apply the SMM Water Allocation Model
	Moderately weak stakeholder engagement.
Opportunities	 Shared languages and cultural ties between the peoples of the SMM region easing cross-border cooperation between the two countries.
	Peaceful coexistence of communities within SMM.
	 Friendly relationships and strong bilateral cooperation between Kenya and Uganda.
	Lack of water use conflicts between the countries
	 Political stability and security within the EAC region generally, and SMM sub-basin particularly.
	 Both countries are members of the same regional economic blocks (EAC, IGAD) that promote regional integration and cooperation between member states.
	 Strong natural resource base and high potential for basin development.
	 Willingness of riparian communities to learn and participate in IWRM activities.
	 Existence of multiple governmental and non-governmental actors for sustainable water and environmental resources management and development within the SMM basin.

THEMATIC AREA	COMBINED OUTCOME
	 Willingness between the two countries to jointly manage and develop the shared water resources of the SMM sub-basin. Strong support from Development Partners; willingness of the development partners to support the implementation of investment projects and transboundary water and environmental resources management activities.
Threats	 Low funding of transboundary cooperation from the countries posing risk of closure of the SMM offices and sending off of the staff, which would nullify the considerable achievements made under the years.
	 Incidences of unilateral decisions/water resources development by the two countries.
	 High population density leading to high pressure on the natural resource base.
	High rate of catchment degradation.
	High poverty rates in the SMM sub-basin
	 Increasing encroachment on wetlands and riparian lands in the SMM sub-basin.
	 Moderately high rates of illness and deaths from common diseases like malaria.
	 Increasing frequency and severity of floods and droughts arising from global climate change with adverse impacts on property, human lives, economic activities and ecosystem functionality
	Weak enforcement of water and environmental legislation in the two countries.

6. STAKEHOLDER ANALYSIS

6.1 Introduction

6.1.1 Importance of stakeholder analysis

This chapter describes the brief work done to analyse the stakeholders for the OES/IGAD Project as part of the process of preparing the situation report.

The term '*stakeholder*' is used to refer to any individual, group, network, organization or institution with a vested interest, stake or investment in a proposed action, and who potentially stands to be affected negatively or positively by the outcomes of the proposed action¹

Stakeholder analysis is the process of systematically gathering and analysing qualitative information to determine the individuals and groups that are likely to affect or be affected by a proposed action (in this case the proposed OES/IGAD Project), and sorting and classifying them according to their impact on the action, and the impact the action will have on them (Schmeer, 2006).

Stakeholder analysis will enable the OES/IGAD Project to decide who, amongst many stakeholders, will be the most affected; have the most influence over the success or failure of the Project; might be the most important supporters; or might be the most important opponents. This information is essential for preparing a stakeholder engagement strategy for the project.

6.1.2 Approach

The analysis carried out involved three basin steps, namely:

- 1. Identifying: listing relevant groups, organizations, and people;
- 2. Analyzing: understanding stakeholder perspectives and interests;

¹ Modified from the Business Dictionary

http://www.bbc.co.uk/schools/gcsebitesize/business/environment/stakeholders1.shtml and BBC website http://www.businessdictionary.com/definition/stakeholder.html both accessed on April 7, 2017.

3. *Prioritizing*: mapping and ranking stakeholders based on relevance to the Project.

These steps and associated results are presented below.

6.2 Stakeholder identification

The first step in the stakeholder analysis was the identification of stakeholders. This was done through a two-phase process:

- 1. *Literature review* to glean from project reports of the SMM Project the individuals and groups that had been involved in water resources management and development activities in the sub-basin;
- 2. Brainstorming the team of consultants complemented the list of stakeholders obtained from literature review through a brainstorming session amongst them. In the brainstorm, they used their extensive knowledge of actors and activities in the basin to draw a list of additional stakeholders.

A total of 135 stakeholders belonging to 10 groups were identifying through the above methods. The 10 groups are the following:

- 1. Central government ministries and departments
- 2. Autonomous national authorities and agencies
- 3. Local government authorities (at level of counties and districts)
- 4. Regional Economic Communities (RECs)
- 5. Transboundary River and Lake Basin Organisations
- 6. Development partners and international financial institutions
- 7. UN agencies
- 8. Universities and tertiary training institutions
- 9. International Non-Governmental Organisations
- 10. Local Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs)

The list of stakeholders is presented in the series of Tables below.

 Table 28: Central government Ministries, Departments and Agencies (MDAs).

KENYA	UGANDA
Ministries and Departments Ministry of Water and Irrigation (MWI)- Transboundary Water Resources Department	<i>Ministries and Departments</i> Ministry of Water and Environment(MoWE)- Transboundary Water Department
MWI – Water Resources Department	MoWE – Water Resources Regulation Department
MWI – Irrigation and Drainage Department	MoWE – Water Res. Monit. and Assessment Department
MWI – Water Storage and Land Reclamation Department	MoWE – Water Quality Management Department
MWI – Water Services Department	MoWE – Rural Water and Sanitation Department
Ministry of Environment and Natural Resources (MENR)	MoWE – Urban Wat. and Sewerage Services Department
Kenya Meteorological Department (KMD)	MoWE – Water for Production Department
Ministry of Foreign Affairs (MOFA)	MoWE – Wetlands Management Department
Ministry of Agriculture, Livestock and Fisheries (MALF)	MoWE – Climate Change Department
Ministry of Lands, Housing and Urban Devp. (MLHUD)	MoWE – Kyoga Water Management Zone
Ministry of Energy and Petroleum (MEP)	MoWE – Victoria Water Management Zone
Ministry of Health (MoH)	MoWE – Wat. and San. Devpt Facility (WSDF) - Eastern
National Treasury	MoWE – Technical Support Unit (TSU)-4, Mbale
Ministry of Devolution and Planning	MOWE – Regional Umbrella Organisation - Eastern
Minister of Tourism	Ministry of Foreign Affairs (MOFA)
	Ministry of Agric., Animal Industry and Fisheries (MAAIF)
	Ministry of Lands, Housing and Urban Dev. (MLHUD)
	Ministry of Energy and Mineral Development (MEMD)
	Ministry of Health (MoH)
	Ministry of Finance, Planning and Economic Development
	Ministry of Tourism, Wildlife and Antiquities
Authorities and Agencies	Authorities and Agencies
National Environment Management Authority (NEMA)	National Environment Management Authority (NEMA)
Kenya Forest Service (KFS)	National Forestry Authority (NFA)
Kenya Water Towers Agency (KWTA)	Uganda Wildlife Authority (UWA)
Water Resources Management Authority (WRMA)	Uganda National Meteorological Authority (UNMA)
Lake Victoria North Catchment Area (LVNCA-WRMA)	National Fisheries Resources Research Institute (NaFIRRI)
Lake Victoria North Water Services Board (LVNWSB)	National Water and Sewerage Corporation (NWSC)
National Irrigation Board (NIB)	Uganda Electricity Gen. Corporation Limited (UEGCL)
National Agricultural Research Organization (NARO)	
Kenya Marine and Eicheries Research Institute (KEMERI)	

Kenya Marine and Fisheries Research Institute (KEMFRI)

Table 29: Local government authorities

KENYA	UGANDA
Counties (the critical stakeholders in the counties are Governors, County Commissioners, Senators, Mayors and technocrats heading water related departments such as water, environment, agriculture, livestock, fisheries, forestry, planning and development, etc.)	District local governments (the critical stakeholders in the districts are LC 5 Chairmen, Chief Administrative Officers, Members of Parliament, Mayors and Town Clerks of municipalities and towns, and technocrats heading water related departments such as water, environment, agriculture, livestock, fisheries, forestry, planning, etc.)
Vihiga	Bududa
Kakamega	Manafwa
Busia	Tororo
Bungoma	Mbale
	Pallisa
	Kibuku
	Budaka
	Butaleja
	Busia
	Namutumba
	Bugiri

Table 30: Regional Economic Communities (RECs) and Transboundary River/Lake BasinOrganisations (RBOs)

Regional Economic Communities	Transboundary River/Lake Basin Organizations
Intergovernmental Authority on Devpt. (IGAD)	Nile Basin Initiative (NBI)
East African Community (EAC)	Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU)
Eastern Africa Power Pool (EAPP)	Lake Victoria Basin Commission (LVBC)
Common Market for Eastern and Southern Africa (COMESA)	Lake Victoria Fisheries Organization (LVFO)

Table 31: Development Partners and International Financial Institutions

Development Partners (DPs)	International Financial Institutions
European Union (EU) and European Commission	The World Bank, IDA/GEF; CIWA
German Federal Enterprise for International Cooperation (GIZ) and KfW Swedish International Development Cooperation	The African Development Bank (AfDB)/African Water Facility
Agency (SIDA),	
Norwegian Agency for Development Cooperation (NORAD)	
Japan International Cooperation Agency (JICA)	

UN Agencies	International NGOs
FAO	Nile Basin Discourse (NBD)
UNDP	Vi- Agroforestry
UN Habitat	WWF
WMO	Global Water Partnership (GWP)
UNESCO	SNV
	Plan – International
	World Vision
	NETWAS
	International Institute for Rural Reconstruction

 Table 32: UN Agencies and International Non-Governmental Organizations (NGOs)

 Table 33: Universities and research and training institutions

KENYA	UGANDA
Maseno University	Busitema University
Egerton University	Makerere University
Masinde Muliro Univ. of Science and Technology	Kyambogo University
Kibabii University	Islamic University in Uganda, Mbale
University of Nairobi	Bugema University, Mbale
Jomo Kenyatta Univ. of Agric. and Technology	
Kabarak University	
Kenya Water Institute	

Table 34: Local Non-Governmental Organizations (NGOs)

KENYA	UGANDA
Kenya Farmers Association(KFA)	Mpologoma Catchment Managt. Committee (CMC)
One Acre Fund	Mt. Elgon Conservation Forum
Abachamana Dairy Farmers Cooperative Society	ECOTRUST Uganda
AGRICS – Kakamega	Youth Environmental Service (YES) – Busia
Anglican Development Services (ADS)	Happy Childhood Foundation (HCF) – Busia
Nabwani Environmental Health Care Intervention Project - Kakamega	Uganda Muslim Rural Development Association (UMURDA) – Bugiri
	Village Hope International – Doho, Butaleja
	Babuka Development Trust Uganda (BUDETU) – Manafwa (Bubutu sub-country)

KENYA	UGANDA
	Community Initiative to Save for Development (COINS-FOD) - Tororo
	Bugobi Tweyambe Youth and Women Association – Namutumba (Bulange sub-country)
	Namutumba District NGO Forum – Busembatia, Namutumba
	MIFUMI – Tororo
	Manafwa Civil Society Network (MACINET) – Manafwa
	African Rural Development Initiative (ARDI) – Mbale
	Bugisu Civil Soceity Network – Mbale
	Christian Child Programme – Mbale
	Shunya Yetana Community Based Organization – Mbale
	Tororo Civil Society Network (TOCINET) – Tororo
	Organization for Capacity Building Initiative (OCABI) – Busia
	Best Village Organization (BEVIOR) Pallisa (Puti-Puti Sub-country)
	Pallisa Civil Society Organizations – Pallisa
	Light the Future For Young Generation (LIFFYGE) – Bugiri

6.3 Stakeholder analysis

After the full list of stakeholders had been generated, a stakeholder analysis matrix was prepared in which key stakeholder attributes of the stakeholders were described. The attributes described are:

- a. Statement of the interest (overt and covert) of the stakeholder that determine a gain or loss from the proposed project;
- b. Indication of whether the stakeholder could potentially be affected (directly or indirectly) (i.e. a primary of secondary stakeholder);
- c. Indication of whether stakeholder will be affected positively or negatively;
- d. Degree to which the stakeholder will be affected;
- e. Potential of the stakeholder to support or oppose the project
- f. Quantitative assignment of interest and power scores

Attributes 'a' to 'e' above were described for groups of stakeholders, as individuals within a group have similar characteristics. Interest and power rating, on the other hand, was done for each individual stakeholder. Each member of the consultant's team, working on his own and based on own knowledge of the stakeholders, provided scores for the stakeholders, with respect to the two attributes. A final study score was obtained by averaging the scores of the individual team members. Power in this study was assessed by rating the stakeholders' possession of the five bases of power (legitimate, coercive, reward, expert and referent power).

The results of the analysis for attributes 'a' to 'e' are presented in the series of tables below, while the results of interest and power rating were used as input for stakeholder mapping (next section).



Figure 20: The Regional Manager of Lake Victoria North Catchment Area (LVNCA), Mrs Rose Angweya, giving a press conference in Bondo, Kenya. LVNCA is one of the project stakeholders.

Table 35: The SMM stakeholder matrix

STAKEHOLDER GROUP	STATEMENT OF STAKE/INTEREST/ MANDATE/ MOTIVATION	PRIMARY OF SECONDARY STAKEHOLDER	AFFECTED POSITIVELY OR NEGATIVELY	DEGREE TO WHICH STAKEHOLDER WILL BE AFFECTED	POTENTIAL OF THE STAKEHOLDER TO SUPPORT OR OPPOSE THE PROJECT
Central government ministries and departments	Responsible for national level planning, resource mobilisation and overseeing implementation of integrated water resources management and development programs. Among these institutions are those responsible for transboundary water cooperation.	Some are primary and others are secondary	Positively, or not affected	Moderately, or not affected	Strong
	The institutions will see the program as providing an opportunity for fulfilling institutional mandates.				
Autonomous national authorities and agencies	Implement specific mandates related to integrated management and development of water and environmental resources. Will be keen to receive technical and financial support for implementation of their programs.	Some are primary and others are secondary	Positively, or not affected	Moderately, or not affected	Strong
Local government authorities (at level of counties and districts)	The LGs have a huge responsibility to implement programs to deliver services to the communities and cause socio-economic development of their areas. They are also the actors on the ground for watershed and environmental management. Community demands for services far outstrip the resources available to the LGs. They therefore gladly welcome any interventions that could supplement their efforts in management of natural resources, development of the natural resources base, and delivery of services to the communities.	Primary	Positively	Weakly, or not affected	Moderate
Regional Economic Communities (RECs)	Have broad mandates to promote regional economic integration (i.e. contribute to the goal of the African Economic Community), and pursue regional peace and security. Among other things, they promote closer cooperation among member states in transboundary water governance and support processes to set up frameworks for cooperative management of international watercourses. May view the project as supporting fulfil of their mandates, or encroaching on their mandate.	Secondary	Positively or negatively depending on specific interventions and relation to the mandate of the RECs.	Weakly, or not affected	Strong
Transboundary River and Lake Basin Organizations	Have mandates to support the sustainable manage and development of transboundary water resources for win-win outcomes to co-basin states. Will view the project as a potential opportunity to promote transboundary water governance in the region but may have concerns about overlaps in jurisdictions.	Primary	Positively	Moderately, or not affected	Strong

STAKEHOLDER GROUP	STATEMENT OF STAKE/INTEREST/ MANDATE/ MOTIVATION	PRIMARY OF SECONDARY STAKEHOLDER	AFFECTED POSITIVELY OR NEGATIVELY	DEGREE TO WHICH STAKEHOLDER WILL BE AFFECTED	POTENTIAL OF THE STAKEHOLDER TO SUPPORT OR OPPOSE THE PROJECT
Development partners and international financial institutions	Work closely with national governments and regional organisations to stimulate sustainable socio-economic development, promote human dignity and nurture good governance. They have funded or are planning similar projects and will be keen to learn if the new intervention will enhance the impact of their own interventions or will be a duplication of effort.	Secondary	Positively or negatively; positively where the project contributes to a common goal or enhances impact of other interventions; negatively where the project is seen to duplicate efforts or make the operation space more complex.	Moderately	Strong
UN agencies	Have a similar interest to the development partners.	Secondary	Positively	Weakly, or not affected	Weak
Universities and tertiary training institutions	Have broad mandates related to the advancement of knowledge through teaching, scholarly research and scientific investigation; as well as in capacity building. They have research and outreach programs in the SMM area, some in partnership with local NGOs. They have an interest to offer services to the project in research or capacity building.	Secondary	Positively, or not affected	Weakly, or not affected	Weak
International Non- Governmental Organizations	Play an important role in developing society, improving communities, and promoting citizen participation. They implement a broad range of activities including, but are not limited to, environmental, social, advocacy and human rights work. A number of the NGOs work on issues of governance (in general. They can work on a broad geographical scale or very locally. They will been keen to offer services in mobilising local communities or partnering with the project in areas of mutual interest	Secondary	Positively, or not affected	Weakly, or not affected	Weak
Local Non- Governmental Organizations (NGOs) and Community Based Organizations (CBOs)	Similar to the International NGOs but are locally based, and address the pressing issues of the communities where they occur. Most of the NGOs and CBOs in the SMM work on issues of child care and protection, HIV/AIDS prevention and care, gender and women rights, household income through improved agricultural practices and environmental protection. They will be looking to receive technical and financial support for their activities, to partner with the project, or assist in implementation of activities.	Secondary	Positively, or not affected	Weakly, or not affected	Weak

6.4 Stakeholder mapping and prioritization

6.4.1 Stakeholder mapping

The outcome of the power and interest scoring was used to graphically map and categorise stakeholders using Mendelow's Power-Interest Grid (Mendelow, 1991). The power-interest grid split the stakeholders into four groups, namely (a) *promoters* (high interest – high power stakeholders; (b) *latents* (low interest – high power stakeholders); (c) *defenders* (high interest – low power stakeholders) and; (d) *apathetics* (low interest – low power stakeholders. The terminology of the stakeholder groups is taken from the World Bank Participation Source Book (WB, 1995). Stakeholders were rated individually, but for ease of displaying the results on one graph, groups were created for stakeholders with similar characteristics, and the average group score for interest and power were plotted. The results are shown it the Table and Figure below.

 Table 36: Results of stakeholder power and interest rating

Group	Group Characteristics	Stakeholder	Power Score (max = 25)	Interest Score (max = 25)
Promoters	Occupy the upper right grid cell of Mendelow's Power- Interest Grid. They have both great interest in the project initiative and the power to	Ministries and Departments A KE-Transboundary Dept., Water Resources Department, MENR, MOFA. UG-Transboundary Dept, Kyoga-WMZ, MOFA, Victoria-WMZ, WRRD, WFPD, WMD	22.0	17.25
	help make it a success or failure.	Ministries and Departments B KE-Irrigation Dept, Water Storage Dept, Water Services Dept, MALF. UG-WRMAS, DWQM, RWSD, UWSSD, MAAIF, WSDF- East, TSU-4, CCD, UO-Eastern	15.0	14.47
		Authorities and Agencies A KE- WRMA, LVNCA, NEMA, KWTA, KFS	24.0	17.13
		Authorities and Agencies B KE- NIB, NARO, KEMFRI, LVNWSB; UG- NEMA, NFA, NaFIRRI, NWSC	15.0	14.69
		Local Government Authorities A KE- Vihiga, Kakamega, Busia, Bungoma. UG- Bududa, Manafwa, Tororo, Butaleja, Busia	25.0	13.13
		Local Government Authorities B UG -Mbale, Pallisa, Kibuku, Budaka, Namutumba, Bugiri	15.0	13.13
		REC A (IGAD)	25.0	15.0
		RBOs A (LVBC, NELSAP, NBI)	25.0	18.54
		RBOs B (LVFO)	15.0	15.0
		DPs and International Financial Institutions (EU, WB, GIZ, SIDA, NORAD)	19.0	20.50

Group	Group Characteristics	Stakeholder	Power Score (max = 25)	Interest Score (max = 25)
		UN Agencies A (FAO, UNDP)	15.0	13.13
		Universities A Maseno University, Egerton University	17.50	12.50
		International NGOs A NBDF, Vi-Agroforestry	22.50	13.13
		International NGOs B WWF, GWP, SNV, Plan International	15.0	13.75
		Local NGOs A Mpologoma-CMC	25.0	15.63
Latents	Occupy the upper left grid cell of Mendelow's Power-Interest Grid. They have no particular	Ministries and Departments C <i>KE</i> - MLHUD, MEP, KMD, NT, MT, MDP. UG - MLHUD, MEMD, MFPED, MTWA	6.00	13.13
	interest, are largely unaffected or are unlikely to become involved, but have	Authorities and Agencies C <i>UG- UNMA, UWA, UEGCL</i>	10.0	13.13
	the power to influence it greatly, either positively or negatively, if they become	REC B (EAC, EAPP)	7.50	16.25
	interested.	DPs and International Financial Institutions (AfDB, JICA)	10.0	18.75
	UN Agencies B (<i>WMO, UNESCO</i>)	5.0	13.75	
	Universities B Busitema University	10.0	12.50	
		International NGOs C IIRR, World Vision	10.0	12.50
Defenders	Occupy the lower right grid cell of Mendelow's Power-	UN Agencies C	20.0	11.25
	Interest Grid. They have vested interests in the project initiative and can voice their	Universities C Masinde Muliro, Kibabii	15.0	11.2225
	support but have little actual power to influence the outcome.	Local NGOs B KE - KFA, OAF, ADFCS, AGRICS, ADS, NEHCIP. UG- Mt. Elgon Cons. Forum, ECOTRUST, YES, HCF, UMURDA, VHI, BUDETU, COINS-FOD, BTYWA.	15.0	8.44
Apathetics	Occupy the lower left grid cell of Mendelow's Power-Interest	Ministries and Departments C MoH	5.0	11.88
	Grid. They have little interest in the project Initiative and little power to influence it.	REC C (COMESA)	5.0	10.00
		Universities D KE-Nairobi, JKUAT, Kabarak, KWI. UG-Makerere, Kyambogo, IUIU, Bugema	10.0	10.94
		International NGOs D NETWAS	10.0	11.25
		Local NGOs C UG-NDNF, MIFUMI, MACINET, AEDI, BCSN, SYCBO, TOCINET, OCABI, BEVIOR, PCSO, LIFFYGE	10.0	8.23

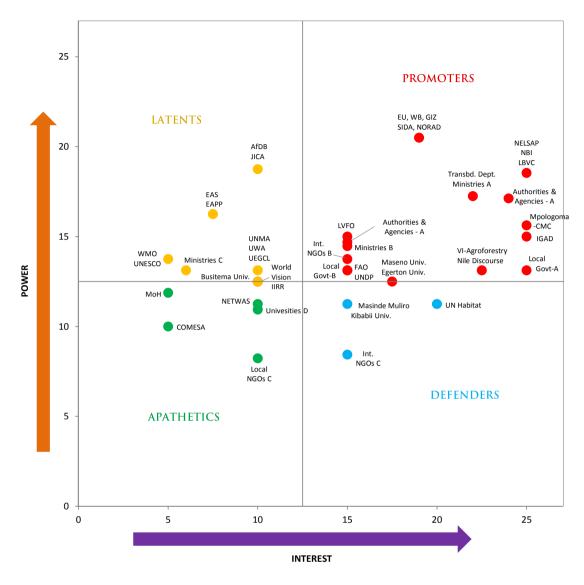


Figure 21: Mendelow's Power-Interest Grid for project stakeholders

6.4.2 Stakeholder prioritization

The results of stakeholder analysis and mapping were combined to define groups and appropriate stakeholder engagement methods for them. Four groups were defined as follows:

(a) Group 1 (fully involve in the project). This group comprises of promoters (very high power and interest stakeholders): MDAs, catchment-level IWRM institutions, RECs and Transboundary RBOs. This group should be directly involved in all the phases of the Project (identification, planning/design, resource mobilisation/financing, implementation, monitoring and evaluation.

- (b) Group 2 (seek partnership with, and involve in aspects of the project). This group also comprises of promoters but those that are less directly involved in transboundary water management. It comprises of Ministries, Departments and Authorities (MDAs) involved in natural resources management, and Local Government Authorities (LGAs) found in the SMM sub-basin. Group members should be approached for possible partnership in undertaking parts of the project. They could be involved from the stages of design to monitoring and evaluation.
- (c) Group 3 (share lessons and exchange experiences with). This group largely comprises of latents. It comprises of moderate interest MDAs, RECs, Development Partners, and international and local NGOs. Group members may not be in position to participate fully but could be interested in the achievements of the project and may have their own lessons to share with the project team. They could be involved in Monitoring, Evaluation and Reporting activities.
- (d) Group 4 (only keep informed). The last group is the largest of the four groups. It mainly comprises of apathetics and includes some MDAs, RECs, International Financial Institutions, UN Agencies, Universities and Local NGOs. Group members may not be in position to participate directly in the project but could still be interested in following the Project. They need only to be kept informed of project progress.

The membership of the groups is shown below.

Ministries, Departments and Agencies (Kenya)	Ministries, Departments and Agencies (Uganda)
Ministry of Water and Irrigation (MWI)	Ministry of Water and Environment(MoWE)
Transboundary Water Resources Department	Transboundary Water Department
Ministry of Foreign Affairs	Ministry of Foreign Affairs
MWI – Water Resources Department	MoWE- Kyoga Water Management Zone
Lake Victoria North Catchment Area (LVNCA-	MoWE- Victoria Water Management Zone
WRMA)	
	Mpologoma Catchment Management Committee (CMC)
Regional Economic Communities	Transboundary L/RBOs
Regional Economic Communities Intergovernmental Authority on Development (IGAD)	Transboundary L/RBOs Nile Basin Initiative (NBI)
Intergovernmental Authority on Development	Nile Basin Initiative (NBI)
Intergovernmental Authority on Development	
Intergovernmental Authority on Development	Nile Basin Initiative (NBI) Nile Equatorial Lakes Subsidiary Action Program
Intergovernmental Authority on Development	Nile Basin Initiative (NBI) Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU)

Table 37: Group 1 Stakeholders (fully involve)

Ministries, Departments and Agencies (Kenya)	Ministries, Departments and Agencies (Uganda)
Ministry of Environment and Natural Resources	MoWE – Water Resources Regulation Department
Water Resources Management Authority (WRMA)	MoWE – Wetlands Management Department
Kenya Water Towers Agency (KWTA)	National Forestry Authority (NFA)
Kenya Forest Service (KFS)	Uganda Wildlife Authority (UWA)
County governments (Kenya)	District local governments (Uganda)
Vihiga County	Manafwa
Kakamega County	Tororo
Busia Country	Butaleja
Bungoma County	Busia
	Mbale
	Pallisa
	Kibuku
	Budaka
	Namutumba
	Bugiri

Table 38: Group 2 Stakeholders (seek partnership with, and involve in aspects of the project)

 Table 39: Group 3 Stakeholders (share lessons and exchange experiences with)

Ministries, Departments and Agencies (Kenya)	Ministries, Departments and Agencies (Uganda)
MWI – Irrigation and Drainage Department	MoWE – Water for Production Department
MWI – Water Storage and Land Reclamation	MoWE – Water Resources Monitoring and
Department	Assessment Department
MWI – Water Services Department	MoWE – Water Quality Management Department
Ministry of Agriculture, Livestock and Fisheries	MoWE – Rural Water and Sanitation Department
National Environment Management Authority	MoWE – Urban Water and Sewerage Services
(NEMA)	Department
National Irrigation Board (NIB)	MoWE – Water and Sanitation Development
	Facility (WSDF) - East
National Agricultural Research Organization (NARO)	MoWE – Technical Support Unit (TSU), Mbale
Lake Victoria North Water Services Board (LVNWSB)	MOWE – Umbrella Organization - East
	National Environment Management Authority (NEMA)
	National Water and Sewerage Corporation (NWSC)
	Uganda National Meteorological Authority (UNMA)
Regional Economic Communities and Development Partners	International and Local NGOs
East African Community (EAC)	Vi- Agroforestry
German Federal Enterprise for International Cooperation (GIZ) and KfW	WWF
The World Bank, IDA/GEF; CIWA	Global Water Partnership (GWP)
Swedish International Development Cooperation Agency (SIDA),	SNV
European Union (EU) and European Commission	Plan – International
Norwegian Agency for Development Cooperation (NORAD)	International Institute for Rural Reconstruction
	World Vision
	NETWAS
	Mt. Elgon Conservation Forum
	ECOTRUST Uganda

Table 40: Group 4 Stakeholder (only keep informed)

Ministries, Departments and Agencies (Kenya)	Ministries, Departments and Agencies (Uganda)
Ministry of Health	Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
Ministry of Lands, Housing and Urban Development	MoWE – Climate Change Department
Ministry of Energy and Petroleum	Ministry of Lands, Housing and Urban Development
	Ministry of Energy and Mineral Development
	Ministry of Health
	National Fisheries Resources Research Institute
	(NaFIRRI) Uganda Electricity Generation Corporation
	Limited (UEGCL)
Regional Economic Communities and International	
Financial Institutions	UN Agencies
Lake Victoria Fisheries Organization (LVFO)	FAO
Eastern Africa Power Pool (EAPP)	UNDP
Common Market for Eastern and Southern Africa (COMESA)	UN Habitat
M	WMO
The African Development Bank (AfDB)/African Water Facility	UNESCO
Japan International Cooperation Agency (JICA)	
Universities (Kenya)	Universities (Uganda)
Maseno University	Busitema University
Egerton University	Makerere University
Masinde Muliro University of Science and	Kyambogo University
, Technology	
Kibabii University	Islamic University in Uganda, Mbale
University of Nairobi	Bugema University, Mbale
Jomo Kenyatta University of Agriculture and	
Technology	
Kabarak University Kanya Watar Institute	
Kenya Water Institute	
Local NGOs (Kenya)	Local NGOs (Uganda)
Kenya Farmers Association(KFA)	Youth Environmental Service (YES) – Busia
One acre fund	Happy Childhood Foundation (HCF) – Busia
Abachamana Dairy Farmers Cooperative Society-	Uganda Muslim Rural Development Association
Kakamega	(UMURDA) – Bugiri
AGRICS – Kakamega Anglican Development Services (ADS)	Village Hope International – Doho, Butaleja
	Babuka Development Trust Uganda (BUDETU) – Manafwa (Bubutu sub-country)
Nabwani Environmental Health Care Intervention Project - Kakamega	Community Initiative to Save for Development (COINS-FOD) - Tororo
	Bugobi Tweyambe Youth and Women Associatio – Namutumba (Bulange sub-country)
	Namutumba District NGO Forum – Busembatia,
	Namutumba MIELIMI Tororo
	MIFUMI – Tororo Manafwa Civil Society Network (MACINET) –
	Manafwa
	African Rural Development Initiative (ARDI) – Mbale

Bugisu Civil Soceity Network – Mbale
Christian Child Programme – Mbale
Shunya Yetana Community Based Organization –
Mbale
Tororo Civil Society Network (TOCINET) – Tororo
Organization for Capacity Building Initiative
(OCABI) – Busia
Best Village Organization (BEVIOR) Pallisa (Puti-
Puti Sub-country)
Pallisa Civil Society Organizations – Pallisa
Light the Future For Young Generation (LIFFYGE) –
Bugiri

The Transboundary Water Resources Departments of the two countries are the lead government agencies on matters of transboundary water cooperation, and hence the lead stakeholders for the IUCN/UNECE Project. Within the transboundary department the critical officers² to engage are the following:

- 1. Director/Commissioner of the Department
- 2. Nile Basin Senior and Alternate TAC Members
- 3. NELTAC Members
- 4. Former Regional Project Steering Committee members for the SMM Project;
- 5. Former SMM Project staff who were on secondment and are now back to the Ministry
- 6. National Liaison Officer for the SMM Project
- 7. National NBI Desk Officer

² These may be officers working in other Departments, but their inputs to transboundary processes are controlled by the Transboundary Waters Department.

7. ANALYSIS AND RECOMMEDATIONS

7.1 Transboundary cooperation in the SMM subbasin not motivated by water conflicts

Unlike other transboundary water basins in the region where there are lowto moderate – intensity conflicts over sharing of water resources, the SMM is characterised by lack of conflict, and presence of brotherly cooperation between the co-basin states of Kenya and Uganda. The decision by the two countries to cooperate on the management and development of the Sio and Lwakhakha-Malakisi-Malaba river courses has not been motivated by a desire to find peaceful ways of resolving disputes around benefit sharing and the use of the water and environmental resources of the shared SMM subbasin. Rather, cooperation has been driven by a common desire of the two countries to develop the water and environmental resources of the two river systems for poverty alleviation and environment protection.

This view is supported by the results of the stakeholder consultations carried out under this study. None of the stakeholders interviewed was looking to the process of transboundary cooperation to deliver equity in benefit sharing, or address issues relating to the principle of '*no significant harm*', or provide mechanisms for prior notification on planned projects in the SMM basin. Equitable sharing of benefits as well as costs related to the integrated management and development of the SMM sub-basin is clearly spelt out in the tripartite MoU on the SMM but apparently, these issues are not of the utmost concern to the officials of either country. Rather, their key interest is in quickly moving the SMM investment program from planning to implementation.

The SMM's greatest water issue is not physical water scarcity, but economic water scarcity. The two countries lack the financial resources and technological capability to harness the considerable water and environmental resources for socio-economic development of the SMM basin. Present use of the water resources is negligible (in both countries) and a large volume of water flows out of the sub-basin into downstream areas.

Given the above situation, the SMM sub-basin, will not be a good choice of a basin from which other IGAD transboundary water basins can draw lessons on approaches for conflict resolution or benefit sharing. However, if the two countries succeed in developing the water resources of the sub-basin, they could provide lessons to the rest of the region on the range of benefits possible from cooperative management and development of shared water resources.

7.2 Countries undecided on the appropriate institutional framework for the SMM

The process of development of a comprehensive policy, legal and institutional framework for the SMM sub-basin has been characterised by indecision and position reversals. The study to develop the management framework considered a number of options and recommended anchorage under the EAC as the better option. However, when the report was presented to the countries, they rejected the recommended option on grounds that the proposals were heavy, costly and inappropriate. Eventually, an MoU for transformation of the SMM Project into an RBO was signed by the two countries but has not yet been implemented (this was one of the options considered by the study but not prioritized).

Key SMM stakeholders were asked for their views on the appropriate institutional framework for management of the SMM as part of this study. Their responses summarised in Chapter 6 shows that the issue of the institutional framework for SMM is far from concluded. Some of the respondent were in support of the MoU and wished to see it speedily implemented. But other stakeholders were critical of the provisions of the MoU and advocated anchorage of the SMM transboundary institution under EAC (the initial proposal of the policy, legal and institutional framework study). Yet other stakeholders wished for the two countries to continue cooperating through a lean joint technical team, or under the project framework that was anchored under NBI/NELSAP with a basin-based PMU and country oversight through the RPSC, NELTAC and NELCOM.

The stakeholders interviewed were high-ranking government officials. The divergence in their views suggest that further work is needed to interrogate the various options for the institutional arrangements for the SMM and enhance internationalisation of the merits and demerits of each option so that all stakeholders are convinced about the suitability of the final option agreed upon.

7.3 Possible areas for support from the OES/IGAD Project

7.3.1 Opportunities and challenges

A comprehensive assessment of Strengths, Weaknesses, Opportunities and Threats (SWOT) for NELSAP's SMM Project has been carried out under Chapter 5 (and Table 8) in this report. The SWOT analysis provides a good indication of the opportunities and likely challenges for cooperative management of the SMM basin, and hence forms an objective basis for designing interventions for the OES/IGAD basin.

The key strengths identified in Chapter 5 include the signing of an MoU for cooperation on the SMM, and many investment projects prepared ready for implementation; key weaknesses include the failure to implement the investment projects, and weak implementation of the agreed upon legal and institutional framework for cooperation on the SMM sub-basin; key opportunities include the strong and friendly ties between Kenya and Uganda, and strong donor support for transboundary cooperation; the key threats include the high poverty, population growth rates and environmental degradation in the sub-basin, and low funding for transboundary cooperation. The reader is referred to Chapter 5 for the details of the SWOT analysis.

7.3.2 Finalisation of the legal and institutional framework for transboundary

water cooperation in the SMM basin.

One of the issues that have prevented the two countries from accessing financing for the proposed investment projects of the sub-basin is the lack of a permanent framework for cooperative management of the SMM Sub-basin.

Between 2007 and 2009, studies were carried out by NELSAP to recommend policy, legal and institutional arrangements for management of the shared SMM basin. The study considered and carefully evaluated four options for the cooperative management of the SMM. These were (WREM, 2007; NELSAP, 2012):

- a. Continuing to cooperate under the existing arrangement of a transboundary project under NELSAP
- b. Creating a bilateral framework for cooperative management between Kenya and Uganda;
- c. Creating a framework for cooperative management under the NBI;
- d. Create a framework for cooperative management under the EAC

Stakeholders consulted as part of this process recommended that, to ensure sustainability, the proposed institutional arrangements should be created within existing frameworks (i.e. The Nile Basin Initiative and the Lake Victoria Basin Commission of the East African Community) rather than as a standalone "organization" independent of the existing regional frameworks. The final study recommended creation of an institutional framework under the EAC framework, and proposed organs to operationalise the proposal.

For unclear reasons, Kenya and Uganda, who are founder members of the EAC, did not take up the recommendation to establish a cooperative framework under the EAC treaty. Instead, they signed a new MoU in June 2015 renewing and extending indefinitely the framework under which they had been cooperating in the SMM project.

The long-term legal and institutional framework for cooperation on the SMM is therefore not yet resolved. The two countries could be supported by the OES/IGAD project to resolve this matter once and for all, and create cooperative framework that allows for cooperation by the two governments and includes dialogue forums as well as other mechanisms for participation of key water users, local governments and civil society in the cooperation process. This framework could become a model for other transboundary basins in the IGAD region to learn from.

7.3.3 Facilitation of a process for prioritization of investment projects in the SMM basin

A large number of investment projects covering multiple economic sectors have been prepared by the SMM Project. Views differ considerably across the sub-basin amongst stakeholder groups on the most important of these investment projects, which views are important in determining which projects get implemented first, and which projects follow afterwards. Given the limited financial resources of the two governments, it is very unlikely that all of the projects can be initiated at the same time, thereby creating a need for an objective way of prioritizing the investment projects.

The SMM basin could benefit from an open and transparent process that allows for enhanced dialogue, bargaining and trade-offs between various interest groups, and between the two countries, to leads to an agreement on prioritization of the many investment projects. Such a dialogue process, proposed to be supported by the OES/IGAD project, could be documented and become a model for replication in other basins. Interventions could include building capacity of civil society organisations, and youth and women groups so that they have the confidence to engage effectively and negotiate with public institutions.

7.3.4 Water diplomacy, the UNECE Convention and transboundary water

cooperation

The NELSAP Program in general, and SMM River Basin Project in particular, has made considerable input in raising awareness about transboundary water cooperation, including information provision on the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (UN Watercourses Convention). This awareness raising has been promoted by the African Ministerial Council on Water (AMCOW) and effected through Regional Economic Communities (RECs) and Transboundary RBOs. Large sections of NBI's Cooperative Framework Agreement are based on the UN Watercourses Convention.

Participation in such awareness raising and capacity building interventions has been dominated by public officials, with disproportionately small representation from private sector agencies and civil society organisations who have vested interested in cooperation between the two countries. Moreover, in both Kenya and Uganda, there has been high turnover of government officials participating in transboundary cooperation processes, with the result that many of the officials that received training on these topics ae no-longer participating in the cooperation processes. The consequence of this is that awareness on the UN Watercourses Convention, and on the importance of transboundary cooperation, remains low in the SMM basin. Moreover, there has been very little, if any awareness raising on the 1992 United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN Water Convention). This convention is especially relevant for the SMM basin where the critical issue for cooperation is not the sharing of water and related benefits, but of protecting the watershed to ensure it continues to provide goods and services to the riparian communities in the two countries.

The OES/IGAD project could support additional training on water diplomacy and awareness raising on the 1997 UN Watercourses Convention as well as the 1992 UNECE Water Convention, The more general awareness raising on the water conventions could target a wider audience including major water users in the SMM sub-basin while the water diplomacy training and detailed examination of the two conventions plus merits of acceding to the UNECE Convention, could target senior public officials.. This activity could run in parallel with the proposed support to finalisation of the legal and institutional framework for the SMM Sub-basin.

7.3.5 Basin champions for integrated river basin development

As part of the process of prioritization of investment projects, the OES/IGAD project could support a parallel process to recognise and support the work of Basin Champions for different issues that deserve attention in the sub-basin's integrated management and development plan. A Basin Champion is an individual who possess the knowledge, experience, enthusiasm and skills to encourage and support other individuals and groups to engage in a particular activity or support a particular cause. They help make links between the specific thematic area and wider issues such as household incomes, employment, good governance and environmental sustainability. Basin Champions can also act as a voice for the marginalised members of the basin community and ensure that issues that are important to the wellbeing of the marginalised groups remain high on the agenda of the two governments. Champions can come from the public and private sectors. Possible thematic areas where champions could arise include gender mainstreaming, vulnerable and marginalised communities, climate change adaptation, indigenous knowledge, wetlands conservation, river bank restoration and rainwater harvesting.

7.3.6 Establishing an SMM Water Forum

Either as part of the activity of establishing the legal and institutional framework for management of the SMM basin, or as an independent parallel activity, the OES/IGAD Project could support the creation of an SMM Water Forum. The forum could be an independent body from the formal SMM structures, and serve the purpose of representing the interests of local communities and water user groups in transboundary water development processes. The forum could have a strong voice and ability to influence the direction and shape of transboundary water resources management and development policies and programs.

7.3.7 Supporting the preparation of good practice guides

NELSAP has over the years developed institutional guidelines and standards for such things as gender mainstreaming, HIV Aids, vulnerable and marginalised groups, stakeholder participation, climate change mainstreaming, resettlement action planning and social assessment. These guidelines have been tested and applied by the river basin projects, one of which is the SMM Project. One possible intervention from the OES/IGAD project is to use the SMM experience in preparing refined good practice guides that could be used in other IGAD transboundary basins.

7.4 Feedback from the first stakeholder workshop

7.4.1 The Kisumu workshop

A workshop bringing together SMM sub-basin stakeholders from Kenya and Uganda was held in Kisumu, Kenya from 16th to 18th May 2017 to discuss the Situation Analysis Report and Benefits Opportunities Analysis Dialogue (BOAD) Paper. The sections below present a summary of the feedback from the workshop.

7.4.2 Basin characteristics

Additional issues for consideration that were pointed out in discussions on sub-basin characteristics included the following:

- a. Climate change the need to consider threats from this phenomenon, and need to strengthen the water resources monitoring network in the SMM sub-basin so as to improve capacity for monitor changes due to climate change;
- *Emerging urban centres* such as Bungoma Municipality, Busia Municipality and Malaba Town – these are growing rapidly and having an impact on the sub-basin environment;
- c. Lack of harmony in sectoral policies and laws of the two countries; and weak operational coordination between the countries, which often leads to a situation where one country is introducing a management intervention on its side of the border (such as tree planting in the riparian zone), while the other country does nothing; and
- d. *Sand mining along the Malaba River* this may be impacting river ecology.

One specific recommendation emerged on the Lower Sio catchment from discussions over emerging transboundary conflicts on the shared river systems. This was to form a transboundary committee comprising of members from the catchment committees for the Lower Sio in the two countries (Kenya and Uganda). This committee could be delegated by the respective water resources management authorities in the two countries to coordinate on issues of the management of and sustainable development of the catchment. For Uganda, this would be a more practical solution than requiring the presence of officials from the Lake Victoria Water Management Zone, which is based in Mbarara.

7.4.3 Investment projects

Key points made in discussion that followed the presentation on investment projects were the following:

- a. There is need to revisit stalled projects such as the Bulusambu Dam

 consider relocating it to an alternative site;
- b. There is need to ensure equal geographical distribution of investment projects (i.e. between the two countries and between upstream, mid-stream and downstream communities);
- c. There is need for investment projects identified under the SMM project to be prepared to a bankable stage so that they can attract funding;
- d. There is need to update the list of investment projects to include projects separately identified by Kenya and Uganda outside of the SMM Project³; and
- e. There is need to apply modelling tools (including the SMM Water Allocation Tool) to ensure that there is adequate water for all proposed investment projects.

Proposed new areas for investment projects included the following:

- a. Wastewater management in the sub-basin, particularly in human settlements along transboundary rivers. A case in point was the Marachi Housing Estate in Kenya where sewer pipes occasionally burst thereby spewing raw sewage into a nearby stream that flows to Busia Uganda and causes repeated outbreaks of Cholera;
- b. Environmental sanitation in upcoming major urban areas (Bungoma, Busia, Malaba) – mainly solid waste; municipal runoff and municipal effluent management;
- c. Desilting of existing old dams; and
- d. Catchment restoration in areas with bare hills

7.4.4 Stakeholder analysis

Stakeholders said to have been be omitted from the list were the following:

- a. Kenya and Uganda representatives on the Nile Council of Ministers (Nile-COM);
- b. Gender Ministries at national level; and Gender Departments in the local governments.

³ The list has been updated under Section 3.8 above.

- c. Youth
- d. Media houses and media practitioners
- e. Private sector actors, specifically industries in the major urban areas such as Busia and Bungoma, where they are contributing to pollution of rivers;
- f. Tourism business entrepreneurs and tour operators;
- g. Water Resources and Environment Management Groups in Uganda (still existing informally, to be the equivalent of WRUAs in Kenya.
- h. Different resources management groups/associations e.g. on water, wetlands and forests.
- Transnational socio-cultural institutions such as the Sabaot Community of Kenya and Uganda, Inzu ya Masaba (Bamasaba cultural institution in Kenya and Uganda) and the Iteso Cultural Union of Kenya and Uganda.

7.4.5 Institutional framework

In the workshop, it was clarified that Kenya and Uganda had considered a number of options for an institutional framework on the SMM and chose to extend the arrangement that existed under the NELSAP Project – this is what is set out in the MoU that the two countries had signed. The pending issue with the MoU was said to be its implementation or operationalisation, particularly the operation of the PMU after the end of funding from NELSAP. This requires financing from the two countries, but funds for this have not yet been secured. It emerged in the workshop that Kenya participants were not familiar with the provisions of the MoU. Their attention was drawn to a copy of the same that is annexed to the Situation Analysis Report.

Concerning the possibility of making changes to the institutional framework proposed in the MoU, bearing in mind the long processes to conclude an intergovernmental MoU, the consensus was to work with the existing MoU, instead of initiating requests for changes to the instrument before it has even been tested.

7.4.6 Possible intervention areas for the OES/IGAD Project

All areas of intervention proposed in the Situation Analysis Report were considered relevant by the participants. Specific comments on the recommendations are as follows:

- a. Finalising the legal and institutional framework for transboundary cooperation on the SMM Sub-basin: further to comments above, the institutional framework has been concluded. The relevant intervention is supporting the two countries Kenya and Uganda to operationalise the MoU on the SMM sub-basin;
- b. *Prioritization of investment projects* The proposal put forward by the International Consultant with regard to updating the investment strategy to be followed.
- c. Training on water diplomacy, UN Watercourses Convention and UN Water Convention: Topics to include the IGAD Regional Water Resources Policy, draft IGAD Regional Water Resources Protocol; and SADC and EAC water protocols.
- d. *Basin champions*: Accepted without modification. It was noted that this approach was already being pursued in some sectors in Kenya;
- e. *The SMM Forum*: the Ugandan side welcomed this proposal and said they have an equivalent structure for the Mpologoma catchment. The Kenyan side did not have a catchment forum, but pointed to the neighbouring transboundary catchment of the Mara River where there were activities to mark Mara Day each year, which activities were used to raise awareness of water resources issues in the Mara Sub-basin, and dialogue with a cross-section of sub-basin stakeholders. Recommendation: depending on availability of funding, stakeholder engagement activities could start off with marking of SMM Day, and in the medium to long term, a Sub-basin forum could be established for more formal engagement of stakeholders.
- f. Good practice guides: Accepted without modification.

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- **Annex 1**: Responses from stakeholder consultation/interviews
- Annex 2: Memorandum of Understanding on the SMM Sub-basin

Annex 1: Responses from stakeholder consultation/interviews

Table A1a

THEMATIC AREA	Ms. Gladys Wekesa Ag. Director- Transboundary Water Resources Department, MWI	Mr. Silas Mutia M'nyiri Nile Basin Desk Officer, MWI, Kenya	Mr. Chrispus Omondi Juma Director- Water Resources Department, MWI, Kenya
Benefits accrued	 Prepared investment project such as Maira /Lower Sio and Sio-Sango Multipurpose Water resources development project; Demonstration projects have contributed to improved incomes to the local communities but also demonstrated the need for sustainable utilization 	 Mutual trust between the two countries. Today the two countries can freely and in trust discuss and plan to jointly manage the shared water resources of the Sio-Malaba-Malakisi sub-basin; The two countries have jointly developed a bilateral MOU to guide in the cooperative management and 	 Established base for joint basin-wide planning in Water Resources and Development Prepared Investment projects such as Sio Sango and Maira Water Resources Multipurpose Projects
	 of the water resources; and The base for joint cooperative management of the shared SMM sub basin resources has been established. 	 development of the Sio-Malaba-Malakisi sub basin Several projects including watershed management, pollution control, storm water management and multi-purpose water storage projects have been identified and jointly prepared in each of the countries 	
		 Each of the countries have benefited from small irrigation demonstration schemes that been implemented in each of the countries Staff from countries have secured jobs with SMM projects 	
		 Personnel from each of the countries have benefited from international exposure through various international engagements 	
Priority areas for follow- up	Implementation of the investment projects	 Operationalise the SMM Implement investment projects	 Implementation of investment projects prepared to realise the main objectives of poverty reduction and economic growth
Preferred institutional arrangements for transboundary cooperation	Bilateral arrangement between the two countries	 Retain the arrangement under the NELSAP SMM project, with a PMU, RPSC and NLOs and oversight by NELTAC and NELCOM 	 A lean Joint Technical Team from Ministries responsible for water (comprising 3 persons from each country) operating at the basin level. A country will decide its representatives i.e. Kenya can decide to appoint 1 from National Gov., 1 from County Gov., and 1 from WRMA. Backed by lean PMU (Coordinator +

SMM Situation Analysis

THEMATIC AREA	Ms. Gladys Wekesa Ag. Director- Transboundary Water Resources Department, MWI	Mr. Silas Mutia M'nyiri Nile Basin Desk Officer, MWI, Kenya	Mr. Chrispus Omondi Juma Director- Water Resources Department, MWI, Kenya
			secretariat 2 Nosecretary and driver).
Strengths	 An already signed MU between the two countries for joint management of the SMM water resources. Willingness between the two countries to manage and develop the shared water resources jointly; and Peaceful coexistence amongst the communities from the two countries 	 An MoU agreed upon for cooperative management and development of the transboundary SMM sub- basin Existence of a PMU and officers in the two countries with institutional memory Many investment projects identified and prepared to a bankable stage 	 Existing mechanism /base for transboundary water resources management)
Weaknesses	Over-reliance on donor funding	 The SMM MoU has not been operationalized Most investment projects identified and prepared have not been implemented 	 In adequate legal & institutional framework, Inadequate technical capacity, Inadequate community participation
Opportunities	 Willingness of Development Partners to support transboundary projects with regional significance 	Strong trust between the two countries.Strong support from Development Partners.	 Potential for basin development Both states are signatories to regional & international obligations Existence of county government & non-state actors at local level Established /cultivated stakeholder participation
Threats	Risk of closure of RBMs	 Risk of closing the SMM offices and sending the staff home which would nullify the considerable achievements made under the years. 	 Sustainability of the project due to low funding, Unilateral decisions/development by countries High rate of catchment degradation High population density

Table A1b

THEMATIC AREA	Ms. Rose Fokwo Deputy Technical Coordination Manager LVNCA, WRMA	Eng. Vincent Kabuti Senior Irrigation Engineer National Irrigation Board, Kenya	Eng. Isaac Ruto Sanitation Officer Lake Victoria North Water Services Board, Kenya
Benefits accrued	 Increased knowledge and awareness in the basin community on water resources issues; this is contributing to reversal in environmental degradation in the SMM watersheds 	 Preparation of Sio-Sango and Maira Multipurpose Water Resources Development projects 	 Pilot investment projects such as Angurai water supply benefiting over 12,000 people with water in Teso North District Feasibility study and designs for projects (project
	 Increased knowledge and skills amongst government officials on IWRM principles, best practices and application 		preparation) and thus making them ready for implementation.
	 Increased embrace of the concept of Water Resources Users Associations, and their increased contribution to management of the SMM catchments. 		
	 Development of transboundary sub-catchment plans which provide a tool for addressing issues in the sub-catchments. 		
	 Investment projects prepared that have a potential to improve socio-economic conditions in the SMM sub-basin 		
Priority areas for follow- up	 Mobilize resources for implementation of Transboundary Sub Catchment Management Plans. 	 Financing and implementation of the prepared investment projects. 	• Resource mobilization to aid in implementation of the investment projects and thus achieve the main
	 Provide support to the WRUAs in the two countries in areas related to livelihood enhancement and watershed management 		objective of poverty reduction and reversal of environmental degradation
	 Continue capacity building in the area of transboundary water and environmental resources management 		
Preferred institutional arrangements for transboundary cooperation	•		Bilateral arrangement between the two countries
Strengths	 Strong relationships and cooperation established amongst and between governmental and non- governmental agencies with respect to integrated water resources management activities in the SMM 	 Strong relationship with development partners Capacity to prepare investment projects and water resources planning 	 Strong linkages with development partners and the potential to mobilise resources

SMM Situation Analysis

THEMATIC AREA	Ms. Rose Fokwo Deputy Technical Coordination Manager LVNCA, WRMA	Eng. Vincent Kabuti Senior Irrigation Engineer National Irrigation Board, Kenya	Eng. Isaac Ruto Sanitation Officer Lake Victoria North Water Services Board, Kenya
	watershed		
Weaknesses	Over reliance on donor financing	In adequate linkage with all stakeholders	Over reliance on donor funding
Opportunities	 Good bilateral relationship between the two SMM states 	 High potential in natural resources within the western region, Kenya. 	 Political stability within the region Potential interventions for management of natural
	 Strong support from the donor community for transboundary water and environmental resources management activities 	 Government support in implementation of investment projects but also in watershed management. 	resources within the SMM basin
	 Shared languages and inter-relationships between the peoples of the SMM region easing cross-border cooperation between the two countries 		
	Peaceful coexistence of communities within SMM		
	 Potential for expansion of commercial farming within the SMM 		
	 Willingness of riparian communities to learn and participate in IWRM activities 		
	Existence of many WRUAs in the SMM sub-basin		
Threats	 Weak enforcement of water and environmental legislation 	Limited funding to implement projects	 Financial constraints may render closure of the SMM RBM project
	 Increasing encroachment on wetlands and riparian lands in the SMM sub-basin 		

Table A1c

THEMATIC AREA	Eng. Nerbert Wobusobozi Commissioner, Water Resources Monitoring and Assessment Department, MWE	Eng. Joseph Eyatu Oriono Commissioner, Rural Water Supply and Sanitation Department, MWE	Mr. Jackson Twinomujuni Commissioner, Transboundary and International Waters Department, MWE
Benefits accrued	 Strengthened water resources monitoring networks; data generated from the rainfall stations is being used in developing rainfall-runoff models for use in water resources planning Modelling capabilities in countries have been built and strengthened 	 Recognition at all levels including local authorities of the shared nature of the water resources and therefore a need to work together. Preparation of joint regional water infrastructure projects ready for implementation. Implementation of the demonstration projects (small scale investment projects) that helped in showcasing the benefits of transboundary cooperation. 	 Joint management and development of the shared water resources; such arrangements did not exist prior to the SMM, with each country having unilateral actions; the near arrangement provide clear conflict resolution mechanisms Joint planning and implementation of investment projects Sustainable water resources management and development
Priority areas for follow- up	 Adding telemetric transmission capability to the water resources monitoring stations 	 Poverty alleviation through the development of the shared water resources. Actualization of the planned investments Harnessing the tourism potential around Mt Elgon by the two countries. Investments in small/mini hydropower development Cage fish farming is an upcoming investment that could be tapped 	 IGAD could look at strengthening of the sub basin institutional arrangements which is not clear. This support could be provided with a view of ensuring that eventually the countries would take over and sustainably manage the sub basin institution. Supporting implementation of shared investments such as Angololo Multipurpose Water Resources Management and Development Project. This will ensure joint benefits accrue to the sub basin communities
Preferred institutional arrangements for transboundary cooperation	 The Water Management Zone needs to be an integral part of the SMM management framework so that initiatives from transboundary cooperation can be mainstreamed and sustained in the national framework for integrated water resources management and development. 	 Need for simple but effective institutional arrangements with permanent structures and clear financing mechanisms (funding could be channeled through EAC). The intercountry arrangement as in the MoU signed between Kenya and Uganda is rather weak. There is need for a stronger instrument which may have to be approved by Parliaments or EAC legislation. 	 Current sub basin institutional arrangement is biased towards the NELSAP CU. IGAD could look at supporting the countries in strengthening the sub basin institutional arrangements.
Strengths		•	 Capacity to bring together the countries Cooperation mechanisms in form of institutional framework
Weaknesses		 Maira and Bulasambu Multipurpose Water Resources Projects were lost opportunities that were not actualized despite the willingness by the 	 Weak institutional arrangements Limited capacity to mobilize resources independent of NELSAP CU

THEMATIC AREA	Eng. Nerbert Wobusobozi Commissioner, Water Resources Monitoring and Assessment Department, MWE	Eng. Joseph Eyatu Oriono Commissioner, Rural Water Supply and Sanitation Department, MWE	Mr. Jackson Twinomujuni Commissioner, Transboundary and International Waters Department, MWE
		Development Partners to fund these investments which would have gone a long way in contributing to poverty alleviation amongst the sub basin communities.	
Opportunities		 Willingness of the development partners to support the implementation of investment projects. 	Existence of line staff and institutions at country levelAlready prepared investment projects
Threats			 Bleak future and fear of reverting to the original status with countries taking unilateral actions which could worsen conflicts in the sub basin.

Table A1d

THEMATIC AREA	Eng. Richard Cong Commissioner, Water for Production Department, MWE	Mr. Steven Ogwette National Liaison Officer, Uganda Sio-Malaba-Malakisi River Basin Management Project	Mr. Louis Mugisha Team Leader, Kyoga Water Management Zone, DWRM
Benefits accrued		 Changed mindset's and greater appreciation of agricultural irrigation as a result of the SMM demonstration project (the Lukhuna Irrigation Scheme) 	
		 Improved country level procedures for preparation of multipurpose water resources infrastructure investments as a result of the lessons learnt from Bulusambu project 	
		 MoU developed and signed that provides a basis for joint management and development of the shared SMM water resources 	
		 Capacities of staff have been enhanced through trainings and skills gained are being used in the daily routines. 	
		 Strengthened hydrometric networks providing water resources data that is being used in water resources planning and development 	
Priority areas for follow- up		 Implementation of the prepared investment projects cross border pollution control projects, multipurpose water resources infrastructure, catchment management plans (Lower Sio, Middle Malaba and Lwakhakha) 	
Preferred institutional arrangements for transboundary cooperation		 Intercountry arrangement as in the MoU signed between Kenya and Uganda. 	
Strengths			
Weaknesses			
Opportunities			
Threats			

Table A1e

THEMATIC AREA	Mr. Sowed Sewagudde	Mr. Wycliffe Tumwebaze	Dr. Callist Tindimugaya
	National Project Coordinator,	NBI Desk Officer	Commissioner,
	LVEMP-II, MWE	DWRM	Water Resources Planning and Regulation Department
Benefits accrued		 Sustainable frameworks for the joint management and development of the water resources of the SMM catchments have been established (the SMM MoU signed between UG/Kenya) Improved sub-basin water resources monitoring networks through design and installation of hydrological monitoring stations and training of technical staff on operation and maintenance of the stations. Sub-catchments have been well delineated and catchment management plans developed Social and economic benefits have been derived from small investment projects implemented under the project (e.g. Mella Water Supply, Lukhuna irrigation demonstration scheme etc.). Portfolio of investments have been identified and prepared for funding. Enhanced knowledge base of the river basin 	 Both tangible and intangible benefits have been obtained. Shared water resources and better protected both in terms of quantity and quality. Increased likelihood of success of national projects as a result of efforts at joint management of the shared water resources Learning from each other hence leveraging capacities and sharing experiences in integrated water resources management and development
Priority areas for follo up	J₩-	 Consider up-scaling the irrigation schemes and the existing small scale interventions (e.g. Lukhuna Irrigation scheme, Mella Water Supply etc.) Finalization of the catchment management plans for the remaining micro catchments. Implementation of some of the identified interventions in the sub-basin and as elaborated in the Sub-Catchment Management Plans. Provide support to mobilize resources for implementation of identified interventions. 	 Identified projects need to be moved to implementation to allow communities enjoy the full benefits of cooperation Power interconnection projects be priority interventions
Preferred institutiona	l	 Current institutional arrangements seem okay but	 MoU signed between Kenya and Uganda with a
arrangements for		could be strengthened by improving	possibility of turning the sub basin project into a sub
transboundary		coordination/collaboration between the various	basin regional organization while in the interim a joint

THEMATIC AREA	Mr. Sowed Sewagudde National Project Coordinator, LVEMP-II, MWE	Mr. Wycliffe Tumwebaze NBI Desk Officer DWRM	Dr. Callist Tindimugaya Commissioner, Water Resources Planning and Regulation Department
cooperation		bodies such between the countries, RPSC members, PMUs, and deconcentrated structures of the central government like the WMZs.	committee could suffice. The RPSC could be turned into a Technical Committee that reports to the Policy Committee which advises the Ministers responsible for water. The two countries can agree to fund a small secretariat with channeling funds through the NBI. NBI and IGAD are working on a MoU to strengthen cooperation between them with IGAD as a REC and NBI as an RBO.
Strengths			
Weaknesses			
Opportunities			
Threats			

Annex 2: Memorandum of Understanding on the SMM Sub-basin



MEMORANDUM OF UNDERSTANDING

BETWEEN

THE REPUBLIC OF KENYA

THE REPUBLIC OF UGANDA

AND

THE NILE BASIN INITIATIVE (NBI)/NILE EQUATORIAL LAKES SUBSIDIARY ACTION PROGRAM (NELSAP)

FOR

THE INTEGRATED MANAGEMENT AND DEVELOPMENT OF THE TRANSBOUNDARY WATER RESOURCES OF THE SIO-MALABA-MALAKISI RIVER BASIN

JUNE 2015

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BETWEEN

THE REPUBLIC OF KENYA duly represented by the Ministry of Environment, Water and Natural Resources, P.O.Box 49720,00100, Nairobi, Kenya.

THE REPUBLIC OF UGANDA duly represented by the Ministry of Water and Environment, P.O.Box 20026, Kampala, Uganda.

THE NILE BASIN INITIATIVE (NBI)/NILE EQUATORIAL LAKES SUBSIDIARY ACTION PROGRAM (NELSAP) of P.O Box 6759, Kigali City Tower 4th and 5th Floor, Kigali-Rwanda together referred to as "the Parties."

WHEREAS

- a) The Nile Basin Initiative (hereafter referred to as "NBI") is an inter-governmental organization formed in 1999 by the Governments of Burundi, Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda and formally established by an instrument dated February 14, 2002.
- b) The NBI member states have agreed on a Subsidiary Action Programme for the Nile Equatorial Lakes Region, referred to as NELSAP, which comprises several programmes among them integrated river basin management projects in the Sio Malaba Malakisi River Basin, Mara River Basin and Kagera River Basin each of which are implemented by a Project Management Unit (the "PMU") and coordinated by the NELSAP Co-ordination Unit ("NELSAP-CU").
- c) Under the Financing Agreement signed at Kigali, on 16th March, 2005 the Governments of Sweden and Norway agreed to jointly finance the three NELSAP integrated river basin management and development projects on the understanding that the participating countries would make contributions to the projects both in cash and in-kind.
- d) In order to formalize the understanding between them regarding the financing and implementation of the projects in March of 2006 the NBI/ NELSAP entered into memoranda of understanding with each participating country on a bilateral basis

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for a four year project preparation phase, which was subsequently extended for two years, and which memoranda of understanding have now expired.

- e) The Parties are cognizant of the progress made in the execution and ratification by Member States of the Agreement on the Nile River Basin Cooperative Framework (hereinafter "NBI CFA") and the reality that until such time as the NBI CFA is in effect it is necessary that the ongoing initiatives are not jeopardized by a lacuna in legal and institutional frameworks for implementation.
- f) The Parties desire to proceed with the preparation and implementation of projects and investments for the integrated management and development of the water resources of the three sub-basins on the basis of an appropriate legal and institutional framework for cooperation and have therefore agreed to utilise the existing institutional frameworks of the NBI/NELSAP.

NOW THEREFORE IT IS AGREED as follows:-

PART I: PRELIMINARY

Article 1.Definitions

- a) Unless the context otherwise requires, the terms used in this MOU shall have the same meanings as in the Agreement on the Nile River Basin Cooperative Framework
- b) The following words and phrases shall have the meanings as ascribed to them hereunder.

"Basin" means the Sio-Malaba-Malakisi River Basin;

"EAC Treaty" means the Treaty for the Establishment of the East African Community signed at Arusha, Tanzania on 30th November 1999;

"Host State" means the State Party within whose territory the PMU is located;

"**Member States**" means the Governments of Kenya and Uganda in their capacity as parties to this memorandum of understanding and "Member State" shall have a corresponding meaning.

"State Parties" means the parties to this memorandum of understanding which are states as that term is understood in international law and non-state parties shall have a corresponding meaning.



Article: 2. Basis for cooperation

2.1 The Member States hereby agree that they shall cooperate under the aegis of the Nile Basin Initiative/Nile Equatorial Lakes Subsidiary Action Program in preparing and implementing projects and undertaking other initiatives for the integrated management and development of the water resources of the Basin

2.2The areas of cooperation shall be the areas of cooperation identified in the NBI Policy Guidelines (as adopted by the Nile Council of Ministers for Water Affairs (NILECOM) in February 1999) which include: Water Supply & Sanitation, Irrigation & Drainage Development, Fisheries Development, Hydropower Development & Pooling, Watershed Management, Sustainable Management of Wetlands & Biodiversity Conservation, Sustainable Management of Lakes, River Regulation, Flood Management, Water Hyacinth & Weeds Control, Water Quality Management, Water Use Efficiency Improvements

2.3 Action through national measures shall be the principal instrument through which the Member States shall facilitate the achievement of the objectives of this MOU.

PART II: OBLIGATIONS OF THE PARTIES

Article3. Obligations of the State Parties

Subject to national policies and laws of Partner States, the obligations of the State Parties under this memorandum of understanding are to:

- a) In respect to the host State, provide secure, well maintained and adequate office facilities inclusive of parking for vehicles for the Project Management Unit, free of rental charges;
- b) Facilitate and support the effective operation of the National Coordination Office established pursuant to the understandings reached with the NBI/NELSAP;
- c) Appoint from among existing staff members a senior Government official of the Ministry responsible for water resources management and development as a National Liaison Officer as part of the National Coordination Office.
- d) Appoint from among existing staff members three senior Government officers to be members on the Regional Project Steerin'g Committee (RPSC);
- e) Provide counterpart funds for preparation and implementation of investment projects as required under the project financing agreements.

- f) Meet operational costs of to the National Coordination Office.
- g) To the extent required by the NBI Interim Data and Information sharing and exchange procedures (2009) and the Operational Guideline for Implementation of the Interim Procedures for Data and Information Sharing and Exchange (2010), provide all information and data available, free of cost, which is required for the implementation of the activities undertaken under this memorandum of understanding in order to achieve its objectives;
- h) Permit all goods purchased for the activities under this MOU and financed out of funds provided under this MOU to be imported into the country and without the imposition of any customs duties and other taxes and levies other than levies representing value of services rendered;
- i) Permit all international and personnel employed by the Nile Basin Initiative/Nile Equatorial Lakes Subsidiary Action Program to enjoy tax exemptions on all remunerations paid to them by the secretariat of NBI (the Nile-SEC) and its subordinate organs, arising from services rendered under this MOU;
- Ensure that the use of funds mobilized under this MOU by NBI/NELSAP for agreed purposes shall not be impeded or delayed by currency or foreign exchange controls or charges;
- k) Facilitate and implement the conditions and requirements of any agreement between any funding organizations and the NBI Secretariat for implementing activities under this MOU;
- Provide and support staff to collect, analyze and store water resources data from the hydrological stations to be installed under this MOU and, thereafter, operate and maintain the installed hydrological stations and make the data available, free of charge, for activities being undertaken under this MOU;
- m) Provide staff to plan and carry out the necessary activities;
- n) Implement the decisions taken by the Regional Project Steering Committee (RPSC) (as approved by the Nile Equatorial Lakes Technical Advisory Committee (NELTAC) and the Nile Equatorial Lakes Council of Ministers (NELCOM) which are required for the implementation of the activities under this MOU in order to achieve its objectives.
- Permit vehicles and other goods and equipment procured for the purpose of facilitating the implementing of the objectives of this MOU to move into and out of the country within without restriction and taxes levied on them; and

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- p) Grant multiple entry visa to NBI/NELSAP staff to facilitate them execute activities and undertaken assignment under this MOU;
- q) Take all necessary measures including legislative measures, in accordance with their respective constitutional procedures and national laws, and on the basis of the principle of subsidiarity, to implement the decisions of the NELSAP;
- r) Put in place mechanisms and systems, including capacity building measures of national level institutions, so as to enhance their ability to secure compliance with the decisions of the RPSC (as approved by NELTAC and NELCOM); and
- s) Through the RPSC on an annual basis provide information to NELTAC and NELCOM regarding the nature and effectiveness of the measures taken to give effect to its obligations under this MOU.

PART III: OBLIGATIONS OF NELSAP

Article 4: Obligations of NBI/NELSAP

4.1 The principal function and responsibility of NBI/NELSAP, as spelt out in the NELSAP Policy Guidelines (2002) is to coordinate and facilitate the following actions by Member States:

- a) Mobilization of financial resources and allocation of funds to activities of the State Parties in line with the decisions and agreements of the Parties;
- b) Implementation by State Parties of joint projects and of other projects within the Basin which potentially have significant beneficial impact on the water resources of the Basin;
- c) Equitable sharing by Member States of the benefits of the utilization and development of the shared water resources of the Basin;
- d) Equitable sharing of the costs and responsibilities of the integrated management of the shared water resources of the Basin;
- e) Capacity building activities within Member States in the field of water resources management and development;
- f) Preparation of integrated management plans for the sustainable management, development and utilization of the water resources of the Basin;

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 g) Harmonization by the Member States of procedures, laws and institutional frameworks for the management and sustainable utilization of the water resources of the Basin;

- h) Development of common standards and guidelines for water resources management and the regulation and control of activities that the affect water resources of the Basin;
- i) Management and dissemination of information on the water resources of the Basin;
- j) Exchange of information on the matters of common concern regarding the shared water resources of the Basin;
- k) Co-operative decision making on the management, development and utilization of the shared water resources of the Basin;
- Resolution by member states of common problems regarding water resources management, development and utilization through conciliation, mediation and other measures;
- m) Establishment of networks of technical working groups among professionals within the Member states on aspects of water resources management, development and utilization;
- n) Liaison and collaboration arrangements with existing institutions and programmes with a view to enhancing complementarities and creating synergies; and
- o) Preparation of project implementation agreements for countries commitment to required inputs to the projects
- p) Cooperation and collaboration with the Commission for the Sustainable Management of the Lake Victoria Basin under the MOU between the NBI and the EAC (2006).

4.2 NELSAP may additionally undertake such other functions as the Member States may determine to be desirable in order to achieve the objectives of this MOU.

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PART IV: INSTITUTIONAL FRAMEWORK FOR COOPERATION

Article 5: Institutional Framework for cooperation

The institutional framework for cooperation comprises the following organs:

- a) The Nile Equatorial Lakes Council of Ministers (NELCOM);
- b) The Nile Equatorial Lakes Technical Advisory Committee (NELTAC);
- c) The NELSAP Coordination Unit (NELSAP CU);
- d) The Regional Project Steering Committee (RPSC);
- e) A Project Management Unit (PMU); and
- f) A National Coordination Office in each Member State.

Article6: NELCOM

NELCOM comprises the Ministers responsible for Water Affairs of the NBI member states. It is responsible for:

- a) Provision of strategic direction for the preparation and implementation of the programme;
- b) Approval of Project Implementation documents and grant proposals for financing;
- c) Resource mobilization for the programme and development projects;
- d) Provision of linkage of programme elements with other line ministries in the member countries and regional programmes like the EAC, CEPGL, NEPAD, IGAD,COMESA and other regional bodies;
- e) Making recommendations to the riparian governments concerning policy issues that require decisions;
- f) Facilitating joint agreements, policies and data sharing protocols; and
- g) Reporting to the respective governments of the basin countries.

Article 7: NELTAC

NELTAC comprises senior officials (at head of department level) of the governments of the Member States of the NBI. It is responsible for:

- a) Provision of strategic guidance, oversight, monitoring and supervision to ensure that program objectives are achieved within the time and budget allocations;
- b) Oversight of recruitment in line with the NELSAP Human Resources and Procedures Manual (2009);

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- c) Provision of linkage of program elements with national institutions on one hand and regional partnerships on the other so as to reinforce the outputs of the programme;
- d) Overseeing implementation of NELSAP projects at the national level;
- e) Serving as the principle advisor to NELCOM regarding preparation and implementation of programmes and projects and recommendations on policy issues that require decisions;
- f) Assisting the Council of Ministers in identifying priority issues and technical strategies and the ways in which they can be addressed through development projects;
- g) Facilitating joint agreements, policies and data sharing protocols; and
- h) Reporting to the NELCOM and relevant ministries in the NELSAP countries.

Article 8: The Regional Project Steering Committee (RPSC)

8.1 To give effect to their obligations under this MOU to cooperate in the management and development of the water resources of the basin the State Parties shall utilise the RPSC established under the NBI/NELSAP.

8.2 The RPSC comprises Government officers from each State Party. It is responsible for:

- a) Guiding, supervising, monitoring and ensuring that the activities within the River basin meet the objectives of the MOU;
- b) Monitoring the implementation by State Parties of their obligations under this Agreement and recommending appropriate measures to enhance compliance;
- c) Facilitating cooperative decision making by Member states on matters affecting the integrated management and development of the shared water resources of the Basin;
- d) Facilitating and promoting the resolution of issues raised by State Parties with a view to preventing disputes;
- e) Reviewing and approving program work plans and budgets, progress reports, financial reports and project technical and administrative reports;
- f) Reporting to NELTAC; and

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g) Undertaking such other functions as the Parties, in consultation with the NELSAP may mandate it to undertake.

Article 9: NELSAP-CU

NBI/NELSAP CU provides secretariat and administrative support to NELSAP. It is responsible for:

9.1 Recruiting staff in line with the NELSAP Human Resources Policy and procedures manual (2009);

- 9.2 Procuring and contracting consultants and other service providers;
- 9.3 Meeting the travel and accommodation costs of members of the RPSC and the National Coordination Office while engaged on the NBI/NELSAP activities under this MOU; and

9.4 Ljaison with development partners and management of program trust funds;

9.6Discharging such other functions related to the implementation of this MOU as are assigned to it by NELSAP in consultation with the State Parties.

Article 10: The Project Management Unit

10.1 Under the NBI NELSAP program a Project Management Unit has been established as the administrative and secretariat organ of the Parties in the basin.

10.2 The PMU shall establish, maintain and manage a data and information bank on the shared water resources of the Basin in line with the NBI Interim data and Information Sharing and Exchange Procedures and guidelines.

10.3 The seat or headquarters of the PMU shall be located within the Basin at Kakamega, Kefinco Offices, in Kenya but may be located at any other location as may be decided by the NBI in accordance with its procedures.

Article 11: The National Coordination Office and other national organs

11.1 The NBI Desk Office shall be the National Coordination Office. It is responsible within the member state for:

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- a) coordinating the activities undertaken under this MOU at country level;
- b) following up of the preparation and implementation of investment projects within the country; and
- c) facilitating linkages and synergy of the activities under this MOU to national policies, strategies and priorities.

11.2 A state party may at its discretion establish a national task team as it considers appropriate comprising Government officers from the ministries and departments concerned to facilitate the implementation within the member state of a project being implemented pursuant to this MOU.

PART VI: OTHER PROVISIONS

Article 12: Dispute Resolution

12.1 Any disputes between the Parties to this Agreement shall in the first instance be referred to NELTAC which shall endeavor to find an amicable solution to the dispute. In the event that NELTAC is unable to resolve the dispute either Party to the dispute may refer it to the Council of Ministers of NELCOM for resolution.

12.2 In the event of a dispute between the Parties which cannot be resolved by NELCOM the dispute shall be determined under the laws of the state party that is the Host State of the PMU.

Article13: Amendment

13.1 Any Party wishing to propose an amendment to this MOU shall send the proposal to the RSPC which in turn will make a recommendation for the amendment to the NELTAC.

13.2 Notice of any proposal to amend this MOU together with particulars of the proposed amendment(s) shall be given at least six months before the meeting of the RPSC at which the proposal to amend is to be tabled.

13.3. The NELTAC may on the basis of the proposal of RSPC recommend to the NELCOM that the MOU be amended.

13.4 The parties may, where necessary, amend the MOU following the coming into effect of the NBI CFA.

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13.5 Any proposal to amend may only be effected if adopted by all the Parties.

Article 14: Entry into Force

16 This MOU shall commence 30 days following its signing by all Parties and shall remain in effect until and unless it is terminated by the parties.

Article 15: Termination

15.1 This MOU shall terminate if a state party withdraws from it or where the parties otherwise decide to terminate it.

15.2 A state party wishing to withdraw shall give notice of its intention to the other parties and to NELCOM at least 12 months before the intended date of withdrawal.

15.3In the event of termination, the financial obligations of the State Parties arising under this MOU shall continue until all creditors have been discharged.

15.4In the event of termination all joint assets shall be liquidated and proceeds disposed of in accordance with the rules and procedures of NELSAP or as decided by NELCOM.

Article 16: Fairness

In entering into this MoU, the parties hereby declare their intention that this MoU shall operate among them with fairness and without detriment to the interest to any of them and none of the parties shall make undue gains at the other parties expense and that all provisions herein contained shall be applied in good faith.

Article 17: Legal quality and language

The parties acknowledge that this MoU is non-binding and does not give rise to any legal obligations on any of the parties. This MoU is drawn up in English, which language shall govern all documents, notices, communications and meetings for its performance or in any other way relative thereto.

IN WITNESS WHEREOF the authorized representatives of the parties hereto have signed this Agreement in three (3) original sets, each text being equally authentic, on the date and in the year first above mentioned.

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For the Government of Kenya

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0___ Prof. Juli Wakhign 04/June (2015

For the Government of Uganda

Ргој Ернгани Котинати 04/ Jane/2015

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For the NBI/NELSAP

boler. Drg. ELICAD ELLY NYABEEYA NELSAP REGIONAL COORDINATOR 4/6/2015 4

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