



THE REPUBLIC OF UGANDA

## **Ministry of Water and Environment**

**INTEGRATED WATER MANAGEMENT AND DEVELOPMENT PROJECT**

**No. P163782**

## **PROJECT IMPLEMENTATION MANUAL**

**January, 2019**

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## LIST OF ABBEVIATIONS AND ACRONYMS

AfDB	African Development Bank
BER	Bid Evaluation Report
CBA	Cost-Benefit Analysis
CLTS	Community-Led Total Sanitation
CMO	Catchment Management Organization
CMP	Catchment Management Plan
CPF	Country Partnership Framework
CRRF	Comprehensive Refugee Response Framework
DBD	Draft Bidding Documents
DED	Detailed Engineering Design
D-C	Design Consultant
DP	Development Partner
DSC-C	Design & Supervision Consultant
DUC	Dam Under Construction
DWD	Directorate of Water Development
DWRM	Directorate of Water Resources Management
EA	Environmental Assessment
EoI	Expression of Interest
FM	Financial Management
EBITDA	Earnings before Interest, Taxes, Depreciation, and Amortization
ESHS	Environmental, Social, Health, and Safety
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FIDIC	International Federation of Consulting Engineers
FMS	Financial Management Specialist
FSTF	Feacal Sludge Treatment Facility
GA	Gender Analysis
GBV	Gender-Based Violence
GFS	Gravity-Fed Systems
GHG	Greenhouse Gas

GIZ	German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit)
GoU	Government of Uganda
GRS	Grievance Redress Service
IA	Implementing Agency
IFMS	Integrated Financial Management System
IFR	Interim Financial Report
IPF	Investment Project Financing
IPILC	Integrated Program to Improve the Living Conditions
IRR	Internal Rate of Return
IT	Information Technology
IWMDP	Integrated Water Management and Development Project
IWRM	Integrated Water Resources Management
KfW	Kreditanstalt für Wiederaufbau, KfW Development Bank
KPI	Key Performance Indicator
LVEMP	Lake Victoria Environmental Management Program
M&E	Monitoring and Evaluation
MoFPED	Ministry of Finance, Planning, and Economic Development
MoPS	Ministry of Public Service
MWE	Ministry of Water and Environment
NDP	National Development Plan
NPF	New Procurement Framework
NPHC	National Population and Housing Census
NPV	Net Present Value
NRW	Non-Revenue Water
NSDS	National Service Delivery Survey
NWSC	National Water and Sewerage Corporation
OHS	Occupation, Health, Safety
O&M	Operation and Maintenance
OPM	Office of the Prime Minister
PAP	Project Affected Person(s)
P&CD	Planning and Capital Development

P&CDD	Planning and Capital Development Division
PCR	Physical Cultural Resources
PDO	Project Development Objective
PDU	Procurement Disposal Unit
PP	Procurement Plan
PPDA	Public Procurement and Disposal of Public Assets
PPP	Public-Private Partnership
PPSD	Project Procurement Strategy for Development
PQD	Pre-qualification Documents
PST	Project Support Team
QER	Quality- based Evaluation Reports
Q&CER	Quality & Cost –based Evaluation Reports
RAP	Resettlement Action Plan
REHOPE	Refugee and Host Population Empowerment
RFP	Request for Proposal
RfQ	Request for Quotation
RGC	Rural Growth Center
RPF	Resettlement Policy Framework
RHC	Refugee and Hosting Communities
RWSD	Rural Water and Sanitation Department
RWSIS	Rural Water and Sanitation Information System
RWSS	Rural Water Supply and Sanitation
RWSSD	Rural Water Supply and Sanitation Department
SA	Social Assessment
S-C	Supervision Consultant
SDG	Sustainable Development Goal
SDR	Special Drawing Rights
SEA	Sexual Exploitation and Abuse
SORT	Systematic Operations Risk-Rating Tool
SSIP	Sector Strategic Investment Plan
STD	Sexually Transmitted Disease
STEP	Systematic Tracking of Exchanges in Procurement



TA	Technical Assistance
ToR	Terms of Reference
UBOS	Uganda Bureau of Statistics
UNHCR	United Nations High Commissioner for Refugees
UO	Umbrella Organization
UPMIS	Utility Performance Monitoring and Information System
UWSA	Umbrella of Water and Sanitation Authority
UWSSD	Urban Water Supply and Sanitation Department
WASH	Water, Sanitation, and Hygiene
W-C	Works Contractor
WESLD	Water & Environment Sector Liaison Department
WESWG	Water and Environment Sector Working Group
WIS	Water Information System
WMDP	Water Management and Development Project
WMZ	Water Management Zone
WSDF	Water & Sanitation Sector Development Facility
WSS	Water Supply and Sanitation

# SECTION I – PROJECT OVERVIEW

## 1 Chapter 1 Introduction

### 1.1 Background

The Integrated Water Management and Development Project (IWMDP) is a Seven (7) year Government of Uganda (GoU) Project funded with loan worth US \$ 313 Million by the World Bank. The Project will support GoU through the Ministry of Water and Environment (MWE) and National Water and Sewerage Corporation (NWSC) in achieving the United Nation’s Sustainable Development Goals (SDGs), including SDG #6, ‘Ensure availability and sustainable management of water and sanitation for all.’ It is aligned to Vision 2040, which aims at transforming Uganda into a modern and prosperous country. In addition, it will support the fulfilment of the Second National Development Plan (NDPII) goals and priority actions namely;

(a) Increasing the stock and quality of strategic infrastructure to accelerate the country’s competitiveness; (b) Engaging human capital development; (c) strengthening mechanisms for quality, effective, and efficient service delivery; and (d) improving refugee management and host community development.

Water is at the center of the NDP II, which highlights interventions focused on (i) improving WSS services in priority, northern large towns envisioned as economic regional hubs; (ii) expanding WSS access to the poor and vulnerable in underserved areas, including districts hosting refugees; and (iii) strengthening water sector institutions to improve IWRM and service delivery.

In summary, a number of significant challenges remain including the need to: implement IWRM principles to ensure water availability to various competing users; address surface and groundwater pollution; increase water-for-production storage capacity; align policy, legislative and regulatory frameworks to lessons and outcomes of current reforms; adapt sanitation solutions to urban areas faced by rapid population density and rising pollution; reverse the decline in number of functioning water supply systems; and rehabilitate and expand water supply systems in small and large towns.

### 1.2 Synergies and Need for Harmonisation

The GoU represented by MWE together with the Development Partners (DPs) is implementing the Joint Water and Environment Sector Support Programme (JWESSP) 2013 -2018 – with a one year extension to June 2019. The stakeholders have concluded preparation for its successor programme, JWESSPII which will commence implementation in September 2018 – 2021. JWESSPII will contribute to poverty reduction in Uganda through the strengthening of a comprehensive and coherent approach to sector development, which contributes to the goals set by GoU in the NDPII 2016-2021.

The two programmes are implemented in close collaboration with DPs and other stakeholders in the sector and include the water sub-sector, as well as the environment sub-sector. DPs<sup>1</sup> are important

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<sup>1</sup> Development Partners in the Water and Environmental Sector at present are the African Development Bank (AfDB), Austria, Denmark, European Union, France, Germany and Japan International Cooperation Agency (JICA).

contributors to the water and environment sector in Uganda divided through sector budget support (SBS) and support through the Joint Partnership Fund (JPF) which is a basket fund arrangement between GoU and the DPs supporting the JWESSP. Harmonisation of donor support in the sector has improved the efficiency of support to the sector over the years mainly due to:

1. Effective donor coordination.
2. Effective annual joint development partners / GoU sector reviews.
3. Regular sector working group meetings both for water and sanitation and for environment sub-sectors.
4. Improved mobilization and allocation of resources.

As part of the identification/mobilization of expected donor support to the MWE, the DPs presently supporting the Ministry have made an initial inventory of DP interest areas of future support. IWMDP has been prepared in consultation with the other DPs in the sector to ensure harmonisation and coordination of reporting and monitoring.

### 1.3 Purpose and Layout of the Project Implementation Manual

#### **Purpose of the Manual**

This Project Implementation Manual (PIM) has been developed to guide the operations of the IWMDP. The PIM describes the common principles, procedures, and organizational responsibilities that apply across all project components. The guiding principles of the PIM shall be on the understanding that the IWMDP will be implemented by MWE through its Directorates, and the NWSC. All stakeholders will collaborate in working towards a more sustainable utilisation of the country's water resources and better water and sanitation services to the people of Uganda.

In recognition of this, the IWMDP will be implemented and coordinated in such a way as to ensure that stakeholders carry out their mandates with utmost integrity, transparency and accountability. For this, the PIM outlines the project aims, the guiding project principles, and rules of engagement among all stakeholders.

This PIM serves as a tool for supervision and monitoring by relevant GoU agencies and by the World Bank (WB). It is, however, not a rigid blueprint and will be updated if necessary, in consultation with project stakeholders, to ensure that it remains relevant and useful over the project period.

Finally, this manual is expected to assist all project stakeholders in their roles and responsibilities and thus allow for synergy and results focused project implementation.

#### **What the Manual Describes**

The PIM provides specific guidance on roles and responsibilities of institutions and individuals in carrying out their duties in key areas of project implementation. These key areas include:

1. Project management
2. Institutional responsibilities for implementation
3. Fiduciary responsibilities

4. Results monitoring and evaluation
5. Risk assessment and good governance
6. Environmental and social safeguards

### **Users of the Manual**

The primary users of the PIM will be the Project Implementation Teams (PIT) of MWE and NWSC including all component managers under Urban Water, Rural Water and DWRM, technical, financial, operational and administrative staff of the implementing agencies. A copy of the PIM will also be provided to all long-term national or international consultants and contractors engaged in the project implementation.

All major stakeholders, including World Bank, KfW, MoFPED, President`s Office, Office of the Prime Minister, Ministry of Justice and Constitutional Affairs, other sector Ministries, Government Agencies and Departments, District/ Municipal Local Governments (DLGs) and Sub County/ Town Council Local Governments, will also use this as a reference guide for project implementation. The PIM will be widely shared with a wider audience, including DPs, NGOs, CSOs and other interested parties. The specific roles and responsibilities of key partners to be discussed under Institutional Arrangements.

### **Structure of Manual**

The PIM is structured as follows: Chapter 2 provides an overview project summary, followed by Chapter 3 which provides a detailed description of the project components with respective activities; Chapter 4 explains the implementation arrangements. Chapter 5, financial management and disbursement Chapter 6, procurement Chapter 7, the environmental and social framework for the project and Chapter 8, Monitoring and Evaluation. The main text is accompanied by a number of annexes, including the detailed Institutional arrangements at component & sub component level including the names of the proposed implementing staff, organizational charts, detailed M&E indicators the Software steps and the project`s procurement manual.

## Chapter 2: PROJECT DESCRIPTION

### 2.1 Summary Project Description

The design of IWMDP was informed by lessons learned from the implementation of World Bank funded Lake Victoria Environmental Management Project II (LVEMP II) and the Water Management and Development Project (WMDP). These projects financed major water-related investments in priority urban areas and various measures to improve IWRM planning and development. The World Bank has also supported rural sector through the Uganda Water Small Towns and Rural Growth Areas Project, which provided technical assistance (TA) and capacity building for the development of the water sector. The IWMDP builds on the achievements of the WMDP, paying special attention to the vulnerable Northern and Mid- Western regions, refugee hosting communities, and areas with low WSS coverage by creating an enabling analytical, infrastructural and institutional platform to improve water resource management, productivity and service delivery and to reduce vulnerability to water shocks. The IWMDP will consolidate the progress made in implementation of IWRM over the years by MWE.

The Project will focus on three strategic areas: (i) strengthening WSS infrastructure and catchment management measures in targeted areas; (ii) supporting water-related institutions (NWSC, MWE, local government, and service providers) in their efforts to establish and improve operational efficiency and service quality in small towns and rural areas; and (iii) strengthening national and regional capacity to improve IWRM.

The Project's implementation approach will consider spatial differences between rural, small towns and urban large towns. It will also ensure that citizen engagement strategies, gender approaches, and sanitation and hygiene campaigns are included to foster behavioral change and ownership among the population. To ensure sustainability and increase resilience to climatic variability, the Project will integrate WSS infrastructure investments with water source and catchment protection measures, comprehensive sanitation planning and service delivery support.

### 2.2 Project Development Objectives

The project development objective (PDO) is to improve access to water supply and sanitation services, capacity for integrated water resources management and the operational performance of service providers in Project areas.

### 2.3 PDO-Level Results Indicators

The PDO will be measured by the following indicators:

- Direct Project beneficiaries (number), of which female (%) and refugees (%);
- People provided with access to improved water source by the Project (number), of which female (number), refugees (number), and citizens in host communities (number)
- People provided with access to improved sanitation by the Project (number), of which female (number), refugees (number), and citizens in host communities (number)
- Area under integrated water resources management in selected catchments supported by the project ( Ha);
- Percent of the service areas achieve cost recovery ratio of 1.1 under the project (percentage)

## 2.4 Project Geographical Area and Beneficiaries

The Project will support WSS infrastructure investments in big and small towns located primarily in Northern and Eastern regions and RGCs in Central and Midwestern regions. This is in addition to support to refugee hosting districts and refugee settlements. Specific water resources measures will also be implemented in the Upper Nile and Kyoga WMZs where a number of CMPs have been prepared and where most of WSS infrastructure investments proposed under this Project are located.

The combined direct beneficiaries to benefit from the project is approximately 1,403,000 people. The population will benefit from improved access to safe drinking water and increased coverage of WSS services. Table 1.2 provides the summary of project coverage and beneficiaries.

Table 1 Summary of Planned Project Beneficiaries by Component

Component	Coverage	Estimated Beneficiaries
Component 1.1	5 Small Urban Towns	236,214
Component 1.2 and 1.3	RGCs and Support to Districts Hosting Refugees	364,214
Component 2	3 Large Towns and Refugee Hosting District	628,674
Component 3	Albert Nile, Aswa, Awoja and Lwakhakha WMZs	165,754

The indirect beneficiaries of the Project will include: local governments who will work with MWE and NWSC to develop catchment action plans and to improve the framework for decentralized management and development of water resources; private operators who will operate and manage small town water supplies; and local unskilled people provided with temporary employment at the investment sites.

## 2.5 Project Components

The IWMDP is comprised of four (4) components, namely: (1) WSS in Small Towns and RGCs and Support to Districts Hosting Refugees; (2) WSS in Large Towns and Support to a District Hosting Refugees; (3) Water Resources Management and; (4) Project Implementation and Sector Support.

### 2.5.1 Water Supply and Sanitation in Small Towns and Rural Growth Centers and Support to Districts Hosting Refugees

a) Carrying out of activities to improve water supply and sanitation in selected Small Towns (STs) and Rural Growth Centers (RGCs) in the Recipient's territory, consisting of: (i) constructing and rehabilitating water supply and sanitation facilities, as well as providing associated services, including engineering, environmental and social studies and supervision of construction activities; (ii) preparing and implementing sanitation plans in selected Small Towns; (iii) strengthening the capacity of the Umbrella Water Authorities in the areas of operational and financial management, including the establishment of a remote monitoring system for rural water systems; and (iv) carrying out of environmental and social management activities to protect water sources and sensitize communities.

b) Carrying out of activities to improve water supply and sanitation in Districts Hosting Refugees, said activities to consist of: (i) constructing and rehabilitating water supply and sanitation facilities, as well as providing associated services, including engineering, environmental and social studies and supervision of construction activities; (ii) preparing and implementing of sanitation plans; (iii) preparation and implementation of micro catchment management plans; (iv) strengthening the capacity of Umbrella Water Authorities in the areas of operational and financial management, including the establishment of remote monitoring system for rural water supply systems; (v) carrying out of environmental and social management related activities to: (A) protect water sources and sensitize communities; and (B) address specific needs of host communities and refugees; and (vi) strengthening the capacity of the MWE to develop and carry out water supply and sanitation sector policies and programs promoting more sustainable and efficient service delivery at refugee settlements.

### 2.5.2 WSS in Large Towns and Support to a District Hosting Refugees

a. Carrying out of activities to improve water supply and sanitation, said activities to consist of: (i) constructing and rehabilitating water supply and sanitation infrastructure in the municipality of Mbale, including implementing the recommendations from the Augmented Water Supply Study; (ii) constructing water supply facilities for the municipality of Gulu; (iii) undertaking construction supervision activities and engineering and environmental studies, including the Augmented Water Supply Study; (iv) strengthening the capacity of the NWSC in the areas of operational and financial management to support improved performance in the Project supported areas; and (v) carrying out of environmental and social management activities to protect water sources and sensitize communities.

b. Carrying out of activities to improve water supply and sanitation in Adjumani District, said activities to consist of: (i) constructing and rehabilitating water supply and sanitation facilities, as well as providing associated services, including engineering, environmental and social studies and supervision of construction activities; (ii) preparation and implementation of sanitation plans; and (iii) carrying out of environmental and social management activities to protect water sources and sensitize communities.

### 2.5.3 Water Resources Management

a. Carrying out of catchment management and restoration activities in Sub-Catchments, said activities to consist of: (i) undertaking catchment management measures, including soil and water conservation, riverbank protection and restoration; and (ii) providing alternative livelihoods for affected communities.

b. Supporting integrated water resource management (IWRM) in the Recipient's water and environment sectors, said activities to consist of: (i) preparing a water resources strategy for the Albert Water Management Zone (WMZ); (ii) preparing catchment management plans and related technical studies for Priority Sub-Catchments; (iii) undertaking a national groundwater management study; and (iv) strengthening water resource monitoring and information systems, including (A) the installation of the Water Information System at the national and Water

Management Zone levels; (B) the installation of hydrologic monitoring systems; and (C) the rehabilitation of the National Water Quality Reference Laboratory.

#### 2.5.4 Project Implementation and Institutional Strengthening

Carrying out of Project implementation and coordination support activities, said activities to consist of: (i) coordinating planning, monitoring, reporting and supervision of the Project; (ii) providing training to MWE and NWSC on the Association's financial management, procurement, environmental and social policies and procedures; and (iii) establishing a Project support team.

Undertaking of institutional strengthening activities, said activities to consist of: (i) preparing a water supply and sanitation sector financing study to support implementation of the Recipient's Strategic Sector Investment Plan; and (ii) strengthening MWE's regulatory functions at the regional level.

### 2.6 Supervision, Monitoring and Evaluation

Supervision, monitoring and evaluation of project will be undertaken at the community, district/ site and national levels. All relevant technical and political stakeholders shall be involved in the monitoring process. Supervision, monitoring and evaluation will entail field visits to subproject sites, review of sub project documentation, specific studies, periodic reviews and end of project evaluations, with a view to:

- ◆ Providing technical support and guidance to the site implementers.
- ◆ Reviewing progress in sub-project implementation vis-a-vis sub-project work plans.
- ◆ Reviewing progress in implementation of recommendations of previous supervision and monitoring reports.
- ◆ Assessing progress towards meeting the subproject objectives.

Monitoring reports using standardized format shall be prepared by all persons participating in each monitoring exercise to inform subsequent visits and as part of accountability for the Project resources utilized in the exercises. A Mid Term Review will be carried out to evaluate implementation progress and identify potential issues in need of adjustments. An end of project evaluation will also be conducted two months before Project closing to assess whether the intermediate results and PDO-level indicators were achieved, relevance of the project to context, efficiency and effectiveness in service delivery, the sustainability of the results, and lessons learned.

### 2.7 Implementation Arrangements

The Project will be implemented by two agencies; MWE and NWSC – with the oversight of the Water and Environment Sector Working Group and relevant governing bodies (e.g. NWSC Board of Directors) and supported by existing decentralized regional structures and entities (including Local Governments, WMZs, UOs, NWSC town offices, etc.) and their partners to deliver desired results. To facilitate integration, formal arrangements, such as Memoranda of Understanding (MoUs) outlining joint responsibilities, will be signed between the MWE and other stakeholders outside the Ministry that are responsible for specific activities.



In line with the GoU Sector Wide Approach (SWAp) policy, the Project's institutional and implementation arrangements have been designed to align with existing structures. This will help build on the comparative advantages and experience of the various departments in the Ministry, enhance coordination and synergies across the various departments, and promote the principles of integrated water resources management across the water and environment sectors from the central to the local levels.

Each project Component/ Sub-component will be implemented by the relevant departments in MWE and NWSC as below:

**Component 1:** Sub-component 1.1 will be implemented jointly by Urban Water Supply and Sanitation Department (Small Towns). Sub-components 1.2 and 1.3 will be implemented by RWSSD in collaboration with regional TSUs. Both departments are under Directorate of Water Development (DWD), MWE.

**Component 2:** Will be semi autonomously implemented by NWSC under Planning and Capital Development Division.

**Component 3:** This will be implemented by the Directorate of Water Resources Management in collaboration with the various regional WMZs.

**Component 4:** The overall coordination responsibility for the above 3 components (UWSSD, RWSSD, DWRM, and NWSC – self financed) shall be undertaken by Water and Environment Sector Liaison Department (WESLD), MWE.

For detailed implementation arrangements description see Chapter 4.

## 2.8 Coordination Mechanisms

As discussed in the PAD Page 18, the overall coordination and communication of IWMDP shall be undertaken by WESLD on behalf of other Agencies and Departments (MWE's UWSSD, RWSSD, DWRM, and WESLD and NWSC' P&CDD) that are involved in the Project. The specific roles and responsibilities of key stakeholders and Project implementation team are discussed in Chapter 4. Nonetheless, some of the major coordination activities shall include;

- a. **Monthly Project Management Meeting:** Based on lessons learned from WMDP, the Project shall continue with monthly project management meetings targeting all Project Implementation/ Component Team members. The essence is to review implementation progress per component/ sub component, emerging issues for joint learning and draw action points for following month.
- b. **Site meetings:** These meetings are often conducted at each infrastructure construction sites. The meetings involves all stakeholders from client team, consultants, contractors, district technical and political leadership, local community leaders and beneficiaries. It a platform used to update stakeholders on plan and progress in implementation, address salient issues and provide opportunity for getting feedback as well as ensuring local ownership of investments.

- c. Source protection and catchment management: Source protection and catchment management interventions shall be implemented with the involvement of the community, local government and MWE/NWSC. The PIT shall offer technical guidance and all the necessary support for source protection and catchment management (in areas of community engagement and specific interventions/activities to be undertaken). These stakeholders shall undertake ecosystem assessments, and hold community awareness creation & dialogue meetings to create awareness on the need for source protection and catchment management. Joint planning with the community shall be undertaken; interventions to be undertaken agreed and roles allocated to the stakeholders. Full involvement of the community and the local government stakeholders at all stages of source protection and catchment management shall be pursued.
- d. PST Involvement: The PST comprising Financial Management, Procurement, Safeguards and M&E specialists shall provide strategic and operational guidance to all components. The different PST experts will act as one-stop focal persons in coordinating implementation activities by the various components/ sub components on routine basis for uniformity and learning.

## 2.9 IWMDP Sustainability Plan

The detailed project sustainability plan is well articulated in the PAD Page 18 – 19. In addition, some of the additional sustainability plans include the following;

- i. Institutionalised project implementation. Proposed institutional strengthening activities include use of umbrella organizations, Rural Growth Centres, NWSC district offices and WMZs for effective project implementation.
- ii. Catchment management processes and planned measures. The catchment management measures are essential in safeguarding the future quantity and quality of water sources and to adapting to climate change. The Developer (MWE and NWSC) shall incorporate catchment management measures with a view of enhancing the environmental conditions in the catchment for a sustained hydrological regime which in a long run shall sustain the water demands of the established systems. The Project will enhance the capacity of the MWE, NWSC, WMZ, Umbrella Organizations and CMOs to improve the catchment action planning process, support the implementation of priority investments and studies.
- iii. Leveraging on existing NWSC capacity for large town management.
- iv. Sanitation planning with immediate, midterm and long term actions. All targeted districts are being encouraged to include this as part of their budget to enhance sustainable sanitation improvement. The planning mainly involves mobilizing and sensitizing communities using different platforms to eliminate open defecation, promote personal and household hygiene and behavioural change.
- v. Source protection activities as stipulated in the MWE Water Source Protection Strategy.

## 2.10 Project Cost and Financing

The Project is estimated to cost US\$313 million. IDA will provide Project financing in an amount equivalent to US\$280 million, of which US\$81.9 million will be used to finance the refugee and host community subcomponent. The US\$81.9 million will be financed by the IDA 18 sub-window for refugee and host communities (US\$25 million credit and US\$25 million grant) and by national IDA (US\$31.9 million). The GoU will be responsible for counterpart financing of US\$8 million to cover a portion of investment and operating costs, the acquisition of land, and any compensation due to people affected by the Project. The KfW Development Bank will finance US\$25 million of the new water supply scheme in Gulu under Component 2. Table 2 below provides a summary of the cost estimates and proposed financing.

**Table 1: Project Cost Estimate and Financing**

Project Description	Total Project Cost	Total IDA Amount	IDA 18 National Credit	IDA 18 RW Credit	IDA 18 RW Grant	Counterpart Funding	KfW for Gulu
<b>Component 1: WSS in Small Towns and RGCs and Support to Districts Hosting Refugees</b>	<b>159.0</b>	<b>155.0</b>	<b>112.0</b>	<b>21.5</b>	<b>21.5</b>	<b>4.0</b>	
1.1 WSS in Small Towns and RGC	105.5	103.0	103.0			2.5	
1.2 Support to Districts Hosting Refugees	53.5	52.0	9.0	21.5	21.5	1.5	
<b>Component 2: WSS in Large Towns and Support to District Hosting Refugee</b>	<b>118.0</b>	<b>90.0</b>	<b>75.0</b>	<b>7.5</b>	<b>7.5</b>	<b>3.0</b>	<b>25.0</b>
2.1 WSS in Large Towns	99.5	72.0	72.0	0.0	0.0	2.5	25.0
2.2 Support to District Hosting Refugees	23.5	23.0	3.0	7.5	7.5	0.5	
<b>Component 3: Water Resource Management</b>	<b>25.5</b>	<b>25.0</b>	<b>25.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	
<b>Component 4: Project Implementation and Institutional Strengthening</b>	<b>5.5</b>	<b>5.0</b>	<b>5.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	
<b>Total Project Costs</b>	<b>313</b>	<b>280</b>	<b>217.0</b>	<b>29.0</b>	<b>29.0</b>	<b>8.0</b>	<b>25.0</b>
<b>Total Financing Required</b>		<b>280.0</b>					

## SECTION II – DETAILED DESCRIPTION OF PROJECT COMPONENTS

### Chapter 3: DETAILED PROJECT COMPONENTS

#### 3.1 Introduction

The Project will support WSS infrastructure investments in small towns located primarily in Uganda's Northern and Eastern regions and in RGCs in the country's Central and Midwestern regions. The water resources activities are designed to consolidate IWRM in overall water sector planning and infrastructure development. Specific water resources measures will be conducted in the Upper Nile and Kyoga WMZs where CMPs have been prepared for sub-catchments and where most of the WSS infrastructure investments proposed under this Project are located. The Project will integrate infrastructure investment, water source and catchment protection measures, and comprehensive sanitation planning to ensure sustainability and increased resilience to climate change and variability. The Project will provide TA aimed at consolidating water sector reforms to support efficient and effective service delivery models for small towns and RGCs.

With financing from the IDA 18 Sub-Window for Refugees and Host Communities (RHC), the Project will support activities designed to improve the sustainable provision of WSS services to host communities and refugee settlements focusing on the districts of Yumbe, Arua, Moyo, Adjumani in the West Nile and Lamwo in the Northern Region, where about 70 percent of the refugees in Uganda are being hosted, as well as the Mid-west district of Kiryandongo, which is currently experiencing large inflows of refugees from South Sudan.

The project includes the following four components;

#### 3.2 Detailed project Components

##### 3.2.1 Component 1 –WSS in Small Town and RGCs (US\$163.3 million, of which National IDA US\$ 110.1 and IDA 18 Refugee Sub-Window US\$50 million)

###### 3.2.1.1 *Subcomponent 1.1: Support to Small Towns and Rural Growth Centers (US\$ 79.7 million of which National IDA US\$ 78.1 million)*

This subcomponent will finance activities designed to improve WSS services in 5 small towns and RGCs, including:

**1. Water Supply Investments:** Piped water supply schemes either fed by surface water (river/lakes) or high yield boreholes.

For surface water systems, activities include:

- (i) construction of new surface water intake structures;
- (ii) construction of new water treatment plants; and
- (iii) construction and rehabilitation of transmission and distribution systems. The transmission and distribution systems will include water mains, reservoirs, and distribution networks, water connections, macro and micro metering and pressure monitoring systems. The preference is to target gravity flow schemes to reduce

energy costs, but pumping is included for cases where there is no potential for gravity flow schemes and there is poor ground water potential.

For high yield boreholes, the MWE is introducing solar-powered water supply schemes to eliminate long queues and supply more people at each source. The scheme is comprised of a borehole equipped with a solar-powered submersible pump, storage and a distribution pipe network (including public stands, household connections, and meters). The capital cost is high but is balanced by the benefits of reduced O&M costs over the lifespan of the systems. The water supply systems planned under this Project include borehole yields of greater than 5m<sup>3</sup>/hr and aim at serving a population between 1,500 to 5,000 people in RGCs.<sup>2</sup> The approach targets areas that have limited surface water resources but have good ground water potential as per groundwater assessments and have limited access to the electricity grid. The targeted RGCs have water access levels below 40 percent.

**2. Sanitation:** The Project will finance institutional sanitation facilities at markets, health posts and schools in the Project areas. The benefitting schools will have pupil-stance ratios over 70:1 as well as committed school management and administrative teams. Other benefitting public places will be determined by the state of the structure, availability of land, number of intended users, and local government development plan for the specific area. The component will support the establishment of proper fecal sludge management systems in small towns that include collection, treatment, reuse and disposal, including the construction of FSTFs.

The first phase of sanitation-focused investment will include the construction of FSTFs in the small towns of Busia, Kumi-Ngora-Nyero, Rukungiri and Koboko based on high demand, improved fecal sludge management, and clustering opportunities with other towns. After completion of full sanitation service chain studies, fecal sludge related investment in other small towns (financed by IWMD or WMDP) may be included. TA will be provided to targeted small towns to develop integrated sanitation plans (i.e. fecal sludge, solid waste and storm water) in the context of land use planning.

Finally, the Project will support sanitation and hygiene promotion activities, including the application of CLTS for mobilizing communities to eliminate open defecation (OD) and sanitation marketing to change behaviors and to scale-up effective and sustainable demand and supply for improved sanitation and hygiene by using social and commercial marketing practices. Sanitation and hygiene promotion activities applied to the Project will follow specific steps and guidelines included in the MWE's Hygiene Education and Sanitation Promotion Template.

**3. Support to service providers:** The Component will support an overall utility assessment and business plan for each of the participating UWSAs/UOs. The plans will focus on NRW, billing and collection systems, and asset management. The Project will finance specific activities derived from the business plans that are aimed at achieving financial viability. The Project propose to deliver this support to the UWSAs/UOs through professionalization contracts under which a private firm would be contracted to help the UWSAs/UOs implement and assimilate standard operating procedures and

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<sup>2</sup> The MWI supports three categories include Mini (yield 1-3m<sup>3</sup>/hr), Medium (yield 3-5m<sup>3</sup>/hr) and Large (>5m<sup>3</sup>/hr) solar powered water systems.

systems (for network, commercial, administrative and financial management). The Project will also support data collection and reporting, including remote monitoring systems for solar-powered piped water schemes, which will allow for centralized monitoring of the functionality and operational efficiency of these systems, as well as overall utility performance monitoring under the UPMIS. Given that the NWSC has a good track record and solid utility management practices, the Project will focus on operationalizing the MWE's guidelines for transferring small towns to NWSC. The Project will support the application of community mobilization activities to ensure the communities and local authorities are informed on the new service delivery model. Finally, this Component will also include training on designing and operating/maintaining solar piped water schemes.

**4. Environmental and social management:** The Project will finance activities included in the safeguards instruments (ESMPs and RAPs). Although also included in the safeguards documents, it is important to highlight the following themes: water source protection, community mobilization and sensitization, and cross-cutting activities, such as mainstreaming gender, HIV and Gender Based Violence (Sexual Exploitation and Abuse prevention activities).

**5. Catchment/water source protection:** These activities will be carried out in all water supply systems financed by the Project to ensure that the quantity and quality of water provided by the respective water sources does not deteriorate in the future. Activities will be derived from catchment/water source protection plans that have been prepared under the WMDP or will be prepared as part of IWMDP. The plans include the following objectives: (i) to prepare micro catchment management plans around water sources; (ii) to implement identified micro-catchment management measures such as soil and water conservation, tree planting, wetland restoration, river bank restoration etc to ensure the integrity and security of the water sources; and (iii) to support the communities in the micro-catchment to carry out livelihood improvement activities as will be identified in the micro catchment management plans, such as apiculture, fish farming, fruit tree growing etc.

**The main activities will include:**

**Planning:** Catchment assessments will delineate the catchments and establish baseline conditions. Site-specific water source and micro-catchment protection plans will be developed and implemented for every water supply system in accordance with the MWE's Framework and Guidelines for Water Source Protection (2012). These will be undertaken with guidance and supervision by DWRM and its decentralized structures.

**Water sources protection** activities will be undertaken by the contractors for each water supply system where possible. The activities will include; education and sensitization activities to promote friendly livelihood activities, training women and youth groups on tree nurseries. In addition, the activities will involve conducting regular environmental monitoring, auditing and inspection to ensure compliance.

**6. Community mobilization and sensitization:** All Project investments will be accompanied by a community participatory approach through the Project cycle – identification/preparation, execution, and operation to foster behavior change and sustainability. These activities will be guided by the MWE's Software Steps (Steps in Implementation of Water and Sanitation Software Activities, 2012). The Steps provide guidance on awareness creation, capacity building, service provision and follow-up.

There are 19 steps, which are grouped into four phases: (i) the General Planning and Advocacy Phase; (ii) the pre-construction, mobilization, and training phase, (iii) the construction phase; and (iv) the post-construction phase. The Software Steps document has been included as **Annex 2** to guide the implementation of the ESMPs and the cross cutting activities/issues.

**7. Cross cutting activities:** The Project will enhance the capacity for gender mainstreaming in the WSS sector by supporting the implementation of guidelines for the integration of gender in water programs and activities, as well as improving the M&E system to be more gender responsive in line with the MWE's Water and Sanitation Gender Mainstreaming Strategy. Furthermore, the Project will support mainstreaming HIV/AIDS and Gender Based Violence – GBV (Sexual Exploitation and Abuse - SEA) prevention in the sector at the local government levels. The Project will be guided by the Water Sector HIV/AIDS Strategy. HIV/AIDS prevention can be mainstreamed through incorporating HIV/AIDS and GBV (SEA) prevention and safe sex messages into community sensitization and training activities. Likewise, contractors should be informed about HIV/AIDS and GBV/SEA prevention to influence their behavior in the communities where they operate. These activities will be budgeted for and included in the ESMP.

*3.2.1.2 Subcomponent 1.2: Support to Refugee and Host Communities (US\$83.6 million, of which National IDA US\$31.9 million and IDA 18 Refugee Sub-Window US\$50 million)*

This subcomponent will, with financing from the IDA 18 Refugees Sub-Window, support activities designed to improve the sustainable provision of WSS services to refugee settlements and host communities.<sup>3</sup> This sub-component will target the districts of Yumbe, Arua, Moyo, Adjumani, and Lamwo in northern West Nile, where about 70 percent of the refugees in Uganda are being hosted, as well as the mid-west district of Kiryandongo, which is currently experiencing large daily inflows of refugees from South Sudan.

This sub-component will finance inter alia:

- (i) construction and rehabilitation of WSS infrastructure investments and associated consulting services, such as engineering and safeguards studies and construction supervision;
- (ii) TA activities to support a comprehensive sanitation approach, including fecal sludge management assessments and integrated sanitation plans in small towns;
- (iii) capacity building and institutional strengthening to support the operational and financial performance of the service provision structure;
- (iv) environmental and social management related activities, including water source protection and community mobilization and sensitization, that take into account the specific social dimension of working with refugees and host communities; and

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<sup>3</sup> Uganda's eligibility for the IDA 18 Refugee Sub-Window financing is stipulated in the September 29, 2017 Board document titled "IDA18 Refugee Sub-Window – Board Consultation on Eligibility – AFR, MNA, SAR."

- (v) TA and institutional strengthening to support the development and implementation of sector policies and programs to promote more sustainable and efficient service delivery in the refugee settlements.

This sub-component will take a long-term and systematic approach to WSS service delivery at the district level while addressing some immediate needs at the community level. This approach is aligned with the GoU and UNHCR's approach to shift from a humanitarian aid response to a development one. The subcomponent will include complementary water source management and catchment protection measures to support refugee hosting districts build their resilience and capacity to respond to water related shocks. Depending on their location, refugee settlements will be served either through individual water systems or by water extension networks from the sub-county systems. This will greatly reduce water trucking to the settlements and will provide cheaper and more reliable safe water to refugees. In addition, the investments will improve overall infrastructure and water supply needs in the host communities.

### *3.2.1.3 Proposed Activities:*

#### *3.2.1.4 Implementation*

Component 1 will be implemented by the DWD, MWE and its regional deconcentrated TSU offices in coordination with the local authorities (Districts/ Municipalities). The refugee host community subcomponent will be implemented by the RWSSD, MWE in close consultation with other key stakeholders, such as the OPM, the UNHCR and local authorities. Development and implementation of micro- catchment management plans in refugee settlements will be coordinated by DWRM and its deconcentrated structures (discussed under implementation arrangement of component 3). Detailed engineering design and biddings documents are completed for the Busia WSS subproject.

With the support of WMDP and counterpart funds, MWE shall engage consultancies to develop feasibility studies, detailed designs and safeguards documents for most of the proposed activities under this component. For some sanitation and water supply investments, studies will be financed during the first phase of Project implementation. The Project will also support construction supervision to oversee and provide quality control of the detailed designs and overall construction, including compliance with environmental and social safeguards.

#### **The roles of TSU in supporting component implementation:**

- i. Awareness creation and stakeholder mobilization to participate in component activities,
- ii. Public health and hygiene monitoring and improvement,
- iii. Take lead in water sources/catchment protection activities,
- iv. Water supplies quality monitoring and general resource monitoring,
- v. Water resources demand management,
- vi. Compliance monitoring and enforcement,

#### **Roles of District/ Municipal and other local Authorities:**

- i. Awareness creation and general public sensitization and mobilization,
- ii. Participation in water supplies and sanitation planning and budgeting,



- iii. Active participation of relevant technical officers in the implementation processes e.g. district water officer, natural resources/ environment officer as well as community development officers,
- iv. Leveraging and advocacy for more funding from other sources for sustainability of project investments,
- v. Engagement in monitoring and knowledge sharing activities.

### 3.2.1.5 Selection criteria

The selection of Project areas was based on consultations with key stakeholders, the CPF, the MWE's Sector Development Plan, the NWSCs' Capital Improvement Plan, as well as the potential to carry-over subprojects from the WMDP. A summary of the selected service areas and the corresponding selection criteria are included below:

**Table 2: Summary of selection criteria for component 1**

<b>Component 1 – Urban Small-town and Rural Growth Centers Water Supply and Sanitation</b>		
<b>Components</b>	<b>Selected service areas</b>	<b>Selection criteria</b>
Support to small towns	Busia Namungalwe-Kaliro Kyegegwa-Mpara-Ruyonza (west) Namasale	Subproject included in WMDP (Busia).  Priority to the northern and eastern regions given socioeconomic indicators; linked to the NDPII equity strategy.  Readiness – availability of master plans, feasibility studies and/or DED (only for Busia).  Clear service delivery model.  Reasonable per capita investment cost (less than US\$150 per capita) with the opportunity to leverage economies of scale by including other small towns (cluster approach).
Support to RGC	Nyamugasani RGC cluster (Kyarumba, Kyondo, Lake Katwe, and Kisinga) – Kasese district.  Bitsya –Buhweju district  About 30 RGCs located in 20 districts – solar piped water schemes.	District with high cholera cases and low water coverage  Readiness – availability of master plan and preliminary feasibility studies. Adequate source water identified.  Clear service delivery model identified  RGCs with access to safe water below 40 percent (Central and Western Regions) – criteria for solar piped water schemes.
Support to Refugee and Host Communities	Yumbe, Arua, Adjumani, Moyo Lamwo, and Kiryandogo	Refugee hosting districts located in the West Nile and Northern Region.  Sub-counties of host districts with access to safe water below 67 percent.

		Water stress - host districts require bulk water transfer from other areas. Clear service delivery model identified.
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### 3.2.1.6 Risks to RWSSD implemented project component and mitigation measures

**Table 3: Risks to RWSSD implemented project component and mitigation measures**

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
Difficulties in Acquiring Land for Civil Infrastructure			
Large projects require Land for project infrastructure and delayed acquisition will delay the project.	High	High	Land should be identified during design and RAPs prepared and approved, and land acquired early before implementation commences
Problems of Compensation and Resettlements			
Communities have become increasingly aggressive to public projects and are likely to cause delays in demanding for compensation for land, property and crops affected during project implementation	High	High	The procedures for compensation and resettlements should be made more flexible to make it easy to compensate and resettle PAPs
Lack of Experience in Implementation of Social and Environmental Safeguards in the Department			
The RWSSD staff have limited experience in implementation of World Bank projects and this may delay or even lead to cancellation of certain projects due to poor implementation of safeguards	Medium	Medium	There is need for training and capacity building of staff in aspects of social and environmental safeguards implementation
Delays in Project Implementation			
Delays in project implementation due to approvals for critical project milestones will impact on the project implementation time frame, and subsequently the costs.	Medium	High	The persons charged with the decision making during implementation of this project both at the Bank and Implementing Agencies should be swift in decision making and approvals bearing in mind the implications of delayed decisions
Procurement delays			
Procurement processes are long and a series of decision centres will delay project implementation	High	high	Project procurement should start at least 6 months before implementation starts
Unrealistic Project Timing			
Experience from WMDP has shown that many infrastructure projects were allocated little time and most of the projects faced cancellation due to slow progress	High	high	The project time frame should be realistically derived to avoid cases where project implementation is stressed due to little time allocated to complete projects. Most of the projects require at least 6 months for mobilisation to be realistic
Increase in project Costs			

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
Increase in construction costs due to rising costs of essential commodities on world market, local inflation and volatile financial market	med	high	From previous trends, such occurrences are anticipated and the engineering estimates shall take this into consideration. Secondly, the implementing agencies shall strive to ensure that the project implementation is expedited to minimise time related costs.
High influx of refugees			
High inflow of refugees into the country could put a lot of stress into project plans and implementation arrangements	High	medium	<p>Water supply and sanitation facilities should be designed to have elastic enough to accommodate any influx of refugees but also capacity to scale down production in case the refugees return</p> <p>There should be conflict resolution mechanisms such as Grievance Resolution Mechanism to resolve potential conflicts associated with the influx of refugees and their interactions with host communities.</p>

### 3.2.1.7 The activity plan for Sub-component: Rural Growth Centres

**Table 4: The activity plan for Rural Growth Centers**

OUTCOME	MAIN ACTIVITY(S)	Responsible Agency	Deliverable(s)	Detailed Activities
1.1.1 construction and rehabilitation of cost-effective WSS infrastructure investments	Design and construction of large gravity flow schemes	RWSSD	<ul style="list-style-type: none"> <li>- Nyamugasani in Kasese gravity flow scheme constructed</li> <li>- Bitsya gravity flow scheme in Buhweju constructed</li> </ul>	<ul style="list-style-type: none"> <li>✓ Engineering designs of system components</li> <li>✓ Procurement of construction and supervision consultancy contracts</li> <li>✓ Procurement of safeguard consultants</li> <li>✓ Procurement of software consultants</li> <li>✓ Training and capacity building of department staff</li> </ul>
	Design and construction of solar powered piped water supply systems	RWSSD	<ul style="list-style-type: none"> <li>- 32 large solar powered piped systems constructed</li> </ul>	<ul style="list-style-type: none"> <li>✓ Engineering designs of system components</li> <li>✓ Procurement of construction and supervision consultancy contracts</li> <li>✓ Procurement of safeguard consultants</li> <li>✓ Procurement of software consultants</li> <li>✓ Training and capacity building of department staff</li> </ul>
	Design and construction of sanitation facilities	RWSSD	<ul style="list-style-type: none"> <li>- 4 public latrines constructed</li> <li>- 56 institutional latrines constructed</li> </ul>	<ul style="list-style-type: none"> <li>✓ Engineering designs of system components</li> <li>✓ Procurement of construction and supervision consultancy contracts</li> <li>✓ Procurement of safeguard consultants</li> <li>✓ Procurement of software consultants</li> <li>✓ Training and capacity building of department staff</li> </ul>

OUTCOME	MAIN ACTIVITY(S)	Responsible Agency	Deliverable(s)	Detailed Activities
	Environmental and social management related activities, including community mobilization and sensitization, and hygiene and sanitation activities	RWSSD	<ul style="list-style-type: none"> <li>- RAP consultants Procured</li> <li>- RAPs and ESMPs Prepared</li> <li>- RAPs and ESMPs Approved</li> <li>- Compensations and resettlements done</li> <li>- Community mobilisation and sensitisation done</li> <li>- Hygiene and sanitation campaigns done.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Procurement of RAP consultants</li> <li>✓ Preparation of RAPs and ESMPs</li> <li>✓ Approval of RAPs and ESMPs by the Chief Government Valuer</li> <li>✓ Carrying out compensations and resettlements</li> <li>✓ Community mobilisation and sensitisation</li> <li>✓ Hygiene and sanitation promotions and campaigns</li> </ul>
	Carry out source protection and catchment management measures.	RWSSD/ DWRM	<ul style="list-style-type: none"> <li>- Stakeholder driven micro-catchment management and source protection plans developed and adopted</li> <li>- Physical and natural water infrastructure constructed or renovated</li> </ul>	<ul style="list-style-type: none"> <li>✓ Community-driven development of micro-catchment management and source protection plans.</li> <li>✓ Development of effective community agreements/bylaws on natural resources management</li> <li>✓ Development and application of a stakeholder driven monitoring system for preparation and implementation of micro-catchment management plans</li> <li>✓ Development of guidelines for authorities, communities and other stakeholders for implementation of water related catchment interventions</li> <li>✓ Formation at field implementation level of committees that lead communities to develop bylaws and enforcement mechanisms</li> <li>✓ Capacity-building of CMOs and DLGs in relation to water resources management</li> </ul>

Table 5: The activity plan for Support to Refugee and Host Communities

OUTCOME	MAIN ACTIVITY(S)	Responsible Agency	Deliverable(s)	Detailed Activities
1.2.1 construction and rehabilitation of cost-effective WSS infrastructure investments	Design and construction of large gravity flow schemes	RWSSD	- Ora-Ala gravity flow scheme constructed in refugee hosting areas	<ul style="list-style-type: none"> <li>✓ Engineering designs of system components</li> <li>✓ Procurement of construction and supervision consultancy contracts</li> <li>✓ Procurement of safeguard consultants</li> <li>✓ Procurement of software consultants</li> <li>✓ Training and capacity building of department staff</li> </ul>
	Design and construction of solar powered piped water supply systems	RWSSD	- It is proposed that the solar powered water supply systems will distributed among the districts as follows; Adjumani (3), Arua (2), Lamwo (3), Moyo (3), Yumbe (6), Kiryandongo (3). The actual locations of the 20 solar powered systems shall be confirmed after the feasibility studies.	<ul style="list-style-type: none"> <li>✓ Engineering designs of system components</li> <li>✓ Procurement of construction and supervision consultancy contracts</li> <li>✓ Procurement of safeguard consultants</li> <li>✓ Procurement of software consultants</li> <li>✓ Training and capacity building of department staff</li> </ul>
1.2.2 construction of sanitation and faecal sludge management facilities	Design and construction of sanitation and faecal sludge management facilities	RWSSD	<ul style="list-style-type: none"> <li>- 1 Faecal sludge management facility constructed in Moyo district, since there are other FSMFs to be constructed in Adjumani and Koboko. The Moyo FSMF will support the Moyo and surrounding areas including close refugee settlements</li> <li>- 20 public latrines constructed in Administrative Centres such as Sub Counties and District Headquarters</li> <li>- 50 institutional latrines constructed shall be constructed mainly in schools, and Health Centres</li> </ul>	<ul style="list-style-type: none"> <li>✓ Engineering designs of system components</li> <li>✓ Procurement of construction and supervision consultancy contracts</li> <li>✓ Procurement of safeguard consultants</li> <li>✓ Procurement of software consultants</li> <li>✓ Training and capacity building of department staff</li> </ul>

OUTCOME	MAIN ACTIVITY(S)	Responsible Agency	Deliverable(s)	Detailed Activities
	Environmental and social management related activities, including community mobilization	RWSSD	<ul style="list-style-type: none"> <li>- RAP consultants Procured</li> <li>- RAPs and ESMPs Prepared</li> <li>- RAPs and ESMPs Approved</li> <li>- Compensations and resettlements done</li> <li>- Community mobilisation and sensitisation done</li> <li>- Hygiene and sanitation campaigns done</li> </ul>	<ul style="list-style-type: none"> <li>✓ Procurement of RAP consultants</li> <li>✓ Preparation of RAPs and ESMPs</li> <li>✓ Approval of RAPs and ESMPs by the Chief Government Valuer</li> <li>✓ Carrying out compensations and resettlements</li> <li>✓ Community mobilisation and sensitisation</li> <li>✓ Hygiene and sanitation promotions and campaigns</li> </ul>
1.2.3 Management and Restoration of Micro-Catchments	Water source protection and catchment management activities	DWRM	<ul style="list-style-type: none"> <li>- Stakeholder driven micro-catchment management and source protection plans developed and adopted</li> <li>- Physical and natural water infrastructure constructed or renovated</li> </ul>	<ul style="list-style-type: none"> <li>✓ Community-driven development of micro-catchment management and source protection plans.</li> <li>✓ Development of effective community agreements/bylaws on natural resources management</li> <li>✓ Development and application of a stakeholder driven monitoring system for preparation and implementation of micro-catchment management plans</li> <li>✓ Development of guidelines for authorities, communities and other stakeholders for implementation of water related catchment interventions</li> <li>✓ Formation at field implementation level of committees that lead communities to develop bylaws and enforcement mechanisms</li> <li>✓ Capacity-building of CMOs and DLGs in relation to water resources management</li> </ul> <p>Implementation of the interventions planned under Output 1, such as reforestation activities, construction of multipurpose dams, or construction of Retention structures in the open landscape, on-farm and off-farm, wetland rehabilitation</p>

**Table 6: Risks to UWSSD project component and mitigation measures**

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
<b>Budget shortfall and funding constraints</b>			
Unrealistic scope with a small financial envelope	low	High	Ensure realistic scope and ensuring that scope can be divided and implemented in phases depending on the budget availability.
<b>Difficulties in Acquiring Land for Civil Infrastructure</b>			
Land will be required for reservoirs, water treatment plant, FSTPs and access to sites as well for pipe laying.	low	High	Land acquisition process will be done ahead of implementation including development of RAP and continuous community engagement.
<b>Lack of Experience in Implementation of Social and Environmental Safeguards in the Department</b>			
The RWSSD staff have limited experience in implementation of World Bank projects and this may delay or even lead to cancellation of certain projects due to poor implementation of safeguards	Medium	Medium	There is need for training and capacity building of staff in aspects of social and environmental safeguards implementation
<b>Unrealistic contract duration</b>			
Many infrastructure projects allocated unrealistic project duration leading to unfinished projects.	high	High	From experience from WMDP, projects will be given realistic time frames with a minimum of 4 months for mobilisation.
<b>Problems of Compensation and Resettlements</b>			
Delays in communities receiving their compensation due to the process may cause them to become increasingly aggressive to public projects and are likely to cause delays.	low	High	Proper scheduling of RAP implementation; continuous community engagement; concerted effort involving local governments; deployment of client staff in each project area to fast-track issues of compensation and resettlement.
<b>Delays in Construction</b>			
Delays in project implementation due to approvals for critical project milestones will impact on the construction time frame, and subsequently the costs.	Medium	High	The IA and Contract management should keenly adhere to the agreed implementation schedule. There should be routine tracking and monitoring of all stages of construction to course correct in case of deviations early enough.
<b>Procurement delays</b>			
Procurement processes are long and a series of decision centres will delay project implementation	High	High	Project procurement should start at least 6 months before implementation starts
<b>Increase in project Costs</b>			
Increase in construction costs due to rising costs of essential commodities on world market, local inflation and volatile financial market	med	High	From previous trends, such occurrences are anticipated and the engineering estimates shall take this into consideration. Secondly, the IAs shall strive to ensure that the project implementation is expedited to minimise time related costs.



**Table 7: The activity plan for Small Towns -UWSSD**

OUTCOME	MAIN ACTIVITY	RESPONSIBLE AGENCY	DELIVERABLE (S)	DETAILED ACTIVITIES
1.1.1 constructing and rehabilitating WSS facilities, as well as providing associated services, including engineering, environmental and social studies, and supervision of construction activities;	Design and construction of water supply systems	UWSSD	Water supply and sanitation systems constructed in; <ul style="list-style-type: none"> <li>- Namasale,</li> <li>- Busia,</li> <li>- Tirinyi-Kibuku-Budaka-Kadama-Butaleja-Busolwe,</li> <li>- Namungalwe-Kaliro,</li> <li>- Kyegegwa-Mpara-Ruyonza,</li> </ul>	<ul style="list-style-type: none"> <li>- Procure consultants to carry out design review and construction supervision.</li> <li>- Procure contractors to carry out construction of Water Supply, sanitation systems and source protection measures.</li> <li>- Supervise construction of water supply, sanitation and source protection measures.</li> <li>- Supervise consultants carrying out ESIA &amp; RAP.</li> <li>- Ensure active involvement of stakeholders in the implementation of agreed investments</li> <li>- Prepare regular progress reports on the implementation of the activities</li> <li>- Procurement of safeguard consultants</li> <li>- Training and capacity building of department staff</li> </ul>
	Design and construction of FSTPS	UWSSD	FSTPs constructed in; <ul style="list-style-type: none"> <li>- Busia,</li> <li>- Ngora,</li> <li>- Koboko,</li> <li>- Rukungiri</li> </ul>	<ul style="list-style-type: none"> <li>- Procure consultants to carry out construction supervision.</li> <li>- Procure contractors to carry out construction of FSTPs,.</li> <li>- Supervise construction of FSTPs.</li> <li>- Supervise consultants carrying out ESIA &amp; RAP.</li> <li>- Ensure active involvement of stakeholders in the implementation of agreed investments</li> <li>- Prepare regular progress reports on the implementation of the activities</li> <li>- Procurement of safeguard consultants</li> <li>- Training and capacity building of department staff</li> </ul>

OUTCOME	MAIN ACTIVITY	RESPONSIBLE AGENCY	DELIVERABLE (S)	DETAILED ACTIVITIES
	Environmental and social management related activities, including community mobilization and sensitization, and hygiene and sanitation activities	UWSSD	<ul style="list-style-type: none"> <li>- RAP consultants Procured</li> <li>- RAPs and ESMPs Prepared</li> <li>- RAPs and ESMPs Approved</li> <li>- Compensations and resettlements done</li> <li>- Community mobilisation and sensitisation done</li> <li>- Hygiene and sanitation campaigns done</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement of RAP consultants</li> <li>- Preparation of RAPs and ESMPs</li> <li>- Approval of RAPs and ESMPs by the Chief Government Valuer</li> <li>- Monitor ESMP</li> <li>- Ensure involvement of communities</li> <li>- Implementation of the RAP</li> <li>- Carrying out compensations and resettlements</li> <li>- Community mobilisation and sensitisation</li> <li>- Hygiene and sanitation promotions and campaigns</li> </ul>
strengthening the capacity of UWA in the areas of operational and financial management, including the establishment of a remote monitoring system for rural water systems; and RGCs	Procure goods (pipes & fittings, consumer meters & bulk meters) to carry out extensions	UWSSD	<ul style="list-style-type: none"> <li>- pipes &amp; fittings, consumer meters &amp; bulk meters procured</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Procure suppliers to deliver goods</li> <li>- Supply goods to the respective Umbrella Authorities</li> </ul>
	Professionalization of UA	UWSSD	<ul style="list-style-type: none"> <li>- Consultant hired to support the UAs to become professional</li> </ul>	<ul style="list-style-type: none"> <li>- Procure consultant to carry out consultancy services</li> </ul>

## 3.2.2 Component 2: Water Supply and Sanitation under NWSC

### 3.2.2.7 *Subcomponent 2.1: Water Supply and Sanitation under NWSC (US 90 Million)*

This project component will be implemented under the NWSC and address infrastructure needs in the towns of Adjumani, Gulu and Mbale.

### 3.2.2.8 *Overview*

The priority towns selected are Adjumani-Pakele, Gulu and Mbale.

Adjumani district is a host to a number of refugee settlements in Northern Uganda. Most of these refugees fled conflict in South Sudan, which has experienced political instability for over three decades, and escalated in the last three years. Various humanitarian organisations managing refugees have headquarters in Adjumani and Pakele town councils. This has spurred sustained economic and population growth in the areas. As part of indicators for population and economic growth in the area, Pakele town board has been gazetted a town council in September 2017. Unreliable water supply service currently experienced in the area is one of the stumbling blocks to development and service delivery to the population including refugees and host communities. There is therefore need to improve the water supply situation to facilitate the expected developments in the area.

Gulu, the economic capital of the Northern region has an average population growth of 3.2 percent per year. Gulu town is susceptible to dry spells and has experienced severe water shortages. The critical water supply situation is the result of two decades without infrastructure investments as a result of the civil unrest. It (Gulu town) is one of the towns currently being funded under the WMDP. However due to limited budget, some infrastructure needs could not be implemented under the current project. These are therefore to be implemented under the IWMDP.

Mbale is dubbed the business hub of eastern Uganda as its proximity to Kenya allows for easier trade. Economic opportunity in the town has spurred migration, which in turn has triggered rapid population growth and the development of new settlements that are stretching the capacity of current service providers (town councils and National Water Service Corporation). Mbale town was among the four towns selected for funding under WMDP. A feasibility study was done, and design reports prepared. However due to limited budget, the works tender was not advertised.

The Corporation, therefore, plans to rehabilitate, develop and expand the water supply and sanitation infrastructure in the towns of Adjumani, Gulu, and Mbale. The main constraints relating to the current water supply and sanitation in the three towns are:

1. The raw water resources in all three towns are diminishing. This is caused by recent and prolonged droughts and catchment mismanagement, such as encroachment of settlers and farmers into as 'protected' gazetted areas.
2. The water transmission and distribution systems in the three towns are old, of insufficient conveyance capacity and subject to frequent operational failures. As a result, many parts of the three towns have only intermittent water supply or no water at all.

3. The current water abstraction sources for all three towns have become insufficient for the demand. The quality of the raw water source for Mbale has deteriorated to a stage where water quality related operational problems have become economically unsustainable. Adjumani district is one of the host communities for refugees mainly from South Sudan.
4. Sewer network coverage in Mbale town is low and the existing systems, including treatment, are old and prone to operational problems.
5. Carry out full scale water source and catchment protection activities in Bushenyi, Mbale, Gulu and Arua.

Substantial financial investment is needed to address the shortfalls in the water and sanitation sector in the three towns. The scale of the financial investment required is such that NWSC cannot shoulder it with its own resources and financial assistance is hence required.

### *3.2.2.9 Objectives*

The specific objectives of the sub-component are to:

1. Ensure adequate water provision in each of the towns by addressing the growing water supply challenges, through development of new infrastructure as well as rehabilitation and expansion of existing systems.
2. Improve the health and living standards of the target population, including vulnerable and disadvantaged groups, such as the urban poor, through improved access to clean water and sanitation, as well as health education and communal training on the importance of safe water supply and sanitation.
3. Contribute to environmental protection and sustainability of water sources and their catchments through the adoption, promotion, and implementation of efficient protection strategies and management methods.
4. Ensure sustainability of water supply and sanitation services in the targeted towns through establishment of efficient and effective institutional support systems.

### *3.2.2.10 Key activities*

This sub-component will aim to construct new, as well as improve and expand existing water supply infrastructure and sanitation in the towns.

The existing detailed design for Mbale will undergo a design review prior to announcement of the works tender, preparation of the detailed designs for Gulu are on-going while preparatory studies (leading up to a detailed design) for Adjumani will commence in March 2019. The designed infrastructure improvements will be put in place after successful works tendering for the respective towns.

NWSC has embraced the importance of source protection, since many of its water sources are currently being threatened by human encroachment and changes in flow regimes. Already, source protection measures for Gulu and Mbale have been identified. For Adjumani town, studies for the identification of appropriate source protection measures will commence in June 2019. Source protection measures for the three towns are to be implemented under IWMDP.

Based on the available previous studies, the identified critical interventions and activities in NWSC towns are summarized in below Table:

**Table 8: Key activities in NWSC Towns**

No.	Town	Proposed Key Activities
1	Adjumani	<ul style="list-style-type: none"> <li>• A sustainable raw water source/s comprising both ground water and surface water sources.</li> <li>• Automated water treatment system</li> <li>• Bulk transfer of treated water to a suitably located reservoir and distribute by gravity to the entire project area.</li> <li>• Water supply for the urban poor</li> <li>• Sanitation facilities at selected public areas and operationalisation of the faecal sludge treatment system</li> <li>• Catchment management measures</li> </ul>
2	Gulu	<ul style="list-style-type: none"> <li>• Construction of a bulk water transmission line from Karuma to Gulu</li> <li>• Water distribution network to supply the small towns of Karuma, Kamdini, Minakulu, Bobi-Palenga, and Koro</li> </ul>
3	Mbale	<ul style="list-style-type: none"> <li>• Construction of new intake along River Namatala, and transmission main to Bungokho water treatment plant (WTP)</li> <li>• Refurbishment of the Nabijo and Nabiyonga intakes</li> <li>• Refurbishment and upgrading of the current Bungokho WTP</li> <li>• Refurbishment of the Manafwa WTP and intake</li> <li>• Rehabilitation, upgrading and expansion of the water supply and distribution system in Mbale town and neighbouring areas including construction of new reservoirs</li> <li>• Rehabilitation of the existing sewerage system, construction of new sewerage system, and extension of the sewer network in Mbale town</li> <li>• Bulk water transfer from Mbale water network to the small towns of Butaleja, Busolwe, Kadama, Tirinyi, Kibuku and Budaka</li> <li>• Construction of public toilets and ablution blocks in the informal settlements of Mbale town and the small towns</li> <li>• Catchment management measures for protecting the water sources</li> </ul>
4	Arua	Catchment management measures for protecting the water sources
5	Bushenyi	Catchment management measures for protecting the water sources

### 3.2.2.11 Expected large towns outputs

**Table 9: Expected large town outputs**

Project Development Objective	Outputs	Indicators
To ensure adequate water provision in each of the towns by addressing the growing water supply challenges through development of new infrastructure, as well as the rehabilitation and expansion of existing systems.	<ul style="list-style-type: none"> <li>• New/alternative water sources for Adjumani and Mbale and their respective transmission mains developed</li> <li>• Current water treatment works and systems in the towns of Adjumani and Mbale refurbished and upgraded</li> <li>• Bulk water transmission from Mbale water supply system to the Budaka, Butaleja, Busolwe, Kibuku, Tirinyi and Kadama towns installed</li> <li>• Bulk water transmission from Karuma en-route Gulu, and supplying small towns of Karuma, Kamdini, Minakulu, Bobi-Palenga, and Koro installed</li> <li>• Current water supply and distribution system in the towns of Adjumani and Mbale supply areas rehabilitated, upgraded and expanded.</li> <li>• Source protection measures in Adjumani, Gulu and Mbale</li> </ul>	<ul style="list-style-type: none"> <li>• Accessible capacity in the towns of Adjumani, Gulu and Mbale increased to address current gaps.</li> <li>• Additional water sources for Adjumani, and Mbale developed.</li> <li>• Long Term abstraction needs for the towns of Adjumani, and Mbale secured.</li> <li>• Number of new water connections in the towns of Adjumani, Gulu and Mbale allows meeting of the SDG for access to clean water (85% of population).</li> <li>• Quality of water in the towns of Adjumani and Mbale meeting the National standards.</li> </ul>
To improve the health and living standards of the target population, including vulnerable and disadvantaged groups, through improved sanitation, health education and communal training on the importance of safe water supply and sanitation.	<ul style="list-style-type: none"> <li>• Existing sewer systems in the towns of Mbale rehabilitated, upgraded, and extended to increase coverage.</li> <li>• Existing wastewater treatment facilities in the towns of Mbale rehabilitated and upgraded to improve treatment efficiency.</li> <li>• New sewer system and waste stabilisation ponds constructed in Mbale town</li> <li>• Sanitation facilities for the urban poor in Mbale town developed</li> <li>• Sanitation facilities in Butaleja, Busolwe, Kadama and Budaka developed</li> </ul>	<ul style="list-style-type: none"> <li>• The core areas of Mbale are fully sewered and a minimum of 60% of properties in the sewered areas are connected.</li> <li>• Quality of sewage effluent leaving the treatment facilities in the Mbale meeting the national discharge standards</li> </ul>
To contribute to environmental protection and sustainability of water sources and their catchments through the adoption, promotion, and implementation of effective management and protection strategies of water	<ul style="list-style-type: none"> <li>• Coordination mechanisms between NWSC and respective environment management institutions strengthened through the formulation of local environment committees in each of the towns.</li> <li>• Assessment of the current status, extent of degradation, and identification of hot spots in the catchment of the water source of each town undertaken.</li> </ul>	<ul style="list-style-type: none"> <li>• Quality of sewage effluent leaving the treatment facilities in Mbale town meeting the national discharge standards</li> <li>• Local environment committees in the towns of</li> </ul>

Project Development Objective	Outputs	Indicators
resources and their catchments.	<ul style="list-style-type: none"> <li>• In cooperation with the relevant authorities, continuous monitoring of wetland usage with the aim of fostering enforcement of wetland and environmental protection policies, laws and regulations.</li> <li>• Existing wastewater treatment facilities in Mbale town rehabilitated and upgraded to ensure compliance of the final effluents with the national standards.</li> <li>• New wastewater treatment systems constructed in Mbale, with design parameters tailored to ensure that the final discharges are compliant with national standards.</li> <li>• Relevant recommendations in the ESIA studies implemented</li> </ul>	<ul style="list-style-type: none"> <li>• Adjumani, Gulu, and Mbale established and functioning.</li> <li>• Current status of water abstraction catchments assessed and documented.</li> <li>• Water abstraction catchment monitoring programme developed and followed.</li> <li>• NWSC actively contributes to the monitoring of wetlands usage and liaises and reports to the relevant authorities through the environment committees.</li> </ul>
To ensure sustainability of water supply and sanitation services in the targeted towns through establishment of efficient and effective institutional support systems.	<p>Equipment and Computer software necessary for operation and maintenance of the service structures procured.</p> <p>Staff trained in operation and maintenance including the use of equipment and software.</p> <p>Where applicable, land titles and demarcations for the new premises secured.</p> <p>In line with the NWSC PACE contract framework and prior to commissioning, business plans for the management and operation of the water supply and sewerage systems in each of the towns updated.</p> <p>Existing local water councils in each of the towns strengthened and supported to improve their efficiency and coordination mechanisms.</p>	<p>Asset management system in place and fully functional.</p> <p>NWSC conversant with and supporting O&amp;M requirements of infrastructure</p> <p>Updated business Plans for the management and operation of the water supply and sewerage systems in each of the towns in place and fully operational.</p> <p>Local water councils in each of the towns carrying out their duties efficiently and effectively.</p>

### 3.2.2.12 Institutional and implementation arrangements

Sub-component 2.1 will be implemented by NWSC, in coordination with MWE. NWSC has a Planning and Capital Development Division, which is in charge of planning and executing all infrastructure development projects in the corporation. For each of the sub-projects proposed, NWSC will nominate a dedicated Project Implementation Team (PIT) made up of the appropriate mix of skills. The PIT will be responsible for direct project implementation and coordination with other sector players and stakeholders. The execution of the works will be directly supervised by the respective supervision consultants who, in turn, will be supervised by the PIT. The implementation arrangements are detailed in Chapter 4. Implementation arrangements for monitoring and evaluation are detailed in Chapter 9.

The various project towns will be tendered out separately for effective control and quality assurance. The strategy is to fast track improvement measures aimed at increasing water production to bridge the current supply gaps.

### 3.2.2.13 Risks and mitigation measures

The key risks to the sub-component are outlined below, along with mitigation measures.

**Table 12: Risks to NWSC implemented project component and mitigation measures**

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
Budget shortfall and funding constraints			
Unrealistic scope with a small financial envelope	low	high	Necessary care shall be taken to ensure that the project scope for works is as realistic as possible according to the available budget
Skills			
Lack of in-house skills at initial stages	low	high	Project Implementation Unit shall be designed early so that staffing gaps are identified and recruitment plans prepared in time
Loss of key staff	low	high	A plan shall be designed to identify suitable staff within the Organisation staff pool that can be drawn to fill the gap in immediate terms and embark on replacement
Increase in project Costs			
Increase in construction costs due to rising costs of essential commodities on world market, local inflation and volatile financial market	med	high	From previous trends, such occurrences are anticipated and the engineering estimates shall take this into consideration. Secondly, the implementing agencies shall strive to ensure that the project implementation is expedited to minimise time related costs.
Difficulties in Acquiring Land for Project Sites			
Land is required for reservoir sites, etc. and delayed acquisition will delay the project.	low	high	The implementing agency will expedite all necessary land acquisition processes, and at involve the local authorities according to the RAP.
Delays in Project Implementation			
Delays in effecting disbursements and getting approvals for critical project milestones will impact on the project implementation time frame, and subsequently the costs.	low	high	The personnel charged with the implementation of this project both at the Bank and Implementing Agencies shall therefore be expected to act in a professional manner, bearing in mind the implications of delayed decisions
Consistency of Development Partners Priorities			
Donor priorities will be predictable, consistent and in harmony with trends in the GoU and development partners co-operation strategy.	low	high	Collaboration, positive engagement, and appreciation of the need to focus on the broader objectives of meeting sector targets against the real financing gap faced by Urban Water and Sanitation sub-sector development programmes.



### 3.2.3 Component 3: Water Resources Management

#### 3.2.3.7 *Component Overview*

In line with the project development objective of improved capacity for integrated water resources management and the operational performance of service providers in Project areas, this component focuses on the implementation of the catchment management approach to IWRM and improvement of water resources monitoring and information systems across the country, as well as implementation of priority catchment management measures.

Specifically, the component will support: (i) undertaking catchment management measures, including soil and water conservation, flood mitigation, riverbank protection and restoration; (ii) providing alternative livelihoods for affected communities. (iii) preparing a water resources strategy for the Albert Water Management Zone<sup>4</sup>; (iv) preparing catchment management plans for Priority Hotspot Sub-Catchments; (v) undertaking a national groundwater management study; the rehabilitation of the National Water Quality Reference Laboratory. And (vi) strengthening water resource monitoring and information systems, including (A) rolling out of the Water Information System at the Water Management Zone level; (B) the installation of hydrologic monitoring systems; and (C) This component will be implemented through 3 sub components namely;

- a) Catchment based planning and implementation,
- b) Water Information Management
- c) Institutional Support

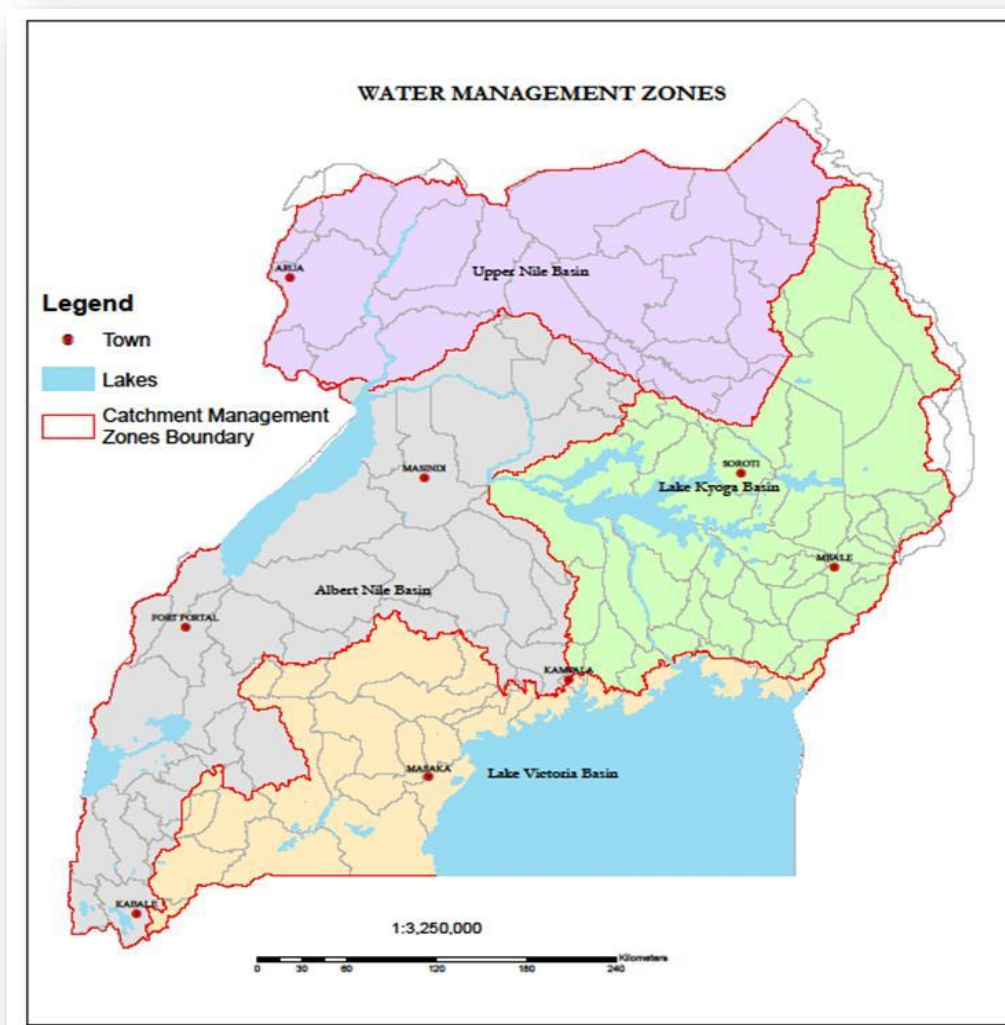
#### 3.2.3.8 *Catchment Based Planning and Implementation*

The MWE, through its Directorate of Water Resources Management (DWRM) is implementing a series of major water policy reforms in the country. The reforms include the adoption of the principles of IWRM, operationalized through a participatory catchment-based approach to water resources management and investment planning. In keeping with the broader Government policy, implementation of IWRM is being de-concentrated to the zonal and catchment levels.

The key element in the transformation and de-concentration of IWRM in Uganda is the establishment of WMZs as the platform for catchment-based water management and development planning. The country has been divided into four WMZs, with the respective catchments in each zone delineated as shown in Figure 3-1. The Government has undertaken several important actions to support the roll-out process. First, the framework for de-concentration of water resources management was piloted in Rwizi catchment in the Victoria WMZ in order to test the feasibility of the catchment level institutional structures and approaches to stakeholder involvement and capacity building. The subsequent roll-out strategy was based in part on the lessons learned from this exercise. Second, with

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<sup>4</sup> Uganda is divided into four WMZs - the Upper Nile; Kyoga; Albert; and Victoria. The current WMDP has focused mainly on two zones – the Upper Nile and Kyoga WMZs, while the LVEMP II has focused on the Victoria WMZ. The proposed Project will provide support for the Albert WMZ, which lies in the western part of Uganda and is characterized by a high topography as well as a high potential for hydropower generation and water supply through gravity fed systems.



support from JICA, development of a comprehensive water resource knowledge base for the Kyoga WMZ was done as a part of the preparation of a master plan for rural water supply in the Zone.

Figure 1: Map of Uganda showing the WMZs

In addition, the DWRM has prepared a National Water Resources Assessment that is the basis for a National Water Strategy and Action Plan which provide a national level policy framework for work at the WMZ and catchment levels.

The DWRM has de-concentrated to each of the four WMZ by recruiting professional teams. WMZ offices have been built for Kyoga and Upper Nile. In collaboration with various partners – e.g., the Non-Governmental Organisations (NGOs) World Wildlife Fund (WWF) and Protos in the Albert, Lake Victoria and Upper Nile WMZs – these teams have been advancing catchment planning and stakeholder mobilization. The establishment of Catchment Management Organizations (CMOs) – the formal institutional structures for stakeholder participation – is on-going for catchments where catchment management planning is being done and has been completed for catchments where Catchment Management Plans have been developed but additional support is needed in supporting the operations of the formed structures. Furthermore, progress in preparation of catchment

management plans has had good results with CMPs prepared for Mpologoma, Victoria Nile/Lumbuye, Aswa, Awoja and Albert Nile with funding from the World Bank. Additional efforts to sustain and promote the process are needed.

### *3.2.3.9 Overview*

This sub-component will, therefore, support identification, preparation and implementation of selected priority investments through a participatory catchment planning process in two WMZs, Kyoga and Albert. Specifically, the following main activities will be supported: (a) preparation of a WMZ strategy and action plan for the Albert WMZ; (b) development of four (4) catchment management and investment plans in the two WMZs (Kyoga and Albert); (c) establishment of consultation mechanisms via stakeholder CMOs in Kyoga and Albert WMZs, communications and promotion of awareness and (d) implementation of priority investments in catchment management and development measures;

### *3.2.3.10 Objectives*

The main objective of this sub-component is to lay the foundation for long-term sustainable water management and development by supporting a participatory integrated water management and development planning process at the catchment level.

### *3.2.3.11 Key activities*

The activities in this sub-component are detailed below and summarized in Table 3.

Development of a water resources strategy and action plan for the Albert WMZ: This will support the preparation of an overarching and guiding water management and development strategy and action plan for the Albert WMZ. The strategy and action plan will be consistent with the National Water Management and Development Strategy prepared by DWRM.

Development of catchment management and investment plans: This will support the implementation of a participatory integrated water management and development planning process at the catchment level. Through this process, four (4) integrated and participatory water resource catchment plans including two (2) in the Kyoga WMZ and two (2) in the Albert WMZ. The plans will consist of two elements: (i) a number of agreed investments in infrastructure and other interventions ("investments"); and (ii) various water management interventions and actions meant to help resolve conflict, conserve and protect the catchment and its natural resources, as well as ensure equitable access/use of water resources. Investments will be prepared to pre-feasibility level.

Operationalization of CMOs and enabling stakeholder participation: A stakeholder analysis will be used to identify and mobilize key stakeholders, who will participate in the catchment planning process through the establishment of four functional CMOs. CMOs will be established in each of the four "hot spot catchments" for which catchment management plans are being developed. Specifically, for each of the hot spot catchments, the project will support WMZ offices to establish the following entities comprising the CMO:

- Catchment Management Fora (CMFs);
- Catchment Management Committees (CMCs);
- Catchment Technical Committees (CTCs); and
- Secretariats.

Communication and promotion of awareness: This will support the critical communication function of the WMZs in order to foster broad awareness of integrated water resource management and the on-going catchment planning, management and investment process.

Implementation of selected water management measures: This will support the implementation of selected water management measures prioritized in the agreed catchment plans (e.g. dam safety guidelines and regulations, reservoir operation policies, water allocation, regulation of water use and effluent discharges, flood plain management, and water source protection and conservation).

Strengthening water management zones: In addition to the above activities, the project will strengthen capacity at the WMZ level in order to enable proper functioning. This will be handled under component 4.

Implementation will be by a DWRM team operating at both central and WMZ levels and consisting of staff from all DWRM departments. Implementation arrangements are detailed in Chapter 4. Implementation arrangements for monitoring and evaluation are detailed in Chapter 9.

#### *3.2.3.12 Implementation of priority investments identified in the Catchment Management Plans (US\$9M)*

Under this intervention area, integrated development and management of water and related resources will be promoted through implementing investments in catchment management as identified in the catchment management plans that were prepared under WMDP. This will ultimately enhance socio-economic development and poverty reduction efforts and bring direct and immediate benefits including minimizing the likelihood of crop failure, reduction of flooding and hence destruction of infrastructure, reduction of water pollution, increase in water availability and hence reliable water supplies etc.

However, priority in implementation will be given to investments in catchment management in order to leverage available capacities and resources and create synergy among various agencies and stakeholders.

Implementation of priority investments in catchment management in the Catchment Management Plans will be coordinated by the Water Management Zones (WMZs) and Catchment Management Organizations consisting of Stakeholders Forums, Catchment Management Committees, Catchment Technical Committee and Secretariat for each of the catchments. The WMZs and the Catchment Management Organizations will be strengthened to perform their roles of stakeholder collaboration and coordination, and guidance to the implementation of the priority interventions. This will be done through providing a platform to have regular meetings, trainings and providing them with the necessary equipment to facilitate their coordination role. The respective government agencies at both national and local levels will however take lead in implementation of interventions falling within their mandates.

The key outputs of this intervention area are 4 investments in catchment management implemented in 4 catchments of Mpologoma, Awoja, Aswa, and Albert Nile.

The criteria for the selection of the catchments where priority investments will be implemented is;

1. Level of existing and planned water resources infrastructure development projects under WMDP.
2. Frequency of occurrence of floods and droughts and capacity of communities to cope with challenges related to climatic variability and change
3. High sediment loading rates in water courses related to poor land use practices impacting on water quality (high sediment loads)
4. High poverty levels of the sub catchment communities (>60% living below the poverty line) - poverty level of the population stands at 75.8%.

A number of sub and micro-catchment were identified as the most degraded following a participatory hotspots identification exercise by all key stakeholders in the 4 catchments prepared under WMDP 1 and those prepared outside WMDP by DWRM. Generally, the major challenges in the sub-catchments include flash floods, soil erosion, occasional landslides, crop loss, and loss of agricultural land. Most of the micro catchment are also home to water supply schemes that has been facing great seasonal fluctuations in water quantity also poor water quality. The water supply scheme infrastructures have on some occasions been washed away by landslides. The above situations have been attributed to poor land and water management practices, high degradation of the catchment areas and limited livelihood options by the people. Thus, an integrated approach to the management of the catchment has been found to be key in solving these problems and improving people's livelihoods.

Some of the measures proposed in the catchment management plans include interventions that can enable storage of water during the wet seasons and gradually release it during the dry seasons.

The objectives of these interventions in catchment management are to:

- Reduce the extensive runoff hence mitigation of flash floods, landslides and soil erosion.
- Improved groundwater storage resulting in availability of water in the catchment during dry seasons.
- Increase soil moisture hence improved crop productivity.
- Increase the quality and quantity of water in streams feeding the various streams and rivers.
- Improve community livelihood as well as ensuring that gender aspects are considered.

For each sub-catchment detailed stakeholder analyses were done where identification of key stakeholders that have been affected directly and indirectly by the wide range of challenges in the micro catchment was done. This was followed by stakeholder meetings aimed at agreeing on the objectives and goal to be realised as well as action planning. Detailed resource mapping and ranking was done through a participatory approach as well as transect walks in order appreciate the state of the resources and the linkage of the different stakeholders to the resource. As part of implementation of investments in catchment management micro-catchment management committees to spearhead the actual implementation as well as continuous monitoring and supervision will be formed. Identification of priority investments in catchment management in the CMPs was based on the key water resources related issues and these investments largely include soil and water conservation measures such as construction of stone bunds, soil bunds, infiltration pits, gully plugs, terracing of steep slopes, check dams, receiver ponds, gully rehabilitation using sand dams; environment management measures that include tree planting, conservation and demarcation of wetland systems, and restoration of river banks using trees such as bamboo, control of water pollution; and livelihood

improvement activities including restocking of wetlands with fish fingers, natural resources based business such as mat and basket making, growing of fruit trees etc. The work will be done in such a way as to minimize interference with current community livelihoods while giving maximum benefits to the community.

The benefits of these interventions will be reduction of the extensive runoff in micro-catchments and increase in the water table. The measures will lead to increase in soil moisture content which subsequently enhances crop production. The additional benefits include reduced risk of future rain-triggered landslides, and the awareness of mobilized and sensitized community members about good practices in soil and water conservation management measures.

Experiences so far gained from implementing similar activities by DWRM and other partners indicates that community participation in decision making and execution of intervention activities guided by scientific facts is key to successful implementation of activities. In addition, interventions selected must demonstrate immediate results to the beneficiary community for them to have a quick buy-in, and prior design of interventions has proved not to be effective in catchment restoration interventions and therefore a design and build approach is strongly recommended.

The prioritized investments in catchment management will be implemented in the hot spot sub-catchments as prioritized on the various CMPs which have been identified as highly degraded and stressed yet they support many water related development activities. It is proposed to implement projects in 4 sub-catchments, one per catchment. For Mpologoma catchment the work will be done in Lwakhakha sub-catchment. For Aswa catchment the work will be undertaken in Aswa II sub-catchment while for Albert Nile catchment the work will be undertaken in Kochi sub-catchment. For Awoja, the sub-catchment of middle Awoja will be considered. Some of these catchments such as Aswa II, Awoja and Kochi have investments in water supply and sanitation proposed under urban water and rural water supply for implementation under IWMDP that will be supported.

#### *3.2.3.13 Preparation of Catchment Management Plans (US\$5.7m)*

Catchment Management planning is key in promoting integrated planning, development and management of water and related resources. However, the process of preparing catchment management plans and implementing water resources management related infrastructure and interventions identified in the CMPs is a recent development. The Catchment Management Planning guidelines were developed only in 2014 to guide the process of preparing the CMPs and thus there is lack of CMPs for use in integrated and sustainable development of water and related resources. Overall it is proposed that 4 CMPs be prepared (2 for Kyoga WMZ and 2 for Albert WMZ). These catchments are Nyamugasani and Kafu catchments in Albert Water Management Zone and Sezibwa and Okweng catchments in Kyoga Water Management Zone. These catchments are hosts to some water supply and sanitation projects proposed under rural water and urban water supply for consideration under WMDP II and similar projects. Thus, support as well as synergy, integration and collaboration will be enhanced among the different components of IWMDP and also with other related programs. Specifically, Nyamugasani catchment hosts the proposed Nyamugasani gravity flow scheme proposed under rural water supply while Okweng hosts a number of water supply projects proposed under urban water and rural water supply.

Preparation of CMPs will involve extensive stakeholders' engagement and capacity building which will be a key component of this work. Key to the catchment based approach to planning, development and management of water and related resources is the involvement of stakeholders at national, regional/WMZ, catchment, district and local levels. Specifically, Catchment Management Organizations (CMOs) have been created in some catchment to facilitate stakeholder participation in catchment management and development. The CMOs consist of Catchment Stakeholders Forums (CSFs), Catchment Management Committees (CMCs) and Catchment Technical Committees (CTCs). In addition, IWRM approaches are being integrated in district development plans as well as in community level action plans. Considering that the institutional framework for IWRM from the national down to the local level are still new and young, and that the capacity of the various stakeholders at those levels is still low there is need for continued institutional development and capacity building to ensure that catchment based IWRM is adopted during planning and implementation of water and related activities. The institutional strengthening and capacity building will aim at ensuring that the catchment based IWRM framework at various levels is institutionally and financially sustainable.

Considering that reasonable capacity in preparation of CMPs has been built within DWRM both at the central level and WMZ levels, the WMZ staff with support of DWRM staff at central level will spearhead and guide preparation of the CMPs with support of consultants as required especially in terms of stakeholder engagement, packaging of the different priority projects and general preparation of the CMPs and the identified priority projects. This will contribute greatly to sustainability of the catchment based approach to planning and implementation.

The key outputs of this intervention area are four Catchment Management Plans prepared through a stakeholder driven planning process.

#### *3.2.3.14 Preparation of Albert WMZ Water Resources Strategy (US\$1.5m)*

##### **Objectives**

The main objective of this intervention area is to lay the foundation for long-term sustainable water management and development by supporting a participatory integrated water management and development planning process at the catchment level.

##### **Key activities**

The activities in this sub-component are detailed below and summarized in Table 3.

Development of a water resources strategy and action plan for the Albert WMZ: This will support the preparation of an overarching and guiding water management and development strategy and action plan for the Albert WMZ. The strategy and action plan will be consistent with the National Water Management and Development Strategy prepared by DWRM.

#### *3.2.3.15 Institutional development for Integrated Water Resources Management (US\$1.35)*

This intervention area will support the provision of tools and equipment to support operations of Albert, Kyoga and Upper Nile WMZs as elaborated in component 4. Such tools include vehicles, laptops, desktop computers, printers, photocopiers, projectors, cameras and GPS'). These will be procured under component 4.

This intervention consists works; Construction of the National Water Quality Reference Laboratory in Entebbe and Consultancy services for supervision of the construction of the Laboratory

### 3.2.3.16 Risks and mitigation measures

Key risks to the sub-component are outlined below, along with mitigation measures.

**Table 10: Risks to DWRM implemented project sub component 3.1 and mitigation measures**

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
Budget shortfall and funding constraints			
Unrealistic scope with a small financial envelope	Low	High	Necessary care should be taken to ensure that the scope of the investment projects at the design stage is as realistic as possible according to the available budget
Delays in implementing infrastructural investment			
Delayed implementation of infrastructural investments due to land tenure issues and lengthy procurement processes.	Low	High	The implementing agency will expedite all necessary land acquisition processes, prepare project designs early enough, and involve the local authorities accordingly. Alternative sites will be identified simultaneously.
Long learning curve for implementation of catchment based water resources planning due to lack of prior experience among the WMZ staff	Medium	Medium	Guidelines for catchment planning and water source protection have been developed (see Annex 3). These will be used to shorten the learning curve and avoid “re-inventing the wheel”. Capacity building initiatives are embedded in the consultancy contracts.
slow consultative process of participatory catchment planning might delay implementation of infrastructure investments in WMZs	Low	High	Adequate stakeholder analysis and mapping shall be undertaken to identify relevant stakeholders who shall be brought on board at inception (rather than in the course of the planning process) to avoid dragging the process.
Delays in funds disbursement			
Delays in effecting disbursements and getting approvals for critical project milestones will impact on the sub component implementation time frame.	Low	High	Activities on a critic path will be flagged in the quarterly progress reports and will be fast tracked in the following quarter.
Loss of support for Catchment based Water Resources Management			
Loss of enthusiasm for operationalization of catchment based water resources management due to limited political and technical support	Low	High	Political leadership at all levels will be engaged right at the beginning of the catchment planning exercise to ensure by-in and continued support



3.2.3.17 Activity Plan

**Table 11: The activity plan for sub-component 3.2: Catchment Based Planning and Implementation**

OUTCOME	MAIN ACTIVITY(S)	Responsible Agency	Deliverable(s)	Detailed Activities	
3.2.1 Implementation of priority management measures from agreed catchment management plans	Implement priority catchment management measures	WMZ	implemented management measures in 4 priority sub catchments	Procure non-consultancy services to support the implementation of sub catchment measures	
				Implement the measures including monitoring and evaluation	
3.2.2 Water resources strategy and action plan for Albert WMZ	Development of a water resources strategy and action plan for Albert WMZ	WRRP	1 WMZ Strategy and Action Plan	Procure consultancy services to develop WMZ Strategy and Action Plans	
				Conduct the consultancy including coordination and supervision	
				Conduct zonal technical, consultative meetings/ workshops for inputs, ownership	
				Undertake adoption and approval processes through WMZ structures	
3.2.3 Investment planning in 4 catchments (2 in Albert and 2 in Kyoga WMZs)	Development of 4 detailed Catchment Management and Investment Plans	WRRP	4 Catchment Management and Investment Plans	Procure consultancy services to develop Catchment Management and Investment Plans	
				Conduct the consultancy including coordination and supervision	
				Conduct technical, consultative meetings/ workshops for inputs, ownership	
	Operationalization of CMOs	Office of Director - WRM/ WMZs			Undertake adoption and approval processes through CMO structures
					Procure consultant to undertake stakeholder analysis and mobilization
					Conduct stakeholder analysis and mobilization
					Establish/ constitute membership of all the CMO structures including CMC, CMF, CTCs, CMOs Secretariats

OUTCOME	MAIN ACTIVITY(S)	Responsible Agency	Deliverable(s)	Detailed Activities
				<p>Support coordination of activities and regular meetings of CMOs</p> <p>Conduct capacity building of members of CMO structures</p> <p>Capacity building initiatives are embedded in the consultancy contracts</p> <p>Capacity building of CMOs</p> <p>Stakeholders awareness arising</p> <p>Production and dissemination of CMPs to stakeholders</p>
3.2.4 Institutional development for Integrated Water Resources Management	Rehabilitation of National Water Quality Laboratory	DWRM	Constructed National Water Quality Laboratory	<p>Procure consultancy services for supervision of construction of NWQRL</p> <p>Procure Civil works for the construction of NWQRL</p>

### 3.2.4 Water Information Management (US\$2.5m)

#### 3.2.4.1 Introduction

To support de-concentrated catchment based planning and water management and build the necessary capacity, there is a need to enhance the water resources monitoring and information system of the country, including the functionality and coverage of the hydro-meteorological network, and the establishment of effective systems for information management, analysis, dissemination and use. Such a Water (Resources) Information management System (WIS) in the context of rational water resources management, planning and development in Uganda needs to cover all four water management zones and their respective catchments and aquifers.

#### 3.2.4.2 Objectives

The main objective of this sub component is to enhance the water resources monitoring and information system of the country.

#### 3.2.4.3 Key activities

The activities for this sub component are detailed below and summarized in Table 11.

Establishment of a network for hydro-meteorological, surface, groundwater monitoring: This includes establishing 17 monitoring stations (5 surface water, 5 groundwater and 2 climate, 5 atmospheric deposition)

#### **Operationalisation of the WIS at WMZ level**

Implementation of a Water information management system with modelling and information dissemination capability and a decision support system at the national level and in each of the WMZs: This will involve establishing a functional WIS in each of the WMZs that is aligned with and supported by the national system. Under this intervention area, there will be full scale operationalization of the WIS at national level and in all the 4 WMZs. All the key components of the WIS will be fully operational namely Hydrological Information System (HIS), Spatial Data System, Information Management System (IMS), Hydrologic Design Aids (HDAs); Knowledge Management System (KMS), Decision Support System (DSS) and external models; and a Data Dissemination System (DDS). The key output will be an operational WIS in the 4 WMZs and at the national level.

The operationalization of the WIS will ease real time data collection and reporting by different sector entities and interventions, ensure efficiency in information sharing by integrating the operations of different existing databases e.g. the Urban Water Supply Information System. Establishment of the system shall also ease monitoring of progress by top management thus ensuring transparency in operations both at national and regional levels by WMZs and Facilities. It is also anticipated that donors will have access to the system thus promoting accountability for results and resource utilization. The system will provide field data at required intensity and frequency and time-effective transmission; spatial GIS datasets; data from bathymetric and environmental surveys; socio-economic data collected in regular census and in special surveys; software for processing; tools for analysis and modelling; and facilitate capacity building and institutional strengthening.

The WIS will include raw, validated and processed HIS data and primary and secondary data (including policy, regulation and compliance data) from MWE and other stakeholders; information and

knowledge management tools; and a data archival and dissemination system that will support IWRM at catchment, WMZ and national levels. Once the WIS is fully established, the WMZ offices and catchment management offices would be the primary users, as water resources management is being de-centralized across Uganda.

A first phase of implementation was completed under WMDP. This include priority network upgrading, improved data acquisition from existing SW/GW/Met network stations, real-time telemetry from proposed new stations, upgrading existing databases and migration to unified WIS, unified data visualization platform for WIS data, and web-enabled data access and visualization.

### 3.2.5 Improvement of water resources monitoring (US\$ 1.736m)

This intervention area will support implementation of additional monitoring stations and equipment (surface water, groundwater, water quality and climate) to be established in the Albert WMZ. Real time monitoring through use of on-line remote sensing equipment will be given priority in order to improve on the quality and timeliness of data collection for feeding into the WIS.

### 3.2.6 Assessing and managing the use of groundwater (US\$2m)

Groundwater development in Uganda has been on-going since the 1930s mainly for rural water supply through deep boreholes and springs. There has however been an increase in intensive groundwater abstraction mainly for town water supply since early 1990s due to the need to have piped water supply systems that can easily be operated and managed by the users.

Groundwater is widely distributed and generally of potable quality and is a common low-cost alternative to surface water for rural and urban water supplies. This therefore makes investment and operational costs of groundwater-based systems much lower than those of surface-water based systems. Boreholes with yields greater than 5 m<sup>3</sup>/hour are thus normally considered for installation with motorized pumps for piped water supply. The recent drilling of high-yield boreholes (> 20m<sup>3</sup>/hour) for town water supply has been made in former river channels in various parts of Uganda but their potential are yet to be fully assessed. Groundwater development is also being considered for small scale irrigation and other uses, as an adaptation measure to climate change, in situations where surface water sources are not available at a reasonable cost.

Despite growing dependency upon groundwater for water supplies concerns remain over the sustainability of these supplies not only in terms of the magnitude of abstraction but also its quality. The problems associated with major and excessive groundwater development are, for the moment, very localized, and priority must be set on more effective planning and sustainable implementation of groundwater development to help meet critical social welfare targets and livelihood opportunities. Managed groundwater development, to meet a variety of demands, will be vital in the overall future development process. A quantitative understanding of the relationship not only between climate and groundwater but also the impact of abstraction is therefore needed. Specifically, there is need to assess availability of groundwater and its vulnerability to human and climatic impacts.

This improved understanding is more than ever important considering that many towns and rural growth centres under WMDP are targeting utilization of groundwater and that a new aspect of solar powered groundwater pumping has been included in WMDP II. Due to heavy groundwater development there will be a need to put in place groundwater development and management

strategies to regulate and control groundwater development and activities that might compromise groundwater availability and quality. It will also be necessary to address increasing competition and conflict between groundwater users and to control the increasing threat of groundwater pollution.

As part of this work the available groundwater resources will be quantified and its quality assessed in various geological environments and climate scenarios especially those targeted for groundwater development under WMDP I and II. This work will therefore be done in very close collaboration with the other components of WMDP that are prioritizing groundwater development so that they are adequately guided on potential as well as sustainability of groundwater development, the spacing of production boreholes as well as the pumping regimes. The outputs of the work will be guidelines on aquifer utilization for sustainable groundwater development for various uses in the country. This will be accompanied by the relevant reports and maps showing aquifer characteristics, distribution and responses to pumping. To realize these objectives a number of assessment techniques will be employed to ensure that good quality results are obtained.

Previous groundwater mapping efforts were limited to production of maps showing the distribution of various groundwater parameters as assessed using borehole data. The activities did not involve quantification of groundwater resources in various geological environments and assessing their potential for intensive groundwater development in view of human and climate impacts. The information generated under this activity will be fed into the Water Information System for use in future groundwater development planning and implementation.

#### *3.2.6.1 Institutional and implementation arrangements*

Sub-component 3.2 will be implemented by a DWRM team operating at both central and WMZ levels. Implementation arrangements are detailed in Chapter 4. Nonetheless, roles of WMZs, CMOs and CMCs are highlighted below;

##### **Roles of WMZs in Project Implementation**

- i. Zonal WR data collection, storage and transmission to DWRM,
- ii. Zonal WR mapping, assessment and planning Regional Water Quality,
- iii. Compliance monitoring,
- iv. Technical assistance and facilitation to relevant stakeholders
- v. Contribute to national planning and coordination.

##### **Roles of Catchment Management Organizations:**

- i. Coordinate activities of the stakeholders involved in the use and management of water and related resources;
- ii. Arbitrate internal conflicts between or among CMO members relating to their function;
- iii. Support the process to develop the Catchment Management Plan, review and approve the CMP;
- iv. Suggest indicators against which success of the CMP will be judged;
- v. Mobilize resources to support activities of the CMO and the implementation of the CMP;
- vi. Monitor progress of CMP implementation;
- vii. Inform districts and other stakeholders of the existence of CMP and
- viii. Link the CMP to the district development plans.

**The roles/ functions of the CMC are to:**

- i. Spearhead the development, implementation and review of a Catchment Management Plan on behalf of stakeholders in the catchment.
- ii. Represent all stakeholders in decision making at each step of the catchment planning and implementation process.
- iii. Approve the catchment management plan and through the WMZ present it for endorsement by the minister in charge of water resources
- iv. Present the catchment management plan to catchment stakeholders for their awareness and concurrence.
- v. Mobilize funds for the implementation of catchment management interventions as well as support to the CMO operations.
- vi. Provide strategic guidance and coordination support to catchment stakeholders on the implementation of the catchment management plan.
- vii. Report to the CSF on the progress of the implementation of the CMP, developments in the catchment and general operation of the CMO.
- viii. Inform and support the WMZ on issues related to the regulation of the use and management of water and related resources in the catchment.
- ix. Resolve conflicts between and among CMO members on matters related to the functioning of the CMO
- x. Coordinate the implementation and monitoring of relevant Acts, by-laws, guidelines, regulations, plans and standards.
- xi. Inform the Water Management Zone Advisory Committee on any issues related to the functioning of Water Management Zones.
- xii. Oversee the management of financial resources for catchment related activities in the catchment
- xiii. Appoint, in consultation with the WMZ, and dismiss staff and other paid employees to run the CMO's activities where necessary.
- xiv. Recommend procuring of professional services as and when the need arises.
- xv. Perform other functions which the CSF determines are relevant to the implementation of coordinated management of water and other related resources in the catchment.

### 3.2.6.2 Risks and mitigation measures

Risks to the sub-component are outlined below, along with mitigation measures.

**Table 12: Risks to DWRM implemented project component 3.3 and mitigation measures.**

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
Run down of Hydro-meteorological infrastructure			
Lack of operation and maintenance funds for the hydro-meteorology stations leading to rundown of the monitoring infrastructure and reduced functionality by close of project.	Low	High	Adequate funding shall be provided and ring fenced from the counterpart funding for purposes of operating and maintaining the hydro-meteorological network.
Skills			
Loss of key staff	Low	Medium	A strategy shall be developed where by more than one staff will be knowledgeable in the execution of the sub component activities.
Difficulties in Acquiring Land for Construction of Monitoring Stations			
Land is required for construction of monitoring stations, etc. and delayed acquisition will slow project implementation.	Low	High	The implementing agency will expedite all necessary land acquisition processes, and involve the local authorities accordingly. Alternative sites will be identified simultaneously.
Delays in funds disbursement			
Delays in effecting disbursements and getting approvals for critical project milestones will impact on the sub component implementation time frame.	Low	High	Activities on a critic path will be flagged in the quarterly progress reports and will be fast tracked in the following quarter.
Vandalism of monitoring stations.			
Monitoring stations are often vandalized by local communities in search of hidden treasures.	Low	Medium	Communities in the neighbourhood of the stations will be sensitized and myth of hidden treasures will be demystified right from the station construction stage.
Lack of Skills			
Lack of skilled and dedicated staff at the beginning of the project to maintain a complex water resources information system.	Low	High	The gap was identified during project preparation, a position for an IT specialist has been provided for and procurement of the specialist shall commence as soon as the project is approved by the WB Board of Directors.

### 3.2.6.3 Activity Plan

The activity plan for sub-component 3.3 is shown below.

**Table 13: Implementation Plan for subcomponent 3.3**

OUTCOME	MAIN ACTIVITY(S)	Responsible agency	Deliverable(s)	Detailed Activities
Component 3.3: Water Information Management				
3.3.1 WR Information Management System	3.3.1 Develop WR information system, modelling capability, and DSS (Both national and WMZ level)	DWRM	A fully operational Water Information System in the 4 Water Management Zones	Procurement of goods for the development of the WR information System and DSS/modelling capability including software and equipment at the Water Management Zones
3.3.2 Network for hydro-meteorological, surface, groundwater monitoring	3.3.2 Water quantity (GW and SW) and hydro-met monitoring	M&A	Water Quantity and Hydro-met Monitoring Equipment (17 water resources monitoring stations (5 surface water, 5 groundwater and 2 climate, 5 atmospheric deposition) established)	Procure goods for upgrading of and establishment of identified surface water, groundwater and hydro-meteorological monitoring stations.
				Procure civil works for upgrading of and establishment of identified surface water, groundwater and hydro-meteorological monitoring stations.
				Operate and maintain network
3.3.3 Assessing and managing use of groundwater	3.3.3 Groundwater assessments and managing its use	DWRM	Groundwater availability quantified nationally and for various parts of the country  Sustainability of groundwater development assessed and guidance documents produced	Procure consultant to undertake the assessments  Implement study including monitoring and evaluation

### 3.2.6 Sub Component 3.4: Support to implementation of Water Resources Management Component (US\$1.0m)

The intervention area will support the implementation of the Water Resources Management component through the financing the Project support team, technical trainings (both local and international), community awareness during project implementation and supervision during the implementation of the project.

Funds to facilitate operations of Water Resources Management Component will also be provided.



3.2.6.4 Activity Plan

**Table 14: The activity plan for sub-component 3.4: Support to implementation of Water Resources Management Component**

OUTCOME	MAIN ACTIVITY(S)	Responsible agency	Deliverable(s)	Detailed Activities
3.4.1 Support to implementation of Water Resources Management Component	3.3.1 Staff Trainings (as stated above), Community awareness during project implementation	WRRP	<p>Funds to support staff trainings and community awareness during the project implementation availed</p> <p>Funds to facilitate operations of Water Resources Management Component availed</p>	<p>Community awareness at the start and during the implementation of the project</p> <hr/> <p>Staff trainings; anticipated training areas include:</p> <ul style="list-style-type: none"> <li>a) Water Resources Allocation (basic and advanced)</li> <li>b) Environmental and Social Safeguards</li> <li>c) Reservoir Management</li> <li>d) Dam Safety Management</li> <li>e) Flood forecasting and mitigation</li> <li>f) Modelling of ground water pollution</li> <li>g) Expanded Participatory rural appraisal methods</li> <li>h) Gender and equity budgeting</li> <li>i) Exposure/ learning visits for benchmarking WIS from successful countries</li> </ul>
	3.3.2 Project support team	WRRP	Project team to support implementation of Water Resources Management Component recruited and in place	Procurement of Project Support Team to provide specialized technical support to the component implementation team especially in areas of safeguards, monitoring and evaluation, procurement and financial management.

## Component 4: Project Implementation and Sector Support

### 3.2.7 Component Overview

The component aims to support the implementing agencies – MWE and NWSC – to effectively implement and manage the project, building on existing structures and systems. By strengthening institutions for effective project implementation, it also aims to provide an enabling environment, the institutional support framework, and the management tools for the sector institutions in the transition to integrated water resource management and development. The component will provide support in coordination, communication, and collaboration, as well as funds for required supervisory roles for project implementation. This component comprises two sub-components 4.1 and 4.2 as detailed in section 3.4.1. These two sub-components support the four agencies responsible for day-to-day implementation of Components 1, 2, 3 of the project (UWSD, RWSD, DWRM and NWSC), in addition to a fifth agency – MWE’s Water and Environment Sector Liaison Division (WESLD) – that is responsible for overall project coordination and communications, in addition to supporting overall implementation.

### 3.2.8 Sub-component 4.1: overall project coordination and implementation support (US\$10.1 million)

#### 3.2.8.1 Overview

MWE’s Water Sector Liaison Department (WESLD) is responsible for overall project coordination and communication across the various entities responsible for project implementation (two MWE Directorates – DWRM, DWD – and NWSC). This sub-component supports WESLD to carry out its responsibilities, including the establishment of a Project Support Team (PST). The PST includes specialists in procurement, financial management, environmental and social safeguards, and monitoring and evaluation.

The WESLD through its PST assists all project implementation departments, units and agencies to carry out specialized tasks, as well as consolidate work plans, budgets, monitoring results, compile and consolidate reports, and disseminate outputs (the detailed roles of PST discussed under Chapter 4 as well as Annex 4).

#### 3.2.8.2 Objectives

The objective of this sub-component is to ensure effective project implementation by strengthening coordination and liaison functions, financial management and procurement, monitoring and evaluation, reporting, social and environmental safeguards, as well as by undertaking cross cutting studies.

#### 3.2.8.3 Key Implementation Support activities

The WESLD supported by the PST undertake the following key activities: (i) consolidation of plans, budgets, monitoring results, (ii) compilation of reports, and (iii) dissemination of outputs. The PST also ensures that (iv) the relevant actions/measures proposed in the Water and Sanitation Good Governance and Accountability Action Plan (GGAP) are put in place.

In addition, sub-component 4.1 will support one value for money audit and institute several management tools like checks and balances, including use of the results monitoring framework, disclosure of relevant information, and promotion of social accountability.

#### 3.2.8.4 *Monitoring, reporting and evaluation arrangements*

Sub-component 4.1 will support monitoring, reporting and evaluation of Components 1 & 3 (including Results Framework Outcome and Intermediate Results Indicators), as well as of the overall project development objectives. The detailed implementation arrangements for monitoring, data collection protocol, reviews, reporting and evaluation are described in Chapter 8.

#### 3.2.8.5 *Risks and mitigation measures*

Key risks to sub-component 4.0 are outlined below, along with mitigation measures.

**Table 15: Risks to project implementation and mitigation measures**

Risk	Likelihood	Impact	Risk Management Approach/Mitigating Actions
Untimely implementation of activities due to slow procurement			
Slow procurement thus affecting the timely implementation of investments	Low	medium	Based on the procurement plan, the procurement specialist shall prepare a summary report for management on a bimonthly basis highlighting the following: (i) Progress against major procurements, (ii) A summary of procurements which are behind schedule, and (iii) Challenges being faced and proposals for addressing them to ensure that procurement is on track.
Delays in processing and release of funds			
Slow processing and release of funds thus affecting the timely implementation of investments	Low	medium	The component manager will aim at requesting for funds well in advance in line with the procurement plan.
Delays to acquire adequate office space			
The PST will consist of 7 new staff, while MWE has no free office space. Therefore, new office space needs to be sought.	High	medium	New office space needs to be sought immediately upon commencement of the project while PST recruitment is on-going, ideally in conjunction with procurement of space, equipment and document storage facilities.
Staff engaged in other commitments			
Existing staff may not prioritize the Project following other ongoing commitments	Medium	high	The PST will include staffs that are solely taken on to implement this project. The current staff have all be actively involved in the entire process of IWMDP preparation and kick start activities.

#### 3.2.8.6 *Activity Plan for Component 4*

The activity plan for component 4 is shown below

Table 16: Activity plan OUTCOME	Main activities	Responsible agency	Deliverable(s)	Detailed Activities
Efficient and effective utilization of the project resources and enhanced accountability and transparency through improved institutional monitoring and evaluation, reporting and financial management	Overall project coordination and implementation support	WESLD/MWE	Timely compiled and reviewed work plans, procurement plans, progress reports	<ul style="list-style-type: none"> <li>-Planning and coordinating activities of all components.</li> <li>- Provide strategic direction and communication on project progress and outcomes.</li> <li>-Consolidation of component reports and dissemination.</li> <li>-Provide specialized guidance to components through PST.</li> <li>-Coordinate specific capacity building activities.</li> <li>-Lead in undertaking routine performance reviews, missions and documentation.</li> </ul>
	Establishment of efficient Financial Management system	WESLD/MWE	Comprehensive project financial performance analysis and reports	<ul style="list-style-type: none"> <li>Detailed full cycle and annual project work plan and budget</li> <li>Production of financial status reports</li> </ul>
	Monitoring and Evaluation	WESLD/MWE	Audit reports	Audit
			Project M&E Strategy	M&E system, plan and tools
			Progress Reports	Quarterly, Annual and Policy Reports
			Midterm review report	Midterm review
			End of project evaluation report	End of project evaluation
			VfM reports	VfM studies
	Enhancing good governance		Activities of Good Governance and Accountability Action plan implemented	Monitoring and follow up
	Stakeholder engagement and Training	WESLD/MWE	Mobilization and sensitization workshop reports	Awareness and partnership meetings/ workshops conducted for national, local and lower local government stakeholders on the project design and implementation modalities and their roles and responsibilities.

			<p>Trainings related to the Environmental and Social Management Framework (ESMF)</p>	<p>Workshops on ESMF implementation to MWE, WMDP Focal Point Officers, NWSC, WSDFs, WMZs, Districts (DEOs, DWDs, and DWRM); training for contractors and supervision consultants. Refresher trainings on ESMF implementation</p>
			<p>Training modules and report on Project Financial Management, Procurement and M&amp;E</p>	<p>Refresher training to project management on the FM, Procurement (including contemporary contracts management) and M&amp;E modalities and operationalization.</p>

## Chapter 4: IMPLEMENTATION ARRANGEMENTS

### 4.1 Project Institutional and Implementation Arrangements

The Project will be implemented by two agencies - MWE and NWSC - under the oversight of the Water and Environment Sector Working Group (WESWG) and relevant governing bodies (e.g. NWSC Board of Directors) and will be supported by de-concentrated regional entities (WMZs, WSDFs), local governments and their partners (e.g. district officers, private sector operators) to deliver outputs. The WESWG will enable close coordination of project activities with those of other development partners who are supporting complementary activities under the umbrella of the SWAp. Although NWSC is a corporate body wholly owned by the GoU, it has a close working relationship with MWE which will enable close cooperation in the implementation of related activities.

As noted above, the project's institutional and implementation arrangements have been designed to align with existing structures, build on the comparative advantages and experience of the various departments in the Ministry, enhance coordination and synergies across the different departments, and implement the principles of IWRM across water, environment, and related sectors from the central to the local levels. To facilitate integration within the sector, Memoranda of Understanding (MOUs) outlining joint responsibilities will be signed between the implementing agencies (MWE and NWSC) and the supporting agencies that will be tasked with carrying out specific activities (e.g. NFA, districts) on their behalf.

### 4.2 Roles and Responsibilities of Key Actors

#### a) Water and Environment Sector Working Group (WESWG)

The WESWG membership comprises MWE leadership, NWSC Board of Directors, other line ministries, and all DPs supporting the water and environment sector. Specific roles under IWMDP include;

- i. Providing overall operational and policy guidance to ensure that the Project components and activities are implemented as intended to fulfill the Project objectives.
- ii. For the implementation of the refugee sub component, the MWE will liaise with the OPM and the UNHCR to ensure a coordinated response to refugee inflow, resettlement, and protection issues.
- iii. The WESWG will facilitate coordination of Project activities with other DPs who are supporting complementary activities.
- iv. Monitoring and review of project progress.

#### b) Project Management Team (PMT)

The PMT shall include all MWE and NWSC Component managers, other relevant departments e.g. Internal Audit, PDU, Communication and Accounts, contract managers and all technical staff involved in the project implementation process. The overall coordination of the PMT shall be the responsibility of the Project Coordinator at WESLD. The specific roles include;

- i. The WESLD will liaise with the different implementation teams to coordinate planning, reporting, supervision, and oversight across departments involved in the Project.

- ii. The PMT shall be responsible for identification, approval and management of all contracts under respective components.
- iii. Provision of technical supervision and guidance, including safeguards to ongoing works.
- iv. Compilation of information, analysis and reporting on routine sub project progress.
- v. Participation in management review meetings as scheduled.

### **c) Component Managers**

The respective component/ sub component managers shall have the following roles and responsibilities in the coordination of project implementation process;

- i. Operational level activities including coordination,
- ii. Implementation of the procurement plan and Fiduciary management,
- iii. Monitoring and supervision of their respective component activities and work progress,
- iv. Implementation of activities for their respective components/ sub-components,
- v. Preparation of annual work plans in consultation with the activity teams and PST.
- vi. Ensure decentralized management structures such as TSUs, WMZ, RGCs, districts and NWSC town offices are utilized to support project implementation in each of the project areas.

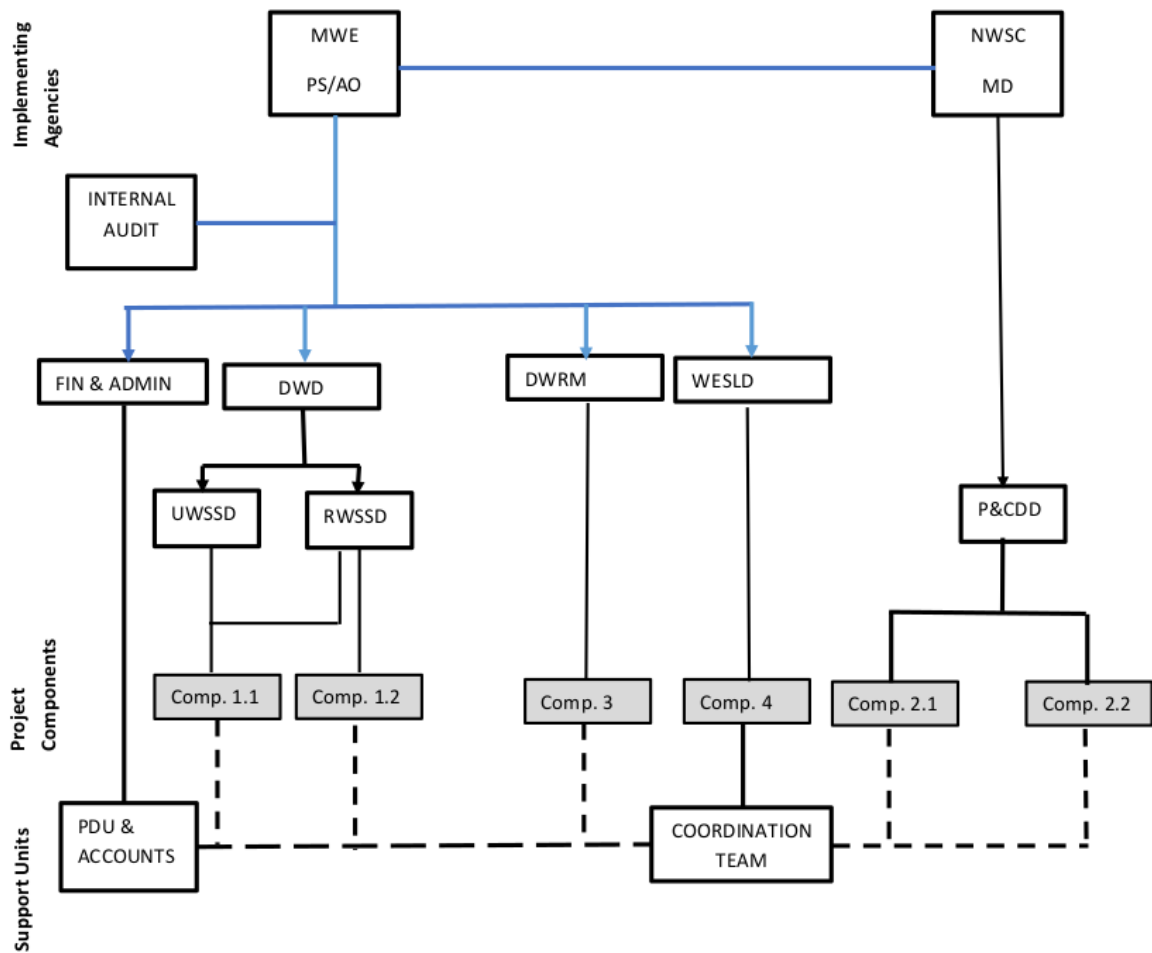
### **d) Project Support Team (PST)**

The WESLD – MWE will engage a PST consisting of Procurement, Financial Management, Project Engineer, M&E and Safeguards specialists (Environment and Social Development) to assist Coordinators and Component Managers in both IAs. The PST will provide support to the WESLD assisting all Project implementation departments and units to carry out the following specialized tasks,

- i. Guiding and Consolidation of project annual work plans and planning budgets submitted by MWE and NWSC,
- ii. Preparation of the Project Implementation Manual, handbooks, and simplified guidelines for implementers.
- iii. Designing systems and guiding in monitoring and evaluation of each component/ sub component implementation activities.
- iv. Preparing quarterly/periodic Project progress reports for submission to PMT, WESWG, WB and all relevant stakeholders.
- v. Supporting the PDU/MWE in procurement of goods and services under each component. Procurement and accounting functions in the NWSC will be undertaken through the respective departments—the PDU and Accounts Section—in line with fiduciary and procurement requirements).
- vi. Support and guide component managers/ contract management teams in preparing ToRs for safeguard consultancies and other various assignments for ‘no objection.’
- vii. Ensuring that the safeguards framework is used throughout the project and alert the funding agency of any potential safeguards violations.
- viii. Preparing Interim Financial Reports for Fund replenishments.

- ix. Sharing and documentation of achievements, best practices, lessons and challenges to inform all key stakeholders, the public as well as local government and national planning.

Figure 2: Overall responsibilities for management, implementation & coordination of activities





## Chapter 5: FINANCIAL MANAGEMENT AND DISBURSEMENT

### 5.1 Introduction

This chapter details the financial management procedures and guidelines that will be followed during IWMDP implementation. The project will utilise existing systems, human resources and guidelines to undertake the financial management function as provided by the Public Finance Management Act (PFMA 2015), that covers areas under budget preparation, approval and management, accounting and audit, cash and asset management and reporting. In addition, World Bank Financial Management guidelines with specific reference to budgeting, disbursement, accounting & internal control, reporting and audit shall also be used under this project.

The MWE and the NWSC are the IAs for the IWMDP and the financial management will utilize existing GoU systems and structures. The Permanent Secretary of the MWE will be the Accounting Officer for Project funds mapped to Components 1, 3, and 4, while the Managing Director of the NWSC will be the Accounting Officer for Project funds mapped to Component 2. On a day-to-day basis, the relevant directorates and departments will be responsible for operational activities including coordination, FM, monitoring, and supervision of their respective component activities. The MWE's Directorate of Water Development (DWD) through its UWSSD will be responsible for small towns under Subcomponent 1.1, the DWD's RWSSD for RGCs under Subcomponent 1.1 and Subcomponent 1.2, the NWSC through its P&CDD for Component 2, the MWE's DWRM for Component 3, and the MWE's WESLD for Component 4 including overall Project coordination. The detailed Project component implementation arrangements are outlined below. Each component or subcomponent has nominated a focal point – an officer in charge of overseeing the implementation of activities mapped to the respective department or directorate. The existing decentralized management structures (WMZs, NWSC town offices, UWAs/UOs, TSUs and WSDFs) and local governments will support the IAs in their efforts to deliver outputs in each of the Project areas.

### 5.2 Budgeting

The budgeting arrangements of the project shall be in accordance with GoU budgeting procedures. The budgets of all the IAs will have to be approved by the respective accounting officers of the MWE and the NWSC.

At the beginning of the budgeting process in September / October every year, the Ministry receives budget ceilings from the Ministry of Finance, Planning and Economic Development (MoFPED) through the Budget Call Circular (BCC); which indicates the detailed Medium Term Expenditure Framework (MTEF) allocations. This is a block allocation of funds to the sector i.e. Water and Sanitation, Environment and Local Governments for conditional grants.

Consultative meetings are then held around November every year with the Water and Environment Sector Working Group (WESWG) chaired by the Permanent Secretary of Ministry of Water and Environment and attended by all stakeholders including Development Partners to establish the key sector priorities and allocate funds to each sub-sector. The allocation of funds is done using the vote function arrangement. This is followed by preparation of a detailed annual Budget Framework Paper

(BFP) around December/January every year using the Program Budgeting System(PBS) and Guidelines from the MoFPED. The Annual BFP indicates sector priorities, planned outputs, targets and key performance indicators; and unfunded priorities. The BFP is submitted to MoFPED by 15th February every year. This is followed by Inter-Ministerial Consultations between sectors and MoFPED to discuss the sector priorities in relation to the Medium Term Budget Ceilings with a view of increasing allocations.

In April every year, the MoFPED then prepares a National BFP which is later presented to Cabinet for approval. However, the Cabinet through MoFPED normally issues the final MTEF figures to sectors for preparation of the final detailed annual budget using the Chart of Accounts. The Performance Contract for the sector is then signed between the Permanent Secretary of MWE and the Permanent Secretary/Secretary to Treasury of the MoFPED. This is followed by preparation of Ministerial Policy Statements (MPS) detailing the annual work-plan by vote and project in May every year. The MPS clearly indicates the detailed budget allocations for each project, quarterly work plans and the annual procurement plans.

The MPS is submitted to Parliament for vetting and appropriation of funds to the sector by MoFPED in June every year. This is finally followed by budget implementation and reporting on quarterly and annual basis. Hence, the IWMDP will identify the key outputs, targets and performance indicators which are well costed to be incorporated into the BFP and the MPS for each Financial Year (FY); starting with FY 2018/19. Clear planned outputs, activities and resources needed from DPs and GoU, as well as the responsible actors, will be identified in the next budget to implement the IWMDP.

The MWE and NWSC will be required to include in their GoU budget any other costs that are not provided for under IDA funding but may be required for effective implementation of the projects especially allowances for contract committees and related allowances not eligible under IDA funding.

### 5.2.1 Budget Execution and Monitoring

The project will be expected ensure all expenditures are within the approved budget and in accordance to approved work plans.

The project will ensure quarterly budget variance analysis reports are generated comparing budgeted figures against actuals and providing explanations for variances noted.

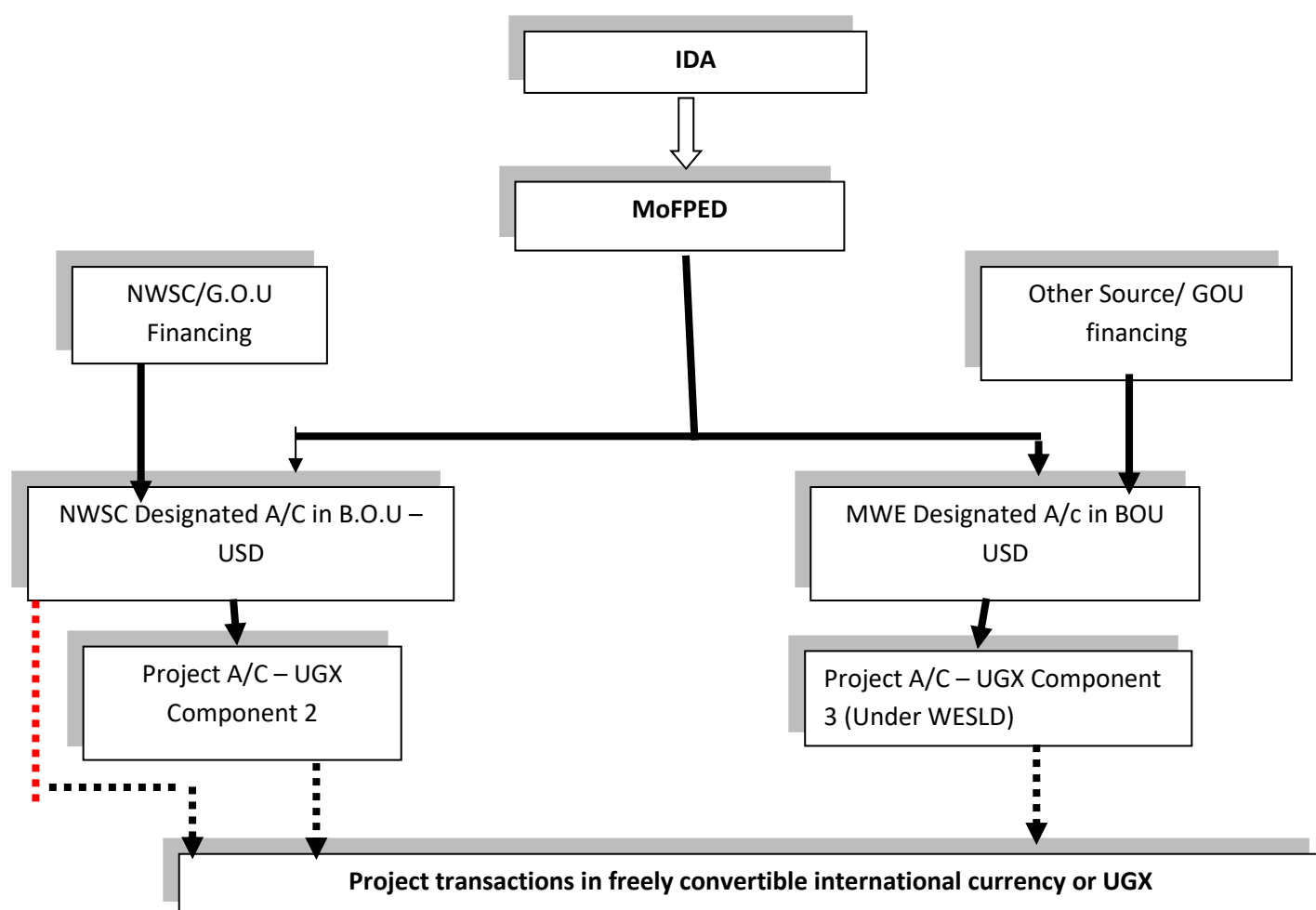
## 5.3 Funds Flow

Bank accounts will be maintained by the MWE and the NWSC (for component 2) for purposes of implementing the project. The IAs will have two designated accounts and project accounts as follows:

- a) **Designated (Special) Account.** The MWE and the NWSC will each establish individual U.S. dollar denominated Designated (Special) Accounts at Bank of Uganda. The Designated (Special) Accounts will receive dollar deposits/transfers from the IDA Credit Account. These funds will be used to meet U.S. dollar payments made at the headquarters as well as to meet transfer of funds to the local currency Project account for meeting the Uganda shilling payments.
- b) **A Project Account** denominated in UGX will be opened in the Bank of Uganda by the MWE and NWSC (one project account) through which payments in local currency will be made. that The project

account will form the primary source of financing for Project activities in local currency. The MWE and the NWSC will each be fully responsible for the management of the accounts, including signatories. Funds flow arrangements for the Project shall be the following IDA will make an initial advance disbursement from the proceeds of the credit and/or grant by depositing into the respective Designated (Special) Accounts. Actual expenditure will be reimbursed through submission of Withdrawal Applications together with IFRs, as applicable. The MWE and the NWSC will each be responsible for all foreign payments out of their Designated (Special) Accounts. They will also be responsible for local currency payments out of the Project accounts. For the MWE, payments will be approved and signed by the Accounting Officer (Permanent Secretary, MWE) as the principal signatory and the person designated by the Accountant General who, in this case, is the Assistant Commissioner-Accounts. Other designated signatories will also be signatories to the bank accounts as and when proposed and approved. For the NWSC, there will be two categories of signatories—A and B. Category A, which is mandatory, is the Managing Director and Category B is the Deputy Managing Director Finance and Corporate Strategy. It is expected that acceptable FM arrangements will continue to be in place throughout Project effectiveness and implementation.

The proposed funds flow within the IAs is given in figure 3. The signatories for the project will be in accordance with the Treasury Accounting Instructions/ Public Finance and Accountability Act, 2003. Payments will be approved and signed by The Accounting Officer/Permanent Secretary as the principal signatory and the person authorized by the Accountant General who in this case is the Principal Accountant/Assistant Commissioner-Accounts. As for the NWSC, it will be the Managing Director as principal signatory and Finance Director or other authorized officers.



### Figure 3: Flow of funds

#### 5.4 Disbursement Arrangements

The Project will apply a report-based disbursement system. Initially, requests to the World Bank for disbursements will be based on approved work plans and cash flow projections for eligible expenditures for six months. The World Bank will make advance disbursements from the proceeds of the credit into the Project Designated (Special) Accounts to expedite Project expenditures as evidenced by quarterly IFRs. The MWE and the NWSC have established effective FM and accounting systems, which will facilitate regular disbursements. The Project will need to (a) sustain satisfactory FM rating during Project supervision, (b) submit IFRs consistent with the agreed form and content within 45 days of the end of each reporting period - calendar quarter, and (c) submit timely and satisfactory audited annual financial statements within six months after the end of the financial year.

Initial disbursement arrangements for the project, through the designated bank accounts, will be as follows:

1. The initial advance to the Implementing Agencies will require each to prepare a six months cash forecast for the project based on the approved work plan and submit the advance withdrawal application to the Bank after the effectiveness of the project. Subsequent withdrawal applications should be submitted quarterly with IFRs within 45 days after the end of the quarter. The quarterly periods follow the calendar year quarters hence IFRs should be prepared as of end of March, June, September and December.
2. The initial advance from the proceeds of the Credit will be deposited into borrower operated designated accounts (MWE and NWSC held at BoU denominated in United States Dollars as shown in
3. Funds can be transferred from the project designated account to the project account denominated in Uganda Shillings to make payments in Uganda Shillings or transfer to other lower level implementing agencies.
4. The project expenditure can be paid from either the designated accounts or the project accounts.
5. Subsequent disbursement will be based of the quarterly IFRs that will be submitted by each of the IAs.

If ineligible expenditures are found to have been made from the designated account, GoU will be obligated to refund the same. If the designated account remains inactive for more than six months, the GoU may be requested to refund to IDA amounts advanced to the designated account.

IDA will have the right, as reflected in the Financing Agreement, to suspend disbursement of the funds if reporting requirements are not complied with.

#### 5.5 Financial Management

Under the MWE, the Project's transactions will be managed within the existing setup as stipulated in the PFMA 2015 . The activities and transactions will be approved and authorized by the Permanent

Secretary who is the Accounting Officer. All transactions will be processed in accordance with GoU established controls and procedures.

The MWE has a fully functioning Accounts Department headed by the Assistant Commissioner of Accounts, a qualified accountant. The Department has a senior accountant and several accounts assistants. The main accounts of the MWE are computerized with the IFMS. However, this system is only operational for government funds, and the Project module was piloted and can generate standard financial reports but not harmonised donor reports.

## 5.6 Financial Reporting

The MWE and the NWSC will prepare interim financial reports (IFRs) on a quarterly basis and submit them to the World Bank no later than 45 days after the end of each calendar quarter as stipulated in the World Bank financial management guidelines. Annual financial statements will be prepared in accordance with International Public Sector Accounting Standards (which, among others, include the application of the cash basis of recognition of transactions). Audited financial statements will be submitted to the World Bank within six months of the end of the financial year. The statements will follow the formats used under the WMDP.

For external audits, the Auditor General is primarily responsible for auditing all government projects. Usually, if the audit is subcontracted to a firm of private auditors; the final report is usually issued by the Auditor General and based on the tests carried out by the subcontracted firm. The private firms to be subcontracted should be among those that are acceptable to the World Bank. In case the audit is subcontracted to a firm of private auditors, IDA funding may be used to pay for the cost of the audit. The audits will be conducted in accordance with International Standards on Auditing.

## 5.7 Audit function

The MWE has an Internal Audit Unit comprising of four internal auditors seconded from the MoFPED's Department of Internal Audit. There is also an audit committee in place at the MOFPED to which the Internal Audit Unit reports. The committee meets quarterly to review internal audit findings and the actions that have been taken to address them. The MWE's Permanent Secretary ensures that action is taken to implement internal audit recommendations and where action is not taken, the findings are also reported in the external audit report. The audit committee closely follows up on the actions taken by the MWE as part of its oversight role.

The Project's financial statements will be audited by the Auditor General in accordance with statutory requirements, auditing standards, and suitable ToRs. Regarding internal controls, the internal audit function in the MWE works well. However, improvements will be required for the Project during implementation, given the Project's countrywide coverage. Actions are required to improve timely submission of the MWE's internal audit review reports and to fully operationalize the Project module of the IFMS.

For the NWSC, like MWE, the Project's transactions will be managed within its existing setup that also follows provisions of the PFMA 2015. The activities and transactions will be approved and authorized

by the Managing Director. All transactions will have to be processed in accordance with the policies and procedures of the NWSC that are in harmony with the PFMA2015. The NWSC has a fully functional Finance and Accounts Department headed by the Deputy Managing Director of Finance and Corporate Strategy who is a qualified accountant. The Accounting Unit of the NWSC is computerized with Iscala accounting systems. The NWSC also has an Internal Audit Department comprising qualified and experienced auditors. There is also an audit committee of the Board in place. The Project's financial statements will be audited by the Auditor General in accordance with statutory requirements, auditing standards, and suitable ToRs. Currently, the NWSC is audited by Pannel Kerr Forster (PKF)-Uganda on behalf of the Auditor General. The accounting and internal control arrangements are sound and acceptable for implementation of the Project. To ensure that the Project is effectively implemented, the MWE and the NWSC will have to ensure that appropriate staffing arrangements are maintained throughout the life of the Project.

Funds will flow from IDA to the MWE and the NWSC. For both the MWE and the NWSC, all funds will be expended at headquarters as the activities will be implemented as a centralized project.

Key risks envisaged under the Project are the following: (a) ministry internal audit review reports are not shared regularly with the World Bank. This is risky given the number of ongoing activities and spread of operations where such reviews give management needed assurance of fiduciary status and (b) the IFMS has not been fully operationalized at the Ministry, which increases the risk of errors and accuracy of financial reports.

The conclusion of the assessment is that the FM arrangements for the Project have an overall risk rating of Moderate.

**Table 17: IWMDP summary annual disbursement projections in USD**

COMPONENT	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
1.1 WSS in Small Towns and RGC	-	9,810,990	14,716,485	19,621,980	24,527,475	19,621,980	14,701,091
1.2 Support to Districts Hosting Refugees	-	4,890,000	7,335,000	9,780,000	12,225,000	9,780,000	7,990,000
2.1 WSS in Large Towns	-	6,945,656	10,418,485	13,891,313	17,364,141	13,891,313	9,497,998
2.2 Support to District Hosting Refugees	-	1,799,109	2,698,664	3,598,219	4,497,774	3,598,219	1,799,109
3. Water Resource Management	-	2,500,000	3,750,000	5,000,000	6,250,000	5,000,000	2,500,000
4. Project Implementation and Institutional Strengthening	262,803	1,483,973	621,605	736,605	621,605	621,605	651,803
<b>Annual Projections</b>	<b>262,803</b>	<b>27,429,729</b>	<b>39,540,239</b>	<b>52,628,117</b>	<b>65,485,995</b>	<b>52,513,117</b>	<b>37,140,001</b>
<b>Cumulative projections</b>	<b>262,803</b>	<b>27,692,532</b>	<b>67,232,771</b>	<b>119,860,887</b>	<b>185,346,882</b>	<b>237,859,999</b>	<b>275,000,000</b>

NB: The assumption is that disbursements will begin in January 2019 i.e. during the second half of the FY 2018/2019

**Table 18: Disbursement Table**

	Budget	Year 1 Jan19/June19	Year2 July19/June20	Year3 (Jul 20- June 21)	Year4 (July 21-June 22)	Year5 (July22- June23)	July 23- June24)	Year7 (July 24 -December 24
<b>COMPONENT 1.1 a- DWD</b>								
Busia water supply system	9,915,917		991,592	1,487,388	1,983,183	2,478,979	1,983,183	991,592
Butaleja-Busolwe/Budaka- kadama/Tirinyi-Kibuku	16,478,000		1,647,800	2,471,700	3,295,600	4,119,500	3,295,600	1,647,800
Namasale water supply system	2,438,406		243,841	365,761	487,681	609,602	487,681	243,841
Namungalwe-Kaliro water supply system	5,104,850		510,485	765,728	1,020,970	1,276,213	1,020,970	510,485
Kyegegwa-Mpara-Ruyonza water supply system	7,581,206		758,121	1,137,181	1,516,241	1,895,302	1,516,241	758,121
Hygiene Education & Sanitation for all towns	200,000		20,000	30,000	40,000	50,000	40,000	20,000
Works supervision for Busia/Kyegegwa/Namungalwe/Namasale	1,500,000		150,000	225,000	300,000	375,000	300,000	150,000
Works supervision for Mbale	450,000		45,000	67,500	90,000	112,500	90,000	45,000
Construction supervision	107,520		10,752	16,128	21,504	26,880	21,504	10,752
Support to Umbrella Authorities	3,794,000		379,400	569,100	758,800	948,500	758,800	379,400
Component contingency	2,445,051							2,445,051
<b>Total</b>	<b>50,014,950</b>	-	<b>4,756,990</b>	<b>7,135,485</b>	<b>9,513,980</b>	<b>11,892,475</b>	<b>9,513,980</b>	<b>7,202,041</b>
<b>COMPONENT 1.2- Rural water</b>								
Nyamugasani (Kasese cluster water supply system)	9,786,000		978,600	1,467,900	1,957,200	2,446,500	1,957,200	978,600
Bitsya Water supply system	2,924,000		292,400	438,600	584,800	731,000	584,800	292,400
Solar powered piped water system	37,830,000		3,783,000	5,674,500	7,566,000	9,457,500	7,566,000	3,783,000
Component contingency	2,445,050							2,445,050
<b>Total</b>	<b>52,985,050</b>	-	<b>5,054,000</b>	<b>7,581,000</b>	<b>10,108,000</b>	<b>12,635,000</b>	<b>10,108,000</b>	<b>7,499,050</b>
<b>COMPONENT 1.3- Rural Host refugees</b>								



	Budget	Year 1 Jan19/June19	Year2 July19/June20	Year3 (Jul 20- June 21)	Year4 (July 21-June 22)	Year5 (July22- June23)	July 23- June24)	Year7 (July 24 -December 24
Large solar powered systems	22,400,000		2,240,000	3,360,000	4,480,000	5,600,000	4,480,000	2,240,000
Large gravity schemes	19,300,000		1,930,000	2,895,000	3,860,000	4,825,000	3,860,000	1,930,000
Sanitation and hygiene	3,150,000		315,000	472,500	630,000	787,500	630,000	315,000
Catchment management and restoration	4,000,000		400,000	600,000	800,000	1,000,000	800,000	400,000
Data quality management and reporting	50,000		5,000	7,500	10,000	12,500	10,000	5,000
Component contingency	3,100,000							3,100,000
<b>Total</b>	<b>52,000,000</b>	-	<b>4,890,000</b>	<b>7,335,000</b>	<b>9,780,000</b>	<b>12,225,000</b>	<b>9,780,000</b>	<b>7,990,000</b>
<b>COMPONENT 2.1&amp; 2.2- NWSC</b>								
Mbale water supply system	40,486,285		8,097,257	3,798,629	5,697,947	7,597,947	9,496,571	5,798,628
Gulu water supply system	28,750,000		5,750,000	2,875,000	8,862,500	4,500,000	6,762,500	
Arua full scale source protection	1,837,649		183,765	643,177	643,177	183,765	183,765	
Bushenyi full scale source protection	782,630		117,395	117,395	217,396	126,083	204,363	78,263
Institutional strengthening	100,000		20,000	10,000	15,000	10,000	15,000	30,000
Adjumani water supply system	17,991,094		1,099,109	6,296,883	1,598,219	4,097,774	3,598,219	1,300,890
Component Contingency	2,552,342				638,086	638,086	638,086	638,086
<b>Total</b>	<b>92,500,000</b>		<b>14,168,416</b>	<b>8,543,310</b>	<b>21,732,898</b>	<b>14,653,410</b>	<b>21,398,059</b>	<b>10,064,933</b>
<b>COMPONENT 3- DWRM</b>								
Lwakhakha Catchment	1,503,444		150,344	526,206	526,205	100,000	100,000	100,689
Kochi-Albert Nile	2,693,422		269,342	942,697	942,698	200,000	180,000	158,684
Aswa Catchment	2,125,711		212,571	743,999	743,999	180,000	100,000	145,142
Middle Awoja integrated water system	2,739,778		273,978	958,923	958,923	250,000	185,300	112,656
Preparation of 4 Catchment Management Plans	5,700,000		1,140,000	1,995,000	2,565,000			

	Budget	Year 1 Jan19/June19	Year2 July19/June20	Year3 (Jul 20- June 21)	Year4 (July 21-June 22)	Year5 (July22- June23)	July 23- June24)	Year7 (July 24 -December 24
Upgrading the National Water Quality reference laboratory at Entebbe	1,100,000		400,000	400,000	200,000	100,000		
Water Information System	2,500,000		250,000	875,000	750,000	625,000		
Establishment of 17 monitoring stations	1,736,000		173,600	260,400	347,200	434,000	347,200	173,600
Assessing and managing the use of groundwater	2,000,000		200,000	500,000	500,000	600,000	100,000	100,000
Support to implementation of Water Resources Management Component	1,150,000		100,000	200,000	250,000	300,000	200,000	100,000
Preparation of Albert WMZ Water Resources Strategy	1,401,645		350,412	630,740	420,494			
<b>Total</b>	<b>25,000,000</b>		<b>3,820,247</b>	<b>8,282,965</b>	<b>8,054,519</b>	<b>2,739,000</b>	<b>1,212,500</b>	<b>890,771</b>
<b>COMPONENT 4- Institutional strengthening</b>								
Vehicles and service	776,600	5,134	725,265	10,267	10,267	10,267	10,267	5,134
IT Equipment	22,370		22,370					
Tools and equipment to support operations of Albert, Kyoga and Upper Nile WMZs procured	250,000		100,000	150,000				
PST Operational costs	278,040	23,170	46,340	46,340	46,340	46,340	46,340	23,170
Safeguard monitoring	84,000		14,000	14,000	14,000	14,000	14,000	14,000
Institutional Capacity Building	300,000		50,000	50,000	50,000	50,000	50,000	50,000
Project Review and Evaluation	315,000				115,000			200,000
PST Staff salaries	2,813,990	234,499	468,998	468,998	468,998	468,998	468,998	234,499
Sector Financing Analysis	250,000		125,000					125,000
Technical support towards Regulation	160,000		32,000	32,000	32,000	32,000	32,000	
<b>Total</b>	<b>5,000,000</b>	<b>262,803</b>	<b>1,483,973</b>	<b>621,605</b>	<b>736,605</b>	<b>621,605</b>	<b>621,605</b>	<b>651,803</b>
<b>GRAND TOTAL</b>	<b>275,000,000</b>	<b>262,803</b>	<b>27,429,729</b>	<b>39,540,239</b>	<b>52,628,117</b>	<b>65,485,995</b>	<b>52,513,117</b>	<b>37,140,001</b>

## 5.8 Accounting

### 5.8.1 Books of accounts and list of accounting codes

The MWE and the NWSC will maintain books of accounts similar to those for other IDA funded projects. The books of accounts to be maintained specifically for the project should be set up and include: a cashbook, ledgers, journal vouchers, fixed asset register and a contract5s register.

The books of accounts will be maintained on a computerized system. A list of account codes (Chart of Accounts) for the project shall be drawn up. This should match with the classification of expenditures and sources and application of funds indicated in the Financing Agreement. The Chart of Accounts should be developed in a way that allows project costs to be directly related to specific work activities and outputs of the project.

For NWSC, specific codes will be created in the existing *Scala* accounting system to reflect funding sources and utilisation for the IDA project.

## 5.9 Financial Management Manual

Project financing is mainly through IDA funding and will follow the existing financial management arrangements as provided for in the Public Finance Management Act 2015 and World Bank Guidelines together with the provisions of this PIM.

The MWE and NWSC (for component 2.1), will coordinate all activities of the project. With specific reference to financial management, they will be required to:

1. Prepare budgets for their units.
2. Prepare cash flow forecasts for disbursements.
3. Submit Withdrawal applications to the Bank.
4. Write books of accounts within their entities.
5. Prepare financial reports as per agreed formats.
6. Handle contract management within their units.
7. Arrange for external audits through the Auditor General.

## 5.10 Accounts staffing

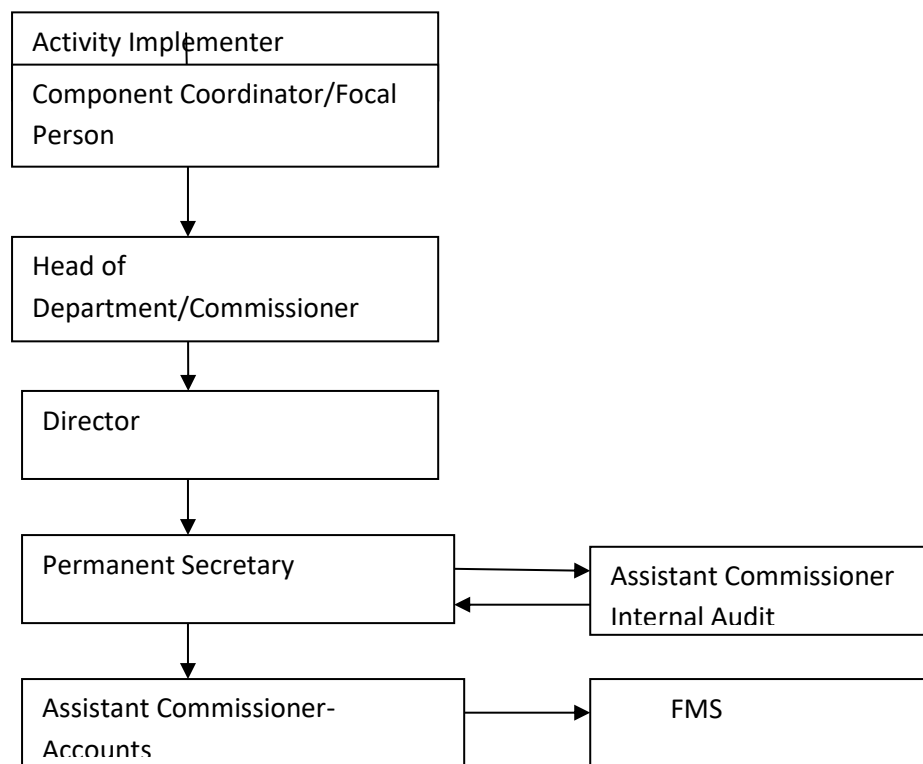
At the Ministry headquarters (MWE), a Financial Management Specialist (FMS) at the level of Senior Accountant and Assistant Financial Management Specialist (AFMS) at the level of Accountant will be procured for the project. The FMS will report to the Ministry Assistant Commissioner - Accounts. The Ministry will designate/assign junior established Accounts Assistants to help routine processes.

The MWE will not run parallel staff arrangements at the WSDFs, but instead utilize them for funds disbursements and receipt of accountabilities and reports. The accounts staff at the WSDFs will be used.

The FMS will be in-charge of requisitions from IDA to designated accounts and from designated accounts to the project accounts. The AFMS will be in-charge of expenditures. Figures 4 and 5 below summarise the approval and funds accountability processes that will be utilised for disbursements

under the MWE. The corresponding processes for disbursements of project funds under NWSC are summarised in figures 6 and 7.

**Figure 4: MWE approval process**



(For processing of payments)

Figure 5: MWE funds accountability

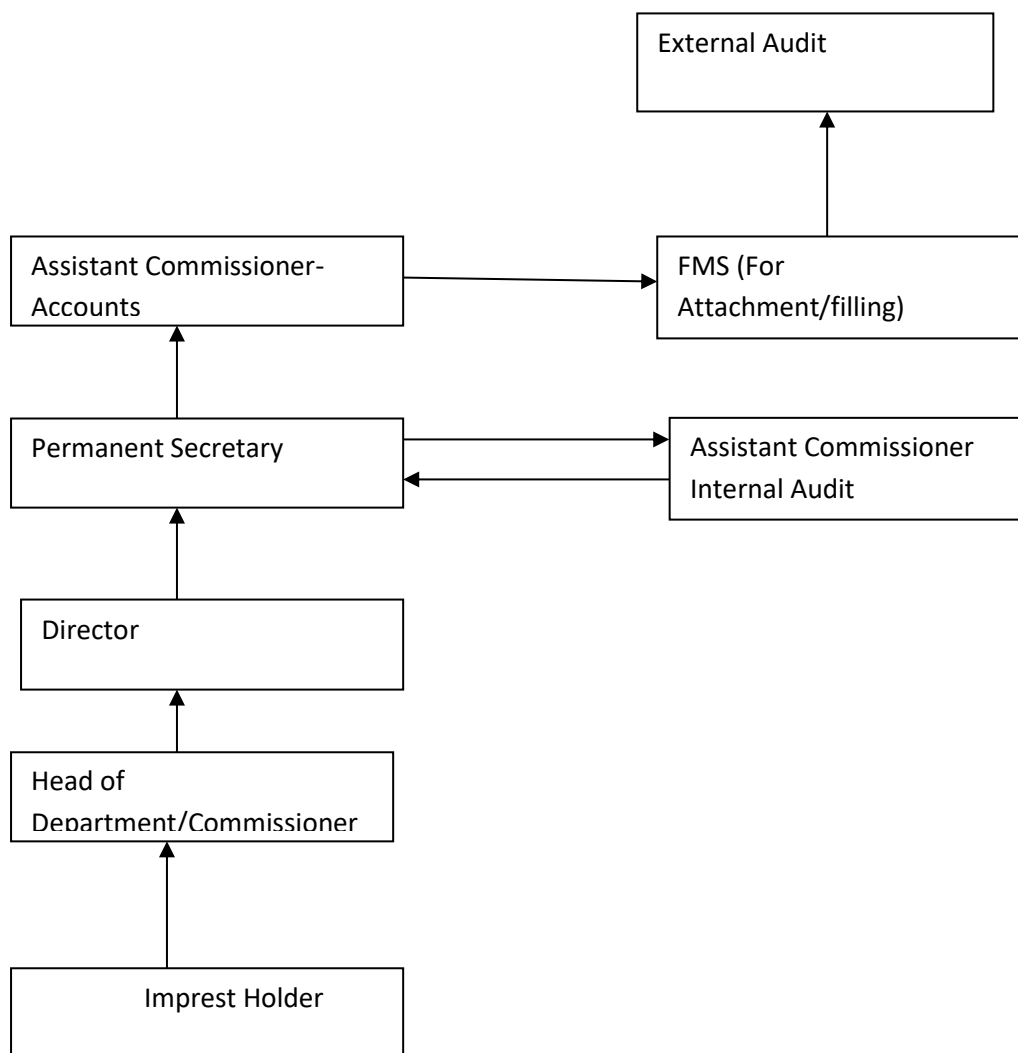


Figure 6: NWSC approval process

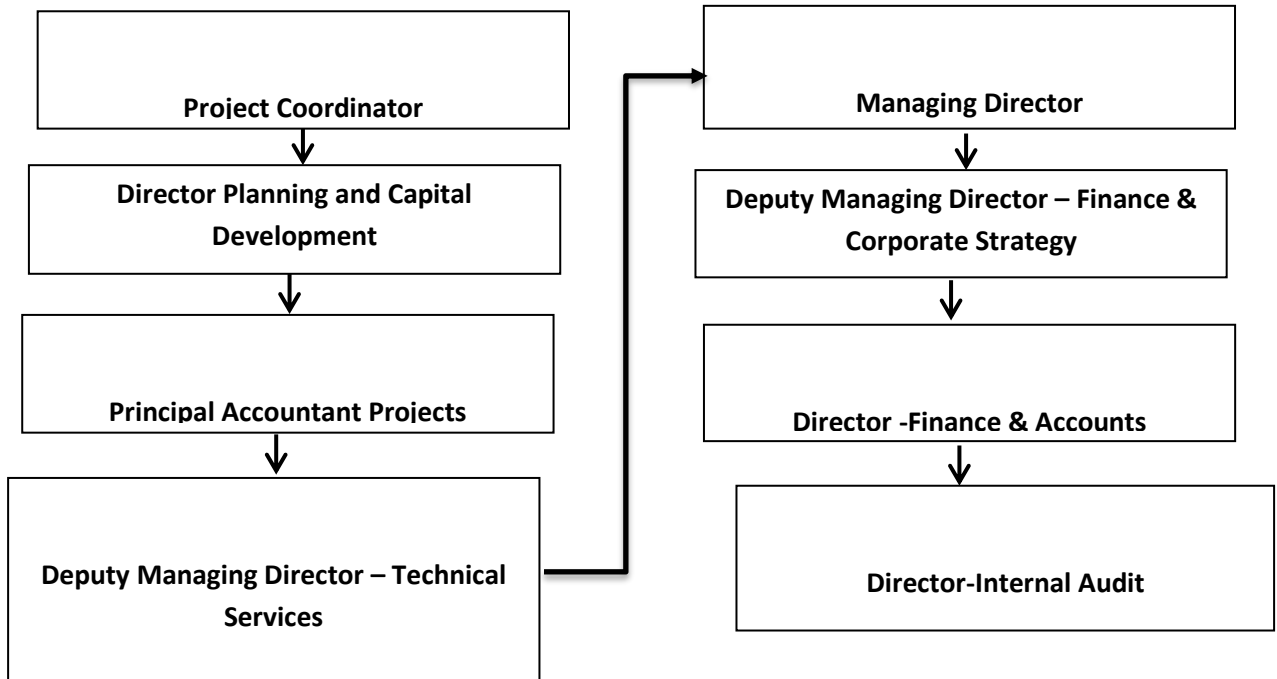
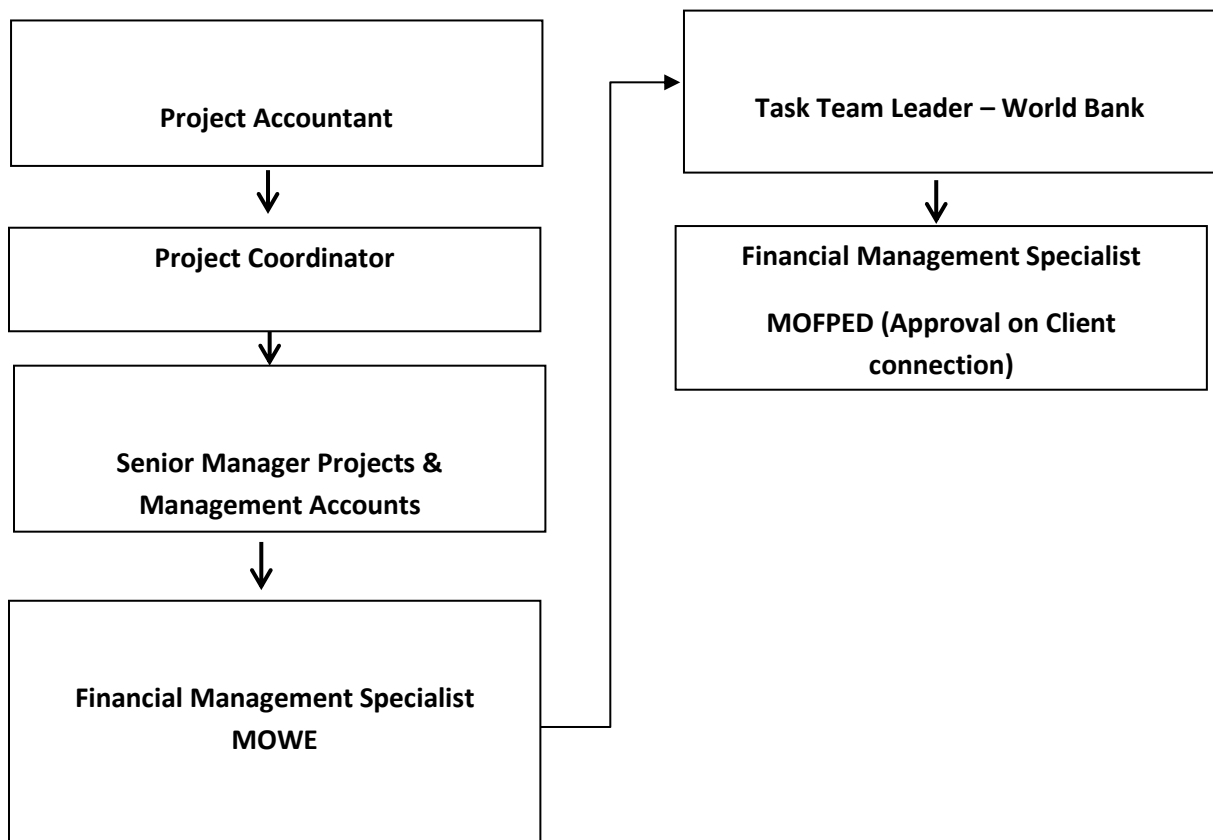


Figure 7: NWSC funds accountability



### 5.11 Information systems

The Project shall have adequate information systems to account for the project funds. Accounting software will be used and all the staff will be trained to use the software to produce the projects accounts. At the MWE, the project will utilize IFMS while NWSC will be using the Scala accounting software.

### 5.12 Financial Reporting

The MWE and NWSC will be required to submit accurate and complete quarterly reports in a format acceptable to the Bank. The format was agreed during project preparation and the entire accountants will undergo training on the same before project implementation commences. The financial reports are designed to provide quality and timely information to the project management, implementing agencies and various stakeholders monitoring the project's performance.

The following will form part of the quarterly Interim Financial Reports (IFRs) that will be produced by the IAs:

- a) Sources and uses of funds.
- b) Sources and uses of funds by category.
- c) Expenditure by category.
- d) Designated Account Activity Statement.
- e) Summary statement of expenditure subject to prior review.
- f) Summary statement of expenditure not Subject to Prior Review.
- g) Special account reconciliation statement.
- h) Bank account reconciliations.
- i) Bank statements

The MWE and NWSC will be required to prepare annual financial statements for their components. The financial statements shall be prepared in accordance with International Public Sector Accounting Standards, which inter alia, include the application of the cash basis of recognition of transactions. The financial statements shall be submitted to the Auditor General for audit by August 31 of each financial year.

The Project financial statements will be comprised of:

1. A statement of cash receipts and payments for the financial year which recognizes all cash receipts, cash payments and cash balances controlled by the entity and separately identifies payments by third parties on behalf of the entity.
2. Budget Execution Statement for the financial year.
3. The accounting policies adopted and explanatory notes. The explanatory notes should be presented in a systematic manner with the items on the statement of cash receipts and payments being cross-referenced to any related information in the notes. Examples of this information include a summary of fixed assets by category of assets, and a summary of the withdrawal schedule, listing individual withdrawal applications.

Management assertion that the Bank funds have been expended in accordance with the intended purposes as specified in the relevant World Bank legal agreement.

### 5.13 Internal controls

The internal controls (including processes for recording and safeguarding fixed assets) that will be used for the project shall be in accordance with the government's finance and accountability requirements. These requirements describe:

1. The accounting system which includes the major transaction cycles of the project. Both GoU and World Bank intend to have all new projects on IFMS accounting system.
2. Funds flow processes.
3. The accounting records, supporting documents, computer files and specific accounts in the financial statements involved in the processing of transactions.
4. The list of accounting codes used to group transactions (Chart of Accounts).
5. The accounting processes from the initiation of a transaction to its inclusion in the financial statements.
6. Authorization procedures for transactions.
7. The financial reporting process used to prepare the financial statements and financial monitoring reports, including significant accounting estimates and disclosures.
8. Financial and accounting policies for the project.
9. Budgeting procedures.
10. Financial forecasting procedures.
11. Procurement and contract administration monitoring procedures.
12. Procedures undertaken for the replenishment of the special account.
13. Auditing arrangements.

### 5.14 Internal audit

All the IAs have experienced internal auditors. Establishment of audit committees make the internal auditors accountable for their work. Each of the implementing components have the internal audit department whose responsibility is to ensure that internal control measures put in place are adhered to.

The internal audit departments will be required to conduct quarterly internal audit reviews on the project activities and submitting their reports to the Bank within 30 days after the end of each quarter. The projects will ensure adequate resources are provided for such reviews.



## 5.15 External Audit

The Auditor General is primarily responsible for the auditing of all government projects. If the audit is subcontracted to a firm of private auditors, with the final report being issued by the Auditor General, IDA funds may be used to pay the cost of the audit. The audits should be done in accordance with international Public Sector standards on auditing.

The audit report together with the management letter for the project should be submitted to IDA within six months after the end of each financial year. Any firm of auditors subcontracted to carry out the audit should meet IDA's requirements in terms of independence, qualifications and experience and must be among the list of approved firms.

The ToRs for external audit must be agreed between the Bank and the IAs and the external auditor must be appointed within six months of credit effectiveness.

GoU has a policy that allows public disclosure of audit findings as stipulated in the Audit Act, 2008. Under the Press and Journalism Act, 2001, the media also has access to information such as audit findings. In addition, the public is allowed to attend the Public Accounts Committee of parliament when it is addressing audit issues.

## 5.16 Allowances and ineligible expenditures

### 5.16.1 Allowances

The following rules and practices apply to projects financed by IDA unless otherwise explicitly provided for in the Development Credit/Grant Agreement.\* These rules and practices apply to all project funds required to finance the total project cost, including IDA credit and counterpart funds.

**Table 19: Allowances**

Type of Allowance	Basis	Comments
Salary top-up to Civil/Public Servants	Not allowed	Best scenario is for the government to devise an incentive program as part of a broader civil service reform program
Sitting allowance to Civil/Public Servants (for attending workshops, Project Steering Committee meetings, other committee meetings, etc.)	Not allowed	Civil/Public Servants are paid to work for the government. Given that donor-financed projects are owned by the Government, the civil servants are still working for the Government when they provide support in implementing projects.
Honorarium to Civil/Public Servants (payment for services performed in committees, meetings, workshops, etc)	Not allowed	Ditto
Internal consulting of public and civil servants currently on the government payrolls	Not allowed	This could amount to double payments to government employees. The government should not be paying consulting fees to staff on its payroll.  A government employee may take a leave of absence (without pay) to work in another sector and be paid consulting fees by the government/project. The General conditions for hiring Government officials and civil servants under consulting contracts in Bank financed projects** are set forth in para. 1.11(d) of the

Type of Allowance	Basis	Comments
		Consultant Guidelines. The Government officials and civil servants cannot be hired under any circumstances by the agency for which they previously worked, or if their employment would create a conflict of interest. When hired as individual consultants, they would have to be on leave without pay for the expected duration of their consultant contract before signing it. When members of a team of a consulting firm, they would have to be on leave without pay at the time the consulting firm submits its proposal.
Travel and Transport	Only as per governing rates***	Receipts are required for local travel expenses; receipts required for actual cost reimbursement accommodation but not for lump sum hotel allowance; and receipts required for incidental expenses. Gasoline purchased for personal vehicles are not reimbursable.
Per Diem	Only as per governing rates/or less***	Ceilings apply
Sitting allowances, honorarium, etc. to consultants financed under a project (for attending workshops, Project Steering Committee meetings, other committee meetings, etc.)	Not allowed	Consultants are contracted and paid reasonable fees to render services to the project

## Notes:

\* These rules also apply to IDF or recipient-executed TF.

\*\* Please note that financing of civil servants salaries (which is governed by the Bank's policy on financing recurrent costs; refer to [OP/BP 6:00, Bank Financing](#)) is different from recruiting civil servants as consultants under projects financed by the Bank (refer to [Consultants Guidelines](#)).

\*\*\*The reference to **governing rate** (in the table above) means the rate currently agreed between the Government, Bank and other DPs (an harmonized rate is preferred). In most cases, this would be the UNDP rate, which normally involves **lump sum hotel allowance and per diem**. However, the governing rate could be the Government or Bank rate if any of these is lower than the UNDP rate and preferred by the Government.

**5.14.2 Ineligible expenditures include:**

- Expenditure contrary to Loan Agreement (FA)
- Expenditure contrary to GoU rules and regulations
- Expenditure on different categories that may not be remedied.
- Funds not used for purposes intended deemed ineligible
- Unsupported expenditure
- Expenditure where there are value for money issues
- Expenditure where there is potential fraud and corruption issues.
- Expenditure not approved.
- Funds refunded to DA;

## Chapter 6: PROCUREMENT

The procurement under the IWMDP shall be based on and conform to the operational policies and guidelines of the Government of Uganda and the World Bank and adequately meet their requirements. These shall include the Public Procurement and Disposal of Public Assets (PPDA) Act and the attendant Regulations; and the World Bank Procurement Regulations for Borrowers under Investment Project Financing” dated July 1, 2016 revised August 01 2018 (“Procurement Regulations”), the ‘Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated July 1, 2016; and other provisions stipulated in the Financing Agreement. Whenever the provisions of the PPDA Law and Regulations are inconsistent with provisions of the Procurement Regulations, the Procurement Regulations will supersede. This has been detailed in a separate Procurement Management Manual (PMM) prepared for this project.

Procurement will be conducted by the implementing agencies that are participating in the project. The MWE Procurement Plan for first 18 Months is summarized under Annex 1 of this manual. NWSC by law has its own Procurement and Disposal Unit and its own Contract Committee independent from MWE.

The implementing agencies will build upon their experience in public procurements under GoU and donor funded projects and programmes including the World Bank. For example, the experience gained during the implementation of WMDP shall be built on during the implementation of the project.

A capacity assessment of the MWE and the NWSC was conducted during project appraisal, and the findings, key risks and the mitigation measures were agreed on with the Bank; each accounting officer will ensure that the measures applicable to that particular entity are implemented.

## Chapter 7: ENVIRONMENTAL AND SOCIAL SAFEGUARD MANAGEMENT

### 7.1 Overview

The proposed Integrated Water Management and Development Project (IWMDP) gives greater emphasis to issues of safeguards. In so doing, besides design and construction of infrastructure, the projects shall incorporate environmental and social safeguards, catchment & water source protection through the adoption, promotion and implementation of efficient environmental and social strategies and management methods to ensure sustainability of the installed infrastructure as well as water sources and their catchments.

To provide greater guidance on the implementation of environmental and social safeguards requirements, an Environmental and Social Management Framework (ESMF) has been developed alongside the Resettlement Policy Framework (RPF) as foundational frameworks for safeguard assessments and implementation. These instruments are meant to guide on how to screen, assess, and manage potential environmental and social impacts associated with the IWMDP during implementation.

### 7.2 Basis for considering Safeguard issues under IWMDP:

All development projects financed by the World Bank have to comply with the environmental and social safeguards. Similarly, the national policy direction is that all development projects which may pose negative impacts to the environment and the society need to have modalities for addressing or mitigating such issues. In this case, IWMDP compliance to safeguard policy requirements of the World Bank and Government of Uganda shall be ensured through diligent application of the ESMF and RPF. The precise focus during project implementation shall be project specific Environmental and Social Screening, preparation of Environmental and Social Impact Assessments (ESIAs), implementation of Environmental and Social Management Plans (ESMPs), Resettlement Action Plans (RAPs) and Environmental & Social Audits (ESAs). All these working documents have to be prepared in accordance with the WB Environmental and Social safeguards policies and Environmental Laws of Uganda.

### 7.3 Objectives for considering environmental and social safeguards under IWMDP:

Emphasis is being put on environmental and social safeguards under the IWMDP mainly for the following reasons:

- ♣ To ensure that planned IWMDP activities and interventions are undertaken in a manner that avoids or minimizes negative environmental and social impacts as much as possible. Where they cannot be avoided, necessary mitigation measures which are in line with the Government of Uganda environmental and social legislations, World Bank's safeguards policies and international best practice shall be pursued.
- ♣ Establish clear procedures and methodologies for the environmental and social assessment, review, approval and implementation of investments to be financed under the project;
- ♣ Specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to project investments.

- ♣ Determine the training, capacity building and technical assistance needed to successfully implement the provisions of the RPF and ESMF and the subsequent ESIA/ESMPs, as applicable; and provide practical information on resources required to implement the ESMF requirements.
- ♣ Establish the resettlement and compensation principles and implementation arrangements for Project Affected Persons (PAPs) under the IWMDP.

## 7.4 Legislative framework:

### 7.4.1 Key National Legislations relevant to the IWMDP.

The legal framework determines the provisions required to safeguard the following:

- ♣ Consultation regarding resettlement activities - alternative sites for relocation to choose from; and provision of resettlement assistance if required;
- ♣ Provision of timely compensation for lost assets at full replacement cost; for improvement of people's livelihoods to ensure equity between development and society;
- ♣ Arrangements for ecological mitigations in cases where harm is inflicted upon the natural environment and biodiversity which may become detrimental and subsequently affect the society.

The constitution is the primary legislation which has pertinent provisions regarding the environment and social welfare of the people. However, the National Environmental Act (1995) is the principal law governing environmental management and conservation. Other acts, policies and supporting guidelines /regulations are also applicable. Some of these include:

- a. The Water Act, Cap 152, 1997;
- b. The Land Act Cap 227, 1998;
- c. The Water Resources Regulations, 1998;
- d. The Water (Waste Discharge) Regulations, 1998;
- e. The Environmental Impact Assessment Regulations, 1998;
- f. The National Environment (Waste Management) Regulations, 1999;
- g. The National Environment (Standards for Discharge of Effluent into water or on land) Regulations, 1999;
- h. The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, 2000.
- i. Draft Standards for Air Quality Management, 2007;
- j. The National Environment (Noise Standards and Control) Regulations, 2003;
- k. National Policy for the Conservation and Management of Wetland Resources, 1995;
- l. The National Environmental Management Policy, 1994;

On the other hand, some of the key legislations that govern social welfare issues include the following: Occupational Safety & Health Act, No. 9, 2006.

- ♣ Employment Act, No. 9, 2006
- ♣ Labour Disputes (Arbitration & Settlement) Act, No. 8, 2006
- ♣ The Equal Opportunities Commissions Act, 2007.
- ♣ Children's Act, Cap 59, 1997

- ♣ Persons with Disabilities Act, 2006
- ♣ Workers' Compensation Act, Cap 225, 2000
- ♣ Minimum Wages Advisory Boards and Wages Councils Act, Cap 221
- ♣ Uganda Cultural Centre Act, Cap 50
- ♣ Domestic Violence Act, 2010
- ♣ Public Health Act
- ♣ The Uganda National Employment Policy 2011
- ♣ Uganda Gender Policy
- ♣ National Youth Policy 2004
- ♣ The National HIV/AIDS and the World of Work Policy 2007
- ♣ The Uganda National Culture Policy (2006),
- ♣ Employment Regulations (2011)
- ♣ The Employment (Employment of Children) Regulations, 2012
- ♣ The Employment (Sexual Harassment) Regulations, 2012
- ♣ Guidelines for Labour Inspectors on the Identification of Hazardous child labour

## 7.5 World Bank Safeguard Policies

With regards to World Bank safeguard requirements, the following Operational Policies are triggered by the Project and will require precise attention by the implementing teams.

- a. Environmental Assessment (OP 4.01),
- b. Natural Habitats (OP 4.04),
- c. Forests (OP 4.36),
- d. Physical Cultural Resources (OP 4.11),
- e. Safety of Dams OP/BP 4.37,
- f. Involuntary Resettlement (OP 4.12),
- g. Projects on International Waterways (OP 7.50).

The World Bank Environmental Health and Safety Guidelines and the Industry Specific Water and Sanitation (and Waste Management Facilities) EHS Guidelines also apply to the project. Furthermore, the Bank has put in place a set of Environmental, Social, Health and Safety (ESHS) Enhancements for Standard Procurement Documents (SPDs) and Standard Bidding Documents (SBDs) which shall be applicable for all new works contracts for which the relevant SBD/SPD are used.

The implementation of the IWMDP shall be aligned to the provisions outlined in the aforementioned national and World Bank statutory framework. All the actors involved shall be trained on the basics of these legislations so that they can ultimately support the implementation of safeguard issues in the projects. Where national legislation falls short of meeting the conditions prescribed in World Bank policies, IWMDP will ensure that the World Bank policies are met without infringing on issues of national concern.

## 7.6 Institutional roles, linkages and responsibilities

The Project intends to utilize similar implementation arrangements set up for the ongoing WMDP. The Project shall be implemented by two agencies - MWE and NWSC under the oversight guidance of the Water Sector and Environment Sector Working Group and NWSC Board of Directors. The support of regional entities (WMZs, WSDFs), local governments, private sector and CSOs to deliver outputs shall be pursued. To facilitate integration and affirmation of roles, MOUs outlining specific mandates will be signed between the implementing agencies (MWE and NWSC) and local government entities for specific activities. The Project's institutional and implementation arrangements have been designed to align with existing structures, build on the comparative advantage and experience of the various departments in the Ministry & NWSC, enhance coordination and synergy across the different departments, and implement the principles of integrated water resources management across the water and environment sectors from the central to the local levels.

To enhance the implementation of safeguards, Environment and Social Development Specialists shall be recruited as part of the PST to offer professional technical guidance to MWE and NWSC and take charge of environmental and social issues in line with safeguards requirements. The Project will assign mainstream qualified safeguards staff as Focal Point Officers (FPOs) in each implementing entity (NWSC, DWRM, DWD-Urban & DWD-Rural) with a role of coordinating environmental and social safeguards in each component. Furthermore, each agency shall designate two staff (with Social & Environmental experience) at each project site to take charge of routine safeguard activities in each project; this team shall be working alongside the contractors' safeguard staff, the local government teams and NGO staff while getting guidance from the FPOs and PST. MoWE will assign/appoint on ministry staff as the overall Safeguards Coordinator (SC) to coordinate FPOs and work in collaboration with the PST safeguard staff to ensure comprehensive implementation of safeguards issues. The safeguards staff at each level will be responsible for reviewing and consolidating feedback on environmental and social aspects in each of the components and submit such reports to the PST Safeguard Specialists who shall then aggregate such reports for onward submission to the Bank

Several other agencies will play a key role (in line with their statutory mandates) to ensure that the management of environmental and social aspects are implemented effectively. These are listed in the table below (with their key mandates listed).

**Table 20: Stakeholder Safeguards Mandates**

No.	Key Mandates	Agency / Entity
1.	National Environmental Management Authority (NEMA)	<ul style="list-style-type: none"> <li>- Review and approval of ESIA reports and issuance certification</li> <li>- Coordinate and sanction Environment and Social Audits</li> <li>- Issue permits for pertinent undertakings in Lakes, Rivers, Wetlands and other ecosystems as mandated by Law.</li> <li>- Monitoring and supervision to ensure environmental compliance.</li> <li>- Review campsite ESMPs and issue clearance and necessary guidance especially on material extractions, waste disposal, biodiversity conservation and ecological sustainability.</li> <li>- Support in capacity building for safeguards teams</li> </ul>

No.	Key Mandates	Agency / Entity
2.	World Bank	<ul style="list-style-type: none"> <li>- Review and approve: Project Designs and Scopes; Solicitation Documents &amp; ToRs; ESAs, RAPs &amp; ESMPs; Workplans &amp; Budgets and PST Recruitments.</li> <li>- Review overall project implementation to ensure attainment of the PDO and target indicators.</li> <li>- Support in capacity building</li> <li>- Undertake routine monitoring and supervision to ensure compliance.</li> </ul>
3.	MoWE and NWSC <b>Key actors:</b> PST, Focal Persons, Contract Managers, Site-specific Safeguard Staff, DWD, DEA and DWRM.	<ul style="list-style-type: none"> <li>- Ensure preparation and implementation of the specific safeguards instruments as well as overall compliance to and enforcement of relevant national safeguards requirements.</li> <li>- Ensure adequate budget allocation and implementation of all safeguards activities – appraisals &amp; reviews; environmental mitigation costs; RAP implementation, Audits.</li> <li>- Support Capacity Building for implementing teams.</li> <li>- Support in community engagement – for both social and environmental issues for smooth implementation of the project.</li> <li>- Monitoring and reviews of project implementation (safeguards inclusive to ensure compliance)</li> <li>- Overall publicity and timely reporting of progress and any pertinent issues to key stakeholders.</li> <li>- Staff recruitment and assignment of duties to mainstream staff.</li> <li>- Prepare for the approval of WB: Workplans &amp; Budgets, procurement Plans, PST Recruitment Schedules and Solicitation Documents.</li> <li>- Enter into MoUs with DLGs participating in project implementation.</li> <li>- Procure and engage the contractors on project tasks – appraisals, designs, assessments, audits and evaluations (in consultation with the World Bank).</li> </ul>
4.	MGLSD	<ul style="list-style-type: none"> <li>- Fast-track the implementation of social safeguards in line with national guidelines</li> <li>- Support in capacity building for safeguards teams</li> <li>- Monitoring and supervision to ensure safeguards compliance.</li> <li>- Registration of workplaces</li> </ul>
5.	MLHUD (Especially Chief Government Valuer - CGV)	<ul style="list-style-type: none"> <li>- Review RAPs and approve property valuations for compensations of PAPs</li> <li>- Guide on discrepancies between claims and compensations</li> <li>- Monitoring land acquisition through the RAP and property valuation reports submitted to the CGV where fair and adequate compensation is stipulated; and Land Title requests and/or transfer of ownership submitted to the lands ministry.</li> </ul>
6.	Other MDAs	<ul style="list-style-type: none"> <li>- UWA will have the role of monitoring the implementation of the ESMPs to ensure that the provisions for mitigating the impacts across protected areas are implemented.</li> <li>- NFA will closely monitor the activities of the project across forested areas.</li> </ul>
7.	Local Governments (Districts, Municipalities and Sub-Counties) <b>Key            actors:</b> <i>Land Boards,            Lands staff,            Probation &amp; Social</i>	<ul style="list-style-type: none"> <li>- Participate in the designs of projects in line with LG development plans and priorities.</li> <li>- Participate in community mobilisation and disclosure of projects to the beneficiary communities.</li> <li>- Support the client and/or contractors to secure required local approvals.</li> <li>- Participate in conflict/grievance redress.</li> <li>- Ensure availability of land for project's infrastructure establishment.</li> </ul>



No.	Key Mandates	Agency / Entity
	<i>Welfare staff, Community Development staff, Environment Staff, LCs and Local Environment Committees.</i>	<ul style="list-style-type: none"> <li>- Participate in the process of identification and verification of PAPs and ensuring their compensation.</li> <li>- Collaborate with implementing teams to ensure environmental sustainability and implementation of mitigation measures.</li> <li>- Participate in project monitoring and reviews</li> <li>- Set rates for amenities that may be affected by the project in order to guide compensation of PAPs.</li> <li>- To participate in conserving the environment, restoring degraded areas, improve the natural environment, and to monitor &amp; report on any event or activity, which has or is likely to have a significant impact on the environment.</li> <li>- Work with MoWE &amp; NWSC to develop catchment management plans and improve the framework for decentralized management of natural resources</li> </ul>
8.	NGOs	<ul style="list-style-type: none"> <li>- Support in community mobilisation and sensitisation.</li> <li>- Support to ensure that safeguards related activities are implemented as envisioned.</li> </ul>
9.	<p><b>Private Sector:</b></p> <p>a. Consultants - construction design and supervisors</p> <p>b. ESIA, RAP &amp; Audits consultants</p> <p>c. Contractors</p>	<ul style="list-style-type: none"> <li>- Oversee the daily routine activity implementation (architectural and safeguards) by the contractor on behalf of the client.</li> <li>- Reporting on progress of work (architectural and safeguards).</li> <li>- To undertake design of projects with safeguards perspective in mind.</li> <li>- To undertake the ESIA, RAP and Audit processes and ensure preparation of the specific safeguards instruments</li> <li>- Ensure the preparation of Contractor's ESMPs</li> <li>- Implement construction works and ensure implementation of safeguard measures as prescribed.</li> </ul>
10.	The Community	<ul style="list-style-type: none"> <li>- Participate in project identification, planning, appraisals and studies</li> <li>- Participate in project reviews</li> <li>- Provide local materials and labour (skilled &amp; unskilled) during project implementation and operation.</li> <li>- Engage in constructive grievance redress where applicable</li> <li>- Participate in catchment based planning</li> </ul>

Figure 8: Organogram for safeguards implementation and feedback arrangements

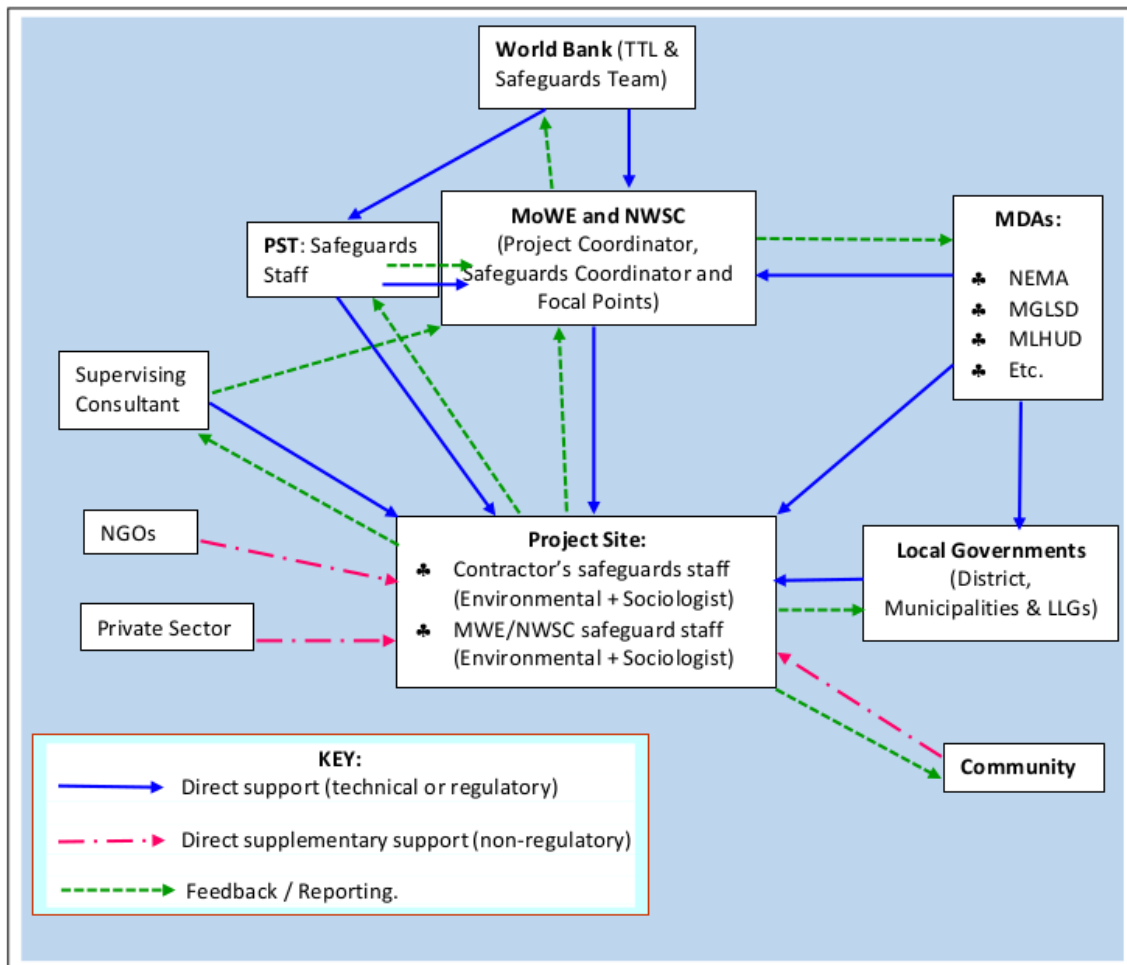
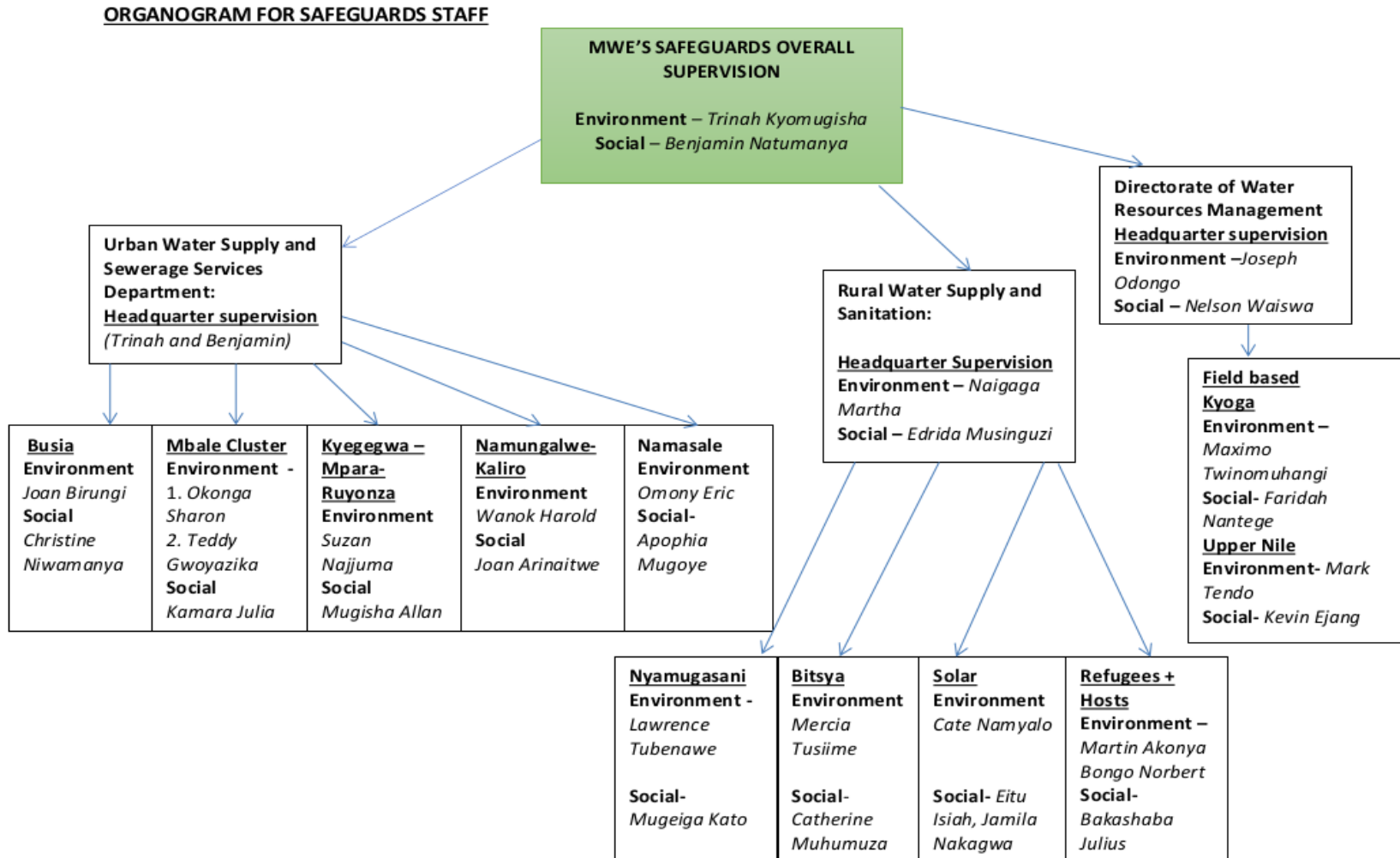


Figure 9: Organogram for Safeguards Staff



## 7.7 Key Safeguards activities and Budget Forecast:

Below is the proposed implementation budget for safeguards interventions once project implementation commences. The ESMP for each project shall outline the appropriate budget required to implement mitigation measures and these shall be incorporated into the main contract. These are provided for across different components; also for any shortfalls, can be handled using contingencies planned under all components.

Planned activity / Intervention	Responsible entity	Schedule	Estimated cost
<b>Environmental &amp; Social Safeguards studies, reviews and disclosure</b>			
i. Consultancy service for environmental and social impact assessments.	MWE / NWSC	2018-2020	\$412,000
ii. Consultancy service for environmental and social safeguards audits (external & client audit)	MWE / NWSC	2020-2023	\$310,000
iii. Press and public disclosure of ESIA's & RAPs	MWE / NWSC	2018-2020	\$15,000
<b>Sub-Total</b>			<b>\$737,000</b>
<b>Environmental &amp; Social safeguard monitoring, technical backstopping and verifications / certifications.</b>			
i. Monitoring & technical backstopping for RAP and ESMP implementing teams.	MWE / NWSC		\$600,000
ii. Coordinate & supervise ESIA's and Environmental Audits	MWE / NWSC		\$10,000
iii. Logistical support to MDAs (CGV, NEMA, MGLSD, DWRM), Local Governments etc. - approvals and certifications.	MWE / NWSC		\$11,000
iv. Resettlement support and socio-economic monitoring of PAPs	MWE / NWSC		\$12,000
<b>Sub-Total</b>			<b>\$633,000</b>
<b>Staff Training &amp; Capacity Development</b>			
i. Train staff from MWE & NWSC LGs, contractors and on safeguards.	MWE / NWSC/WB		\$395,000
ii. Tailor-made short capacity enhancement trainings for safeguards top-staff (PST, MWE & NWSC Safeguards Coordinators & Focal Persons).	MWE / NWSC/WB		\$105,000
<b>Sub-Total</b>			<b>\$500,000</b>
<b>Community engagements, establishment and empowerment of community structures.</b>			
i. Establish & train GRCs on documentation, resolution and reporting of grievances.	MWE / NWSC		\$45,000
ii. Participatory catchment management / source protection planning; <sup>5</sup> establishment & training of respective committees:	MWE / NWSC		\$55,000
iii. Revitalizing Sanitation Committees and support them to rally the public to support project activities and apply for connections.	MWE / NWSC		\$35,000
<b>Sub-Total</b>			<b>\$135,000</b>
<b>Documentation and Reporting</b>			

<sup>5</sup> Costs for catchment improvement and/or source protection shall be ascertained after the participatory planning process

i. Establish and maintain a database for pertinent safeguards issues from ecosystems impacted, PAPs, and other stakeholders.	MWE / NWSC/WB		\$3,000
ii. Collect & document results of RAP implementation – challenges & success stories of resettled PAPs	MWE / NWSC		\$8,000
iii. Prepare quarterly monitoring reports and share with relevant stakeholders / fora	MWE / NWSC		\$4,000
<b>Sub-Total</b>			<b>\$15,000</b>
<b>GRAND TOTAL</b>			<b>\$2,020,000</b>

## 7.8 Project Appraisals and reviews

### 7.8.1 ESIA Screening and Appraisal Process

Preliminary field studies/assessments shall be done using environmental and social screening forms to ascertain the right environmental category and level of assessment needed for each sub-project; this shall be done by the project Safeguards Specialist Team working alongside Focal Point Officers (FPO) in each department / entity. This shall inform MWE and NWSC whether to undertake mitigations through the preparation and implementation of Project Briefs (and associated ESMPs) developed after screening or to undertake detailed ESIA.

### 7.8.2 ESIA Preparation, Review, Approval and Disclosure

The preparation of ESIA and associated ESMPs shall follow the scientifically acceptable norms of:

- Project Screening; aimed at determining which of the project activities are likely to result in significant negative environmental and social effects, with a view to determine appropriate impact mitigation measures for such activities, and to ensure environmental sustainability of project activities undertaken during detailed ESIA study.
- Analysis & detailed studies; including field assessment & measurements, and stakeholder & public consultations in order to ensure that their vital interests are addressed and incorporated into the design and implementation of the projects.
- Preparation of ESIA report with corresponding ESMPs; the emphasis shall be documenting findings and mitigation procedures, and clarifying on procedures and responsibilities to be adopted by IWMDP implementing teams in line with the World Bank's environmental and social safeguard policies and the Ugandan EIA regulations and guidelines. The ESIA will identify and assess the potential environmental and social impacts of the planned activities, assess alternative solutions / mitigations in the ESMP accompanied by monitoring and reporting frameworks to be pursued during project implementation and operation.
- Review and client approval of ESIA; MWE / NWSC will review the ESIA/ESMPs, and will make recommendations as to whether the results of the screening process presented in the scoping reports or the final ESIA/ESMPs are acceptable. This is to ensure that all environmental and social impacts have been identified and effective mitigation measures proposed and incorporated in the ESIA and an ESMP with associated costs proposed.
- After the review of the ESIA, this shall be forwarded to the World Bank for clearance and to NEMA for final review and approval. If the ESIA is approved, NEMA issues the necessary environmental permit that confirms the ESIA has been satisfactorily completed and the project may proceed.

To ensure quality assurance of the ESIA's undertaken for the project, a review and approval of ToRs by the Bank and supervision of the ESIA consultants by the client shall be undertaken. The ESIA/ESMP and RAP review and approval process shall be carried out in parallel with the review and approval of the technical designs; economic & financial analysis; and other preliminary aspects of the projects. To avert conflict of interest and ensure prudence, the firm engaged in the preparation of technical designs for a project shall not be involved in conducting ESIA &/or RAP for the same project.

Investments planned for refugee hosting districts shall be subjected to studies/assessments that will culminate into the preparation of ESIA's and RAPs to cater for cases of land uptake and compensation for loss of property and livelihoods. These studies shall involve community participation where they shall be consulted on matters pertaining to the planned investments, ecological characteristics of the areas targeted and their socio-economic conditions. Once the locations for investments in refugee hosting districts are determined, detailed designs shall be prepared. In this processes, beneficiary surveys shall be conducted and baseline information established for several factors which shall be basis for evaluating the results of the project investment in the area.

To enhance mitigation of undesirable impacts, contractors shall be required (as contractual obligation) to develop and implement a construction/contractor's ESMP, that covers among other aspects, the original project ESMP, auxiliary facilities such as Labour Camps, Equipment Storage Yard, etc. The contractor's ESMPs shall contain site-specific mitigation measures. The Contractor's auxiliary facilities shall also be subjected to statutory approvals (e.g. ESMP approval by NEMA, registration of workplace by MGLSD, etc.) and shall be supervised and supported by the client or client's representative. Contractors shall be required to undertake environmental and social due diligence of materials supply sources (stones, sand, murrum), to ensure acquisition of such materials from compliant facilities. Effective implementation of ESMPs will ensure that the appropriate mitigation measures shall be undertaken to avoid and/or minimize any potential social and environmental impacts resulting from the proposed project activities.

ESIA disclosure for public review shall be made at a place accessible to local people (e.g. through a local government office, public libraries and websites of participating District Local Governments, MWE, NWSC, WB and NEMA) in a form, manner, and language they can understand. Simplified excerpts of the documents shall also be disclosed through public feed-back fora at the locations where community consultations were made to ensure that there is wide access and acclimatisation of project issues by the public.

### 7.8.3 Roles during appraisals and reviews:

These keystone roles shall be undertaken by the responsible stakeholders as mandated by law. Most notably to be involved are: World Bank, NEMA, Project Safeguards Staff, Focal Point Officer in each component, MWE Directorates (DEA, DWD & DWRM), NWSC, District & Municipal Staff (Environment & Community Development), NFA, UWA, MGLSD, Independent Consultants, Contractors and Supervision Consultants.

To ensure proper implementation of the ESMPs, MWE and NWSC will provide budget lines for implementation of the required mitigation measures. Actions that will be implemented by the Contractors shall be included in the respective bidding documents and Contracts and subsequently expounded in the Contractors' ESMPs. Those that shall be implemented by MWE/NWSC/Local Governments shall equally be included in Annual Work-plans and Budgets, and accordingly implemented, monitored and reported upon. The MWE shall put in place coordination arrangements to closely work with NEMA, other MDAs and D/MEOs on the supervision of the ESMPs implementation within the overall plan for the project. RAP Preparation and Implementation Process.

Once specific projects sites are identified, a census of the affected persons shall be undertaken and a RAP developed - containing the detailed status of the amenities to be affected by the project. The RAPs shall provide details for compensation of all the eligible PAPs based on their losses (including physical assets or income sources affected within a set and communicated cut-off-date). The RAPs shall be prepared in accordance with the National and World Bank requirements. The RAP process shall also be participatory with the participation of the affected public and other relevant stakeholders. MWE and NWSC working alongside LGs and other relevant stakeholders to implement the RAPs shall work in collaboration with the Chief Government Valuer.

The PAPs shall be compensated in accordance with the Valuation Reports approved by the Chief Government Valuer before project works start or as shall be mutually agreed with the consent of the developer, the PAPs and LGs. For activities involving land acquisition or loss, denial or restriction to access of resources, provisions shall be made, for compensation or other assistance required for relocation, prior to displacement. In the event of relocation or loss of shelter, measures to assist PAPs (provision and preparation of resettlement sites with adequate facilities and relocation costs) shall be provided to PAPs by the Project Planning Team. The schedule for the implementation of activities, as agreed between the Project Planning Team and PAPs must include: target dates for start and completion of civil works; and dates of possession of land that PAPs shall be currently using.

The following PAP categories shall be eligible for compensation:

- a. People who have been in the surveyed part of the proposed foot prints of the sub-projects; landlords owning land affected by the proposed sub-projects; and all persons who have formal legal rights to land or assets
- b. People whose structures are to be affected by the developments;
- c. People who use and/or rent land for cultivation whose livelihoods including crops, trees and other identified amenities are to be removed or damaged due to land acquisition activities.
- d. All persons who do not have formal legal rights to land or assets, but have a claim to land or assets that is recognized or recognizable under the national law.
- e. Persons who have no recognizable legal rights or claim to the land or assets they occupy.

#### 7.8.4 Livelihood Restoration and compensation issues.

Livelihood restoration is critical to the success of the project because PAPs may have a difficulty to achieve their livelihood aspirations if not engaged in participatory planning and identification of their alternative needs at the time of assessment and these may turn out to be saboteurs. Livelihood

planning should be based on appropriate feasible solutions and technical advice from government entities, CSOs and local consultants. The livelihood programs should be designed in consultation with PAPs, district and Municipal officials, CSOs and interested parties within the project affected areas. A participatory approach should be used for needs assessments and where feasible, livelihood programs shall be aligned with relevant existing national, district and municipal programs.

## 7.9 Stakeholder Consultations and Disclosure of Pertinent Information.

Stakeholder engagement shall be promoted and undertaken throughout the project cycle in order to support the development of strong, constructive and responsive relationships that are important for successful management of established infrastructure, and environmental & social risks. Stakeholder consultations shall be carried out at district, municipality, sub-county and at the local communities to inform them about the scope of planned projects, associated impacts (positive and negative) and how these shall be addressed.

Disclosure of results of studies (socio-economic surveys, ESIA's and RAPs) shall be made to stakeholders at all levels in a manner and language which they can understand. The proponent shall also disclose the ESIA's and RAPs on its website, print media, public libraries and all districts where projects shall be implemented. The World Bank's shall also disclose the ESIA's and RAPs on its *Infoshop* for the attention of Bank stakeholders.

## 7.10 Criteria for acquisition and operation of auxiliary facilities

Auxiliary facilities shall mainly be required by contractors engaged in the construction of water supply and sanitation infrastructure. These facilities mainly include Workers' Camp with associated amenities, and Equipment, Material & Hydrocarbon Storage Yards. The contractor shall take lead in the process of acquiring sites for these facilities; the client and local government leaders shall support the process of site acquisition. The financial resources required shall be incorporated in the Contract Costs. Acquisition of these facilities should however take the following into consideration: suitability of the site for such facilities; social and environmental factors associated with the sites; proximity to the planned infrastructure and costs of site acquisition. The site should not have any encumbrances.

## 7.11 Annual Reviews and Periodic Audits

Reporting should entail documentation of mid-term and end term RAP evaluation and ESMP implementation process; these reports shall be shared with the World Bank.

### 7.11.1 Project Environmental and Social Audits:

An independently commissioned environmental and social audit of project activities shall be carried out periodically (between 12 – 36 months) depending on the level of implementation of the specific projects. The audit team will report to NEMA, the MoWE, the NWSC and the World Bank, who will lead the implementation of any corrective measures that shall be identified. The audit seeks to ensure that: the ESIA's/ESMPs and RAP processes are implemented appropriately; and mitigation measures are being identified and implemented prudently. The audit shall be able to identify any modifications in the ESMPs required to improve effectiveness.

The audit will verify results of ESIA's/ESMPs and RAP implementation, and assess whether the project achieved the environmental mitigation and community livelihood restoration or enhancement



objectives and whether resettlement entitlements were appropriate. The audit will also assess the efficiency, effectiveness, impact, and sustainability of RAP activities. The aim is to learn lessons for application to future projects in the sector and in other WB interventions in the country.

### 7.12 Capacity Building and Training

IWMDP shall involve utilizing the existing institutional structures and capacity within the MWE and NWSC to implement the Project. For successful implementation of safeguards issues, it is important to ensure that staff and other stakeholders who play a role in implementing the ESMF and RPF are provided with appropriate and continuous environmental and social safeguards capacity development through tailored trainings for effective delivery of safeguards

Funds allocated to Component 4 (Project Implementation & Sector Support) shall be used to provide technical assistance to support the capacity development needs of the implementing agencies to ensure effective implementation of safeguard measures throughout the project lifetime. The main role of the Environmental Specialist (ES) and Social Development Specialist (SDS) are to provide technical advice and support on environmental and social management and mitigation planning across all the implementing entities at MWE and NWSC to ensure that the ESMF is fully implemented.

The safeguards capacity building shall cover select staff from MWE/NWSC, Local Governments, Contractors, Consultants, participating CSOs and community. The participation of Bank, NEMA, MGLSD and MLHUD in the delivery of these training needs shall be pursued. Where necessary, Consultants with relevant experience in the proposed topics and familiarity with the water sector can be engaged to deliver trainings. The trainings shall be convened on National, Regional or District level depending on the number of participants to be engaged in each training session. Refresher courses should be held as needed during the course of the project lifecycle. The training shall focus on safeguards issues both in the project construction and operational phase.

#### 7.12.1 Training Areas of Focus.

The training will cover pertinent safeguards areas of specific interest, including but not limited to: Relevant World Bank and National Safeguard Policies; Roles of key stakeholders in the implementation of environmental and social safeguards; Effective monitoring and Reporting for environmental and social safeguards; Health and Safety Management (both Occupational and Community Safety), Development & Implementation of Contractor's ESMP, management and use of Auxiliary Facilities (Labour Camps, Equipment Storage Yard), Construction materials acquisition – environmental and social due diligence, Labour influx management and use of Code of Conduct, Child abuse/defilement, Grievance Redress Management, and so on. Detailed content to be covered during the training shall be developed based on the capacity assessment of the targeted participants.

Tailor-made short capacity enhancement trainings for safeguards top-implementing staff (PST safeguards staff, MWE and NWSC Safeguards Coordinators and Focal Persons) organised in-country or by Training Institutions abroad. The focus is on the following areas: Unlocking the World Bank Safeguard Policies and other World Bank safeguards guidelines; Approaches for Conflict-Sensitive Natural Resource Management; Effective Management of Environmental and Social Risks in Construction Projects; Meaningful Stakeholder Consultation and Engagement in Infrastructure Projects; Understanding the concept of Cumulative Impact Assessment; Achieving Effective Involuntary Resettlement and Occupational Safety and Health among others.

The training costs shall be established in the course of project implementation after establishing the scope of content to be covered; number & duration of training sessions to be held; and the number of participants to be involved. These costs shall be embedded in the overall implementation budget for the project.

### 7.13 Safeguards Monitoring, Evaluation and Reporting Mechanisms:

Monitoring and Evaluation (M&E) expeditions to assess overall success and effectiveness of various safeguards activities shall be undertaken by the Proponent - MWE and NWSC, the World Bank Country Office and other key stakeholders.

Monitoring & Supervision of the ESMPs and RAPs implementation is designed to:

- a. Determine whether the project is being carried out in conformity with environmental and social safeguards and legal requirements;
- b. Identify problems as they arise during implementation and recommend means to resolve them;
- c. Recommend changes in project concept/design as appropriate, as the project progresses or as circumstances change; and
- d. Identify the key risks to project sustainability and recommend appropriate risk management strategies and mitigations to the proponent.

Reports of safeguards monitoring shall be prepared by the client safeguards teams (PST, SC and FPOs) on quarterly basis and these shall be shared with the Bank, within the client during routine project review meetings, project supervision missions and also shared with other relevant MDAs.

#### 7.13.1 Monitoring approach, indicators and stakeholders involved:

The safeguards staff in the PST, SC and FPOs and relevant local government staff shall undertake the monitoring exercises monthly & quarterly; or in frequencies stipulated in the project implementation schedule; or as need arises depending on the urgency and sensitivity of activities being implemented.

The PST, SC and FPOs shall collaborate with Directorates; MWE regional offices; respective Local Governments (Districts, Municipalities, Sub-Counties and Town Councils); NGOs and the public to monitor the implementation of environmental and social mitigations based on the project ESMPs and Contractor's work-plans and site-specific ESMPs. On annual basis the NWSC and MWE in collaboration with NEMA (through the Department of Environmental Monitoring and Compliance); MGLSD and other MDAs based on issues linked to their mandates will carry out a joint national assessment of project performance in environment & natural resource management and social compliance as part of the project's overall monitoring program.

The teams shall pursue corrective measures as required and certify that measures identified in the ESMPs and RAPs are being implemented. A safeguards supervision plan shall be developed with clear objectives to ensure successful implementation of ESMPs and RAPs. A number of indicators outlined in the ESMF and RPF shall be included in the overall project safeguards monitoring checklists as outlined in Annex 5

### 7.14 Grievance Redress Mechanism (GRM)

The Grievance Redress Mechanism (GRM) is meant to provide an effective platform for expression of concerns and achieving remedies for communities which could work to the detriment of the community in case there were no proper redress mechanisms. MWE and NWSC working in collaboration with LGs, CSOs and communities shall establish GRM for each project to promote mutually constructive relationships and enhance the achievement of project objectives. This shall be done in line with the guidance provided in the ESMF and RPF. Experience has proved that open dialogue and collaborative grievance resolution in projects to manage social and environmental risk and advance project and community development objectives yields outcomes that are mutually acceptable to all the parties involved. The Grievance Redress Committee (GRC) shall have clear goals and objectives; and a well-defined scope for operation (geographical area coverage) to ensure its accessibility and effectiveness.

It is proposed that there shall be a National Grievance Redress Committee (NGRC) consisting of MWE/NWSC Chair, IWMDP Project Coordinator, Social Development Specialist, Environment Specialist, Environmental Coordinator, a member of a recognized Non-Government Organization, and a community leader. GRCs shall also be established at District/Municipality level; Sub-County/Division level and at Community level covering project implementation sites as deemed appropriate. GRCs shall mainly be formed for Component 1 and Component 2 which have considerable infrastructure developments. PST safeguards staff and mainstream safeguards staff from MWE and NWSC shall work with community leaders in the project area to set up a Community-Level Grievance Redress Committee (to be chaired either by LC1 Chairperson or as shall be agreed but with the LC1 being part of the committee) as the first point where grievances are addressed. The Community-Level Grievance Redress Committee informs and consults with the Sub-County or District GRC to determine validity of claims and seek technical guidance especially on contentious issues. Unresolved and contentious issues shall be forwarded to the Sub-County or District for action. Depending on the nature and the severity of the complaint/s, the GRC in consultation with the Project Affected Persons (PAPs) or complainant, shall identify and decide on an approach for grievance resolution. Where appropriate, complainants shall be given the choice of selecting an affordable approach with which they are comfortable and confident and that is beneficial to them. Copies of the complaint shall be sent to MWE and NWSC project offices, within 20 days after mediation (be it resolved or unresolved) for further action. However, all attempts shall be made to settle grievances amicably as a way of enhancing harmony in the community before resorting to higher GRC levels or courts of law.

A generic Grievance Log that summarize all grievances registered, resolution reached, and feedback provided shall be designed and established at each project site. Procedures for grievance/ complaints handling shall also be prepared and availed to the GRCs; these shall also outline the main types of grievances anticipated in the project. However, on a general perspective, the procedures shall include:

- a. Receiving, recording &/or registering, and sorting grievances;
- b. Conducting an initial assessment of grievances;
- c. Referring grievances to appropriate entities / authorities or persons;
- d. Making accurate and consistent decisions and determining the resolution process;
- e. Directing grievances to relevant agencies responsible for implementing decisions;
- f. Notifying complainants and other affected parties of eligibility, resolution process, & outcomes;

- g. Tracking, monitoring, documentation, and evaluation of grievances.

For projects with infrastructure where construction-related complaints can be numerous, managing these shall be the contractor's responsibility but with the implementing agency (client) having a stake through its staff located at each project site. The contractor shall establish own GRC to handle complaints related to environmental and social issues onsite. Most of these shall be linked to pollution (dust, fumes, noise etc.); flooding & soil erosion; blasting (noise, vibration, evacuation); impeded access; harm to workers; internal disagreements involving workers; poor quality/quantity of consumables (meals, drinking water, etc.); damage to property and crops; workforce misdemeanour to the community (defilement, child abuse, elopements, non-payment of community-supplied local goods); unsatisfactory working conditions (inadequacy of PPEs, First Aid etc.) and dissatisfaction with the wage (amount and frequency of payment).

The Project Safeguards Staff, FPOs, Districts DEOs & CDOs/PSWO, Contractors and Local Leaders shall be responsible for monitoring the processes and outcomes of the GRM. Key duties shall include:

- a. Maintaining a database and records of all complaints related to environmental and social issues, including minutes of discussions, recommendations and resolutions made;
- b. Assisting the PAPs to submit their social & environment-related complaints directly to the contractor;
- c. Maintaining a list of PAPs who are directly or indirectly affected by construction, operations, and maintenance work, and monitoring the implementation of mitigation plans;
- d. Consulting affected PAPs and communities and participating in grievance resolution processes;
- e. Ensuring that compensation for PAPs complies with the entitlement matrix in respect of resettlement and land acquisition.

#### 7.14.1 The World Bank's Grievance Redress Service (GRS)

The GRS is the World Bank's easy way to provide PAPs and communities an avenue to bring their complaints directly to the attention of Bank Management for issues that cannot be resolved at the project level. The GRS undertakes the following functions within defined time frame:

- a. Receives complaints from stakeholders
- b. Evaluates and determines their eligibility and category
- c. Refers complaints to appropriate Task Teams/Managers
- d. Follows up with Task Teams to ensure complaints are resolved
- e. Refers PAPs to the Borrower or other parties where appropriate.

Complaints may be submitted to the GRS by one or more individuals, or their representatives, who believe they are adversely affected directly by an active Bank-supported operation (IDA). A complaint may be submitted in writing in the English or local language. Complaints are accepted as email, fax, letter mails, or hand deliveries to the GRS at the World Bank Headquarters in Washington or World Bank Country Offices; the channels /contacts are listed below:

♣ Email: [grievances@worldbank.org](mailto:grievances@worldbank.org)

♣ Fax: +1-202-614-7313

- ♣ By letter mail to:  
The World Bank  
Grievance Redress Service (GRS)  
MSN MC 10-1018  
1818 H St NW  
Washington, DC 20433, USA
  
- ♣ World Bank Uganda Country Office;  
Rwenzori House, Plo1, Lumumba Avenue  
P.O. Box 4463, Kampala  
**Phone:** +256 312 221416  
+256 414 302200

The complaint must clearly state the adverse impact(s) allegedly caused or likely to be caused by the Bank supported operation. This should be supported by available documentation and correspondence where possible and as appropriate. The complainant may also indicate the desired outcome of the complaint, i.e. how it may be resolved. The complaint should have the identity of complainants or assigned representative(s), address and contact details.

### 7.15 Chance Finds Procedure (CFP):

- ♣ In case there is risk of damaging cultural property and artefacts, measures shall be taken to establish what is known about the cultural property at the project site with full field reconnaissance surveys undertaken by a specialist and appropriate actions undertaken. Once confirmed, artefacts shall be handled by specialised teams to avoid any damage and ensure subsequent custody at designated places. The Chance Finds Procedure shall be executed as follows;
  - a) Teams shall be asked to stop any construction activities in the area of the “chance find” and the area (site) delineated with clear devices warning and deterring access by the public and workforce.
  - b) The construction supervising Engineer and supervising Consultant shall be notified of the “chance find” who should immediately notify the local government authorities.
  - c) The “chance find” site shall be secured by way of providing a night guard to safeguard the site and objects therein until the responsible authorities take over the site; this is to prevent any damage or loss of removable objects of concern.
  - d) Contact and notification shall be established with the Department of Monuments and Museum in the Ministry of Tourism, Wildlife and Heritage who shall be expected to take charge of protecting and preserving the site and objects of concern; and subsequently decide and carry out proper procedures for managing the “chance find”.
  - e) The project implementing teams (contractor and consultant) shall offer all the required support to the authorities handling “chance find” until when the site is satisfactorily cleared.
  - f) The construction work can be resumed after the authorities handling “chance find” issues instructions to do so.

To enhance the management of physical cultural resources and to complement the CFP outlined above, it shall be prudent that during community engagement meetings conducted during project implementation, matters relating to physical cultural resources should be discussed and community

input sought. Issues relating to CFP should also be communicated to the workforce in a special session with reminders made during routine Tool Box talks.

### 7.16 Other probable documents to be prepared (where applicable)

Depending on the findings of environmental and social screening process, the location of the projects and as deemed necessary, the following additional guiding plans (in addition to the ESIA/ESMP and RAP) may have to be prepared alongside or as an integrated part of the ESIA/ESMP:

- ♣ **Physical Cultural Resources (PCR) Management Plan:** This shall cover an inventory of PCRs, and measures for: mitigation of identified adverse impacts; and strengthening institutional capacity to handle PCRs. Monitoring systems to track progress of PCR activities shall be integrated into the ESMP.
- ♣ **Dam Safety Measures:** Any issues involving small dams shall be aimed at preventing soil erosion and enhance flood protection. Provisions in the existing Small Dam Guidelines prepared for Uganda, and the FAO Manual on Small Earth Dams shall be used to ensure adherence to generic dam safety measures.

## Chapter 8: MONITORING AND EVALUATION

### 8.1 Introduction

The Monitoring and Evaluation function of the Project shall be the responsibility of both MWE and NWSC. The two IAs will lead in setting up systems for data collection, analysis and reporting. A simplified one-stop M&E system will be developed and implemented as part of the Project to support implementation, data management, reporting and learning. Monitoring and reporting will focus on key performance data from specific Project activities that contribute to the Project's outputs and intermediate results and PDO-level outcomes. Progress reports will be submitted on a quarterly basis by the MWE to the Bank and shared with all relevant stakeholders.

M&E function in the project draws upon lessons from WMDP to have in place more robust and simplified system that better track progress and capture results over the lifetime of the project. WMDP has been a source of learning by carrying out M&E at MWE, NWSC and contractor levels. Key lessons learned from WMDP on M&E indicate that: (i) the fundamental complexities of M&E coordination involving different players with varying capacities and levels of commitment, particularly within components and contractor level, can be challenging and requires sustained capacity building and greater clarity in the roles and responsibilities of front-line implementers; (ii) the timeliness in availability of operational funds is also critical to maintaining regular data collection schedules and building a stronger evidence base on project data; and (iii) responsibility for reporting should be clearly defined with a focus on timelines, quality and reliability to enable project management to make evidence-based decisions.

### 8.2 Key Objectives

The overall objective of the M&E function is to provide timely and quality information to Project Management and other stakeholders on the progress towards meeting the Project Development Objective, and the challenges and lessons learnt during implementation of the Project.

Specifically, the M&E function will provide information for informed decision making in:

- (a) Planning and implementing Project activities according to design modalities;
- (b) Optimum allocation and use of financial and other resources;
- (c) Roll out of procurement plans;
- (d) Selection of appropriate implementation methods; and
- (e) Capacity building for effective Project results tracking, reporting.

### 8.3 Methodology

The Project will employ the following M&E methods and tools:

- (a) Results framework;
- (b) Comprehensive M&E plan;
- (c) Internal and External periodic assessments and evaluations; and

- (d) Participatory Community Monitoring and Evaluation approaches involving multi-sectoral stakeholders.

The M&E system will be supported by planned Water Information System (WIS) that is being designed to ensure effective availability of sector wide information and tracking of progress in Project implementation at all levels. The Contractors/ consultants will coordinate the M&E function at the sub project level, while the IAs will be responsible for the coordination of M&E at the National level.

## 8.4 Results Framework

**Table 21: Results Framework**

### Project Development Objective Indicators

Indicator Name	Unit of Measure	Baseline	End Target
Direct Project Beneficiaries	Number	0	1,403,000
of which female	%age	0	51
of which Refugees	%age	0	7
People provided with access to improved water sources under the project	Number	0	1,151,862
of which female	Number	0	587,450
of which Refugees	Number	0	98,886
of which in host communities	Number	0	173,212
People provided with access to improved sanitation under the project	Number	0	294,489
of which female	Number	0	150,189
of which refugees	Number	0	21,087
of which in host communities	Number	0	47,136
Area under integrated water resources management and development in selected catchments supported by the project	Ha	0	47,209
Percent of the service areas achieve cost recovery ratio of 1.1 under the project	Percentage	38	80



### Intermediate Results Indicators

Indicator Name	Unit of Measure	Baseline	End Target
Piped household water connections (constructed or rehabilitated) resulting from the project interventions	Number	0	88,129
Improved community water points (constructed or (rehabilitated) under the project.	Number	0	7,780
% of water and sanitation committees with women in key position in project areas	Percentage	84	95
People within 200m (0.2 km) of an improved water source benefitted in refugees hosting districts	Percentage	0	70
Of which females	Percentage	0	51
New sewerage connections resulting from the project interventions	Number	0	384
Volume of BOD pollution loads removed by treatment plants as result of project interventions (Tons per year	Number	221	352
Number of service areas that reduce NRW to 20% under the project	Number	3	10
Customer satisfaction Index for services supported under the project	Percentage	0	85
Catchment and source protection plans developed	Number	5	16
State of water resources reports produced to inform decision making	Number	0	3
National Water information systems established and operationalized under the project.	Number	0	1
Selected service providers achieve > 80 percent in collection efficiency under the project	Number	3	6

### 8.5 Project Results Monitoring and Evaluation Plan

Table 27

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
<b>PDO Level Indicators</b>							
Direct Project beneficiaries (number), of which female (%) and refugees (%)	Beneficiaries are people or groups who directly receive benefits from interventions of the project (water supply, sanitation, and WRM related investments)	<ul style="list-style-type: none"> <li>– Baseline survey</li> <li>– Project M&amp;E system,</li> <li>– Project performance reports,</li> <li>– Refugee Database,</li> <li>– Feasibility Study Reports,</li> <li>– Annual water and environments sector performance report.</li> </ul>	<ul style="list-style-type: none"> <li>– Structured/ semi structured</li> <li>Quantitative and Qualitative Data Tools</li> <li>– FGD</li> <li>– Project Records</li> </ul>	<ul style="list-style-type: none"> <li>– Semi-Annual</li> <li>– Annual</li> </ul>	<ul style="list-style-type: none"> <li>– DWD</li> <li>– DWRM</li> <li>– NWSC</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>– Management decision making,</li> <li>– Progress Reporting</li> <li>– Reviews</li> <li>– Evaluation</li> <li>– Completion Reporting</li> <li>– Accountability</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> </ul>
People provided with access to improved water source by the Project (number), of which female (number), refugees (number,) and citizens in host communities (number)	These are number of people benefitting from improved water supply services that have been constructed or rehabilitated under the project. These include; piped household connection (house or yard connections), public standpipe, boreholes, protected dug well,	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- NWSC Area performance reports and records,</li> <li>- Refugees GIS Mapping for WASH and UPMiS,</li> <li>- Routine Project Progress reports,</li> </ul>	<ul style="list-style-type: none"> <li>– GIS Mapping</li> <li>– Structured/ Semi structured</li> <li>Quantitative Tools</li> <li>– FGDs</li> <li>– Surveys</li> </ul>	<ul style="list-style-type: none"> <li>– Bi annually</li> <li>– Annually</li> </ul>	<ul style="list-style-type: none"> <li>– NWSC</li> <li>– UWSD</li> <li>– RWSSD</li> <li>– IWMDP</li> <li>PST (M&amp;E)</li> </ul>	<ul style="list-style-type: none"> <li>– Learning</li> <li>– Reporting</li> <li>– Reviews</li> <li>– Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> </ul>

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
	protected spring and rainwater collection only.	- Annual Water and Environments Sector Performance Report.					
People provided with access to improved sanitation by the Project (number), of which female (number), refugees (number), and citizens in host communities (number)	Number of people benefitting from improved sanitation facilities that have been constructed or rehabilitated under the project, including: pit latrine with slab, ventilated improved pit (VIP) latrine, composting toilet, and flush or pour-flush toilet/latrine to piped sewer system and septic tank, and fecal sludge treatment plants. It also includes shared sanitation facilities built in institutions and public places.	- Project M&E system, - NWSC Area performance reports and records, - Refugees GIS Mapping for WASH and UPMiS, - Project Progress Reports, - Annual Water and Environments Sector Performance Report.	- Survey, - GIS Mapping, - Structured/ Semi structured Quantitative Tools, - FGDs - Surveys	- Bi annually - Annually	- NWSC - UWSD - RWSSD - DWRM - IWMDP PST (M&E)	- Learning - Reporting - Reviews - Evaluation	- MWE - NWSC - GoU - WB - Other DPs

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
Area under integrated water resources management in selected catchments supported by the project ( Ha)	Area is referred to the land under integrate water management measures. Areas include but not limited to farms, river banks, catchments / micro catchments, intakes, etc. Measures include soil and water conservation, flood protection, afforestation, and livelihood improvement schemes as per agreed in CMPs.	<ul style="list-style-type: none"> <li>– National Water Information System database,</li> <li>– GIS Mapping</li> <li>– Project M&amp;E system</li> <li>– Project progress reports</li> <li>– Annual Water &amp; Environment Sector Reports.</li> </ul>	<ul style="list-style-type: none"> <li>– Questionnaire</li> <li>– GIS Mapping</li> <li>– Structured/ Semi structured Quantitative Tools</li> <li>– Site visits</li> </ul>	<ul style="list-style-type: none"> <li>– Bi annually</li> <li>– Annually</li> </ul>	<ul style="list-style-type: none"> <li>– NWSC</li> <li>– DWRM</li> <li>– UWSD</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>– Management decision making,</li> <li>– Progress Reporting</li> <li>– Reviews</li> <li>– Evaluation</li> <li>– Learning</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> <li>– Districts/ Municipalities</li> </ul>
Percent of the service areas achieve cost recovery ratio of 1.1 under the project	Cost recovery ratio is the revenues collected over operating expenses for water service providers at the national and local levels under the project.	<ul style="list-style-type: none"> <li>– MWE M&amp;E system, NWSC Accounting System (SCALA), Refugee Database and UPMiS,</li> <li>– Project Progress and Annual Reports, Annual Water and Environments Sector Performance Report.</li> </ul>	<ul style="list-style-type: none"> <li>– Questionnaire</li> <li>– Structured/ Semi structured Quantitative Tools</li> <li>– Operator Records</li> </ul>	<ul style="list-style-type: none"> <li>– Bi annually</li> <li>– Annually</li> </ul>	<ul style="list-style-type: none"> <li>– RWSSD/ UO</li> <li>– UWSD</li> <li>– NWSC</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>– Management decision making,</li> <li>– Progress Reporting</li> <li>– Reviews</li> <li>– Evaluation</li> <li>– Learning</li> <li>– Accountability</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> <li>– Participating Districts/ Municipality</li> </ul>
<b>Intermediate Results</b>							

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
Piped household water connections (constructed or rehabilitated) resulting from the project interventions (Number)	Piped household water connection is defined as a connection that provides piped water to the consumer through either a house or yard connection. It does not include, inter alia, standpipes, protected well, borehole, protected spring, piped water provided through tanker trucks, or vendors, unprotected wells, unprotected spring, rivers, ponds and other surface water bodies, or bottled water.	<ul style="list-style-type: none"> <li>– Project M&amp;E system,</li> <li>– NWSC Area performance and Annual reports,</li> <li>– Refugee Database,</li> <li>– GIS Mapping for WASH and UPMiS,</li> <li>– Project progress reports,</li> <li>– Annual Water and Environments Sector Performance Report,</li> <li>– Feasibility Studies,</li> <li>– Consultant Records</li> </ul>	<ul style="list-style-type: none"> <li>– Site visits</li> <li>– GIS Mapping</li> <li>– Structured/ Semi structured Quantitative Tools</li> <li>– FGDs</li> <li>– Observation</li> </ul>	<ul style="list-style-type: none"> <li>– Quarterly</li> <li>– Bi-annually</li> <li>– Annually</li> </ul>	<ul style="list-style-type: none"> <li>– RWSSD/ UO</li> <li>– UWSD</li> <li>– NWSC</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>– Documenting results,</li> <li>– Progress Reporting</li> <li>– Reviews</li> <li>– Evaluation</li> <li>– Learning</li> <li>– Accountability</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> <li>– Participating Districts/ Municipality</li> <li>– Beneficiaries</li> </ul>
Improved community water points (constructed or rehabilitated) under the project (Number).	A community water point is defined as a public outlet for the provision of water supply to a number of households. Improved community water points refer to standpipes, protected dug well, borehole, or protected spring.	<ul style="list-style-type: none"> <li>– Project M&amp;E system,</li> <li>– Refugee Database,</li> <li>– GIS Mapping for WASH and UPMiS,</li> <li>– Project progress reports,</li> <li>– Annual Water and Environments Sector Performance Report,</li> </ul>	<ul style="list-style-type: none"> <li>– Site visits</li> <li>– GIS Mapping</li> <li>– Structured/ Semi structured Quantitative Tools</li> <li>– FGDs</li> <li>– Observation</li> </ul>	<ul style="list-style-type: none"> <li>– Quarterly</li> <li>– Bi-annually</li> <li>– Annually</li> </ul>	<ul style="list-style-type: none"> <li>– RWSSD/ UO</li> <li>– RGCs</li> <li>– UWSD</li> <li>– NWSC</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>– Documenting results,</li> <li>– Progress Reporting</li> <li>– Reviews</li> <li>– Evaluation</li> <li>– Learning</li> <li>– Accountability</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> <li>– Participating Districts/ Municipality</li> <li>– Beneficiaries</li> </ul>

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
		<ul style="list-style-type: none"> <li>- Feasibility Studies,</li> <li>- Consultant Records</li> </ul>					
% of water and sanitations committees with women in key position in project areas	Women holding at least one key position in water user committees for influencing or making decisions on WSS related matters. The key positions are: Chairperson, Vice Chairperson, Secretary and Treasurer.	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- Refugee Database and UPMiS,</li> <li>- Project progress reports,</li> <li>- Annual water and environments sector performance report,</li> <li>- NWSC annual report.</li> </ul>	<ul style="list-style-type: none"> <li>- Site Visits</li> <li>- Structured/ Semi structured Quantitative Tools</li> <li>- FGDs</li> <li>- Community Records</li> </ul>	<ul style="list-style-type: none"> <li>- Quarterly</li> <li>- Bi-annually</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- RWSSD/ UO</li> <li>- RGCs</li> <li>- UWSD</li> <li>- NWSC</li> <li>- DWRM</li> <li>- PST</li> </ul>	<ul style="list-style-type: none"> <li>- Management decision making,</li> <li>- Progress Reporting</li> <li>- Reviews</li> <li>- Evaluation</li> <li>- Learning</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> <li>- Other DPs</li> <li>- Participating Districts/ Municipality</li> <li>- Community</li> </ul>
<p>People within 200m (0.2 km) of an improved water source benefitted in refugees hosting districts</p> <p>Of which women</p>	Percent of refugees and citizens in host communities that have an improved water source within 200m of walking distance	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- Refugee Database,</li> <li>- Mapping for WASH,</li> <li>- Water Supply Atlas, and UPMiS,</li> <li>- Project progress reports,</li> <li>- Annual Water &amp; Environments Sector performance report,</li> <li>- NWSC annual report.</li> </ul>	<ul style="list-style-type: none"> <li>- Site visits/ Case study</li> <li>- GIS Mapping</li> <li>- Structured/ Semi structured Quantitative Tools</li> <li>- Interviews</li> <li>- FGDs</li> <li>- Observation</li> </ul>	<ul style="list-style-type: none"> <li>- Quarterly</li> <li>- Bi-annually</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- RWSSD/ UO</li> <li>- RGCs</li> <li>- UWSD</li> <li>- NWSC</li> <li>- DWRM</li> <li>- PST</li> </ul>	<ul style="list-style-type: none"> <li>- Management decision making,</li> <li>- Progress Reporting</li> <li>- Reviews</li> <li>- Evaluation</li> <li>- Learning</li> <li>- Accountability</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> <li>- Other DPs</li> <li>- Participating Districts/ Municipality</li> <li>- Beneficiaries</li> </ul>

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
New sewerage connections resulting from the project interventions	Number of new sewer connections resulted from the project	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- NWSC performance report,</li> <li>- NWSC annual report,</li> <li>- Project Progress Reports,</li> <li>- Feasibility study report</li> </ul>	<ul style="list-style-type: none"> <li>- Structured/ Semi structured Quantitative Tools</li> <li>- Interviews</li> <li>- FGDs</li> <li>- Observation</li> </ul>	<ul style="list-style-type: none"> <li>- Bi annually</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- NWSC</li> </ul>	<ul style="list-style-type: none"> <li>- Management decision making,</li> <li>- Progress Reporting,</li> <li>- Reviews,</li> <li>- Evaluation,</li> <li>- Learning,</li> <li>- Accountability</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> <li>- Other DPs</li> <li>- Participating Districts/ Municipality</li> <li>- Community</li> </ul>
Volume of BOD pollution loads removed by treatment plants as result of project interventions (Tons per year)	<ul style="list-style-type: none"> <li>- This indicator measures the cumulative volume (mass) of Biological Oxygen Demand (BOD) pollution loads removed by the treatment plant supported under the project. Project support may include construction, expansion or rehabilitation of the treatment plant.</li> </ul>	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- NWSC performance report,</li> <li>- NWSC annual report,</li> <li>- Project Progress Reports,</li> <li>- Feasibility study report</li> </ul>	<ul style="list-style-type: none"> <li>- Structured/ Semi structured Quantitative Tools</li> <li>- Questionnaire</li> <li>- Observation</li> </ul>	<ul style="list-style-type: none"> <li>- Bi annually</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- NWSC</li> </ul>	<ul style="list-style-type: none"> <li>- Management decision making,</li> <li>- Progress Reporting,</li> <li>- Reviews,</li> <li>- Evaluation,</li> <li>- Learning,</li> <li>- Accountability</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> <li>- Other DPs</li> <li>- Participating Districts/ Municipality</li> <li>- Community</li> </ul>

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
Number of service areas that reduce NRW to 20% under the project	– NRW is defined as the percentage of water produced that is not ultimately billed to consumers. Water not billed to consumers results from water losses (physical and commercial losses) as well as authorized consumption that are not billed.	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- Refugee Database,</li> <li>- Mapping for WASH,</li> <li>- Water Supply Atlas, and UPMiS,</li> <li>- Project progress reports,</li> <li>- Annual Water &amp; Environments Sector performance report,</li> <li>- NWSC annual report.</li> </ul>	<ul style="list-style-type: none"> <li>–Site visits/ Case study</li> <li>–GIS Mapping</li> <li>–Structured/ Semi structured Quantitative Tools</li> <li>–Questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>–Quarterly</li> <li>–Bi-annually</li> <li>–Annually</li> </ul>	<ul style="list-style-type: none"> <li>–RWSSD/ UO</li> <li>–UWSD</li> <li>– NWSC</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>–Management decision making,</li> <li>–Progress Reporting</li> <li>–Reviews</li> <li>–Evaluation</li> <li>–Learning</li> <li>–Accountability</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> <li>– Participating Districts/ Municipality</li> <li>– Beneficiaries</li> </ul>
Selected service providers achieve > 80 percent in collection efficiency under the project	– Number of the service providers that achieve 80 percent or greater in collection efficiency. Collection efficiency is revenue collected over billed for the selected water service providers at the national and local levels under the project.	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- Water supply and utility database,</li> <li>- Mapping for WASH,</li> <li>- Water Supply Atlas, and UPMiS,</li> <li>- Project progress reports,</li> <li>- Annual Water &amp; Environments Sector performance report,</li> <li>- NWSC annual report.</li> </ul>	<ul style="list-style-type: none"> <li>–Site visits</li> <li>–GIS Mapping</li> <li>–Structured/ Semi structured Quantitative Tools</li> <li>–Questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>–Quarterly</li> <li>–Bi-annually</li> <li>–Annually</li> </ul>	<ul style="list-style-type: none"> <li>–RWSSD/ UO</li> <li>–UWSD</li> <li>– NWSC</li> <li>– PST</li> </ul>	<ul style="list-style-type: none"> <li>–Management decision making,</li> <li>–Progress Reporting</li> <li>–Reviews</li> <li>–Evaluation</li> <li>–Learning</li> <li>–Accountability</li> </ul>	<ul style="list-style-type: none"> <li>– MWE</li> <li>– NWSC</li> <li>– GoU</li> <li>– WB</li> <li>– Other DPs</li> <li>– Participating Districts/ Municipality</li> <li>– Beneficiaries</li> </ul>



Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
Customer satisfaction Index for services supported under the project	Percentage of surveyed customer/citizen that are satisfied with the services.	<ul style="list-style-type: none"> <li>- Project M&amp;E system,</li> <li>- Mapping for WASH,</li> <li>- Project progress reports,</li> <li>- Annual Water &amp; Environments Sector performance report,</li> <li>- NWSC annual report.</li> </ul>	<ul style="list-style-type: none"> <li>-Site visits/ Case study</li> <li>-Structured/ Semi structured Quantitative and Qualitative Interviews</li> <li>-FGDs</li> <li>-Observation</li> </ul>	-Annually	<ul style="list-style-type: none"> <li>-RWSSD/ UO</li> <li>-UWSD</li> <li>- NWSC</li> <li>- DWRM</li> <li>- PST</li> </ul>	<ul style="list-style-type: none"> <li>-Management decision making,</li> <li>-Progress Reporting</li> <li>-Reviews</li> <li>-Evaluation</li> <li>-Learning</li> <li>-Accountability</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> <li>- Public</li> <li>- Participating Districts/ Municipality</li> <li>- Beneficiaries</li> </ul>
Catchment and source protection plans developed	Plans developed to enhance catchment management and source protection measures (e.g., soil and water conservation, river banks protection and restoration, etc.) in the selected water management zones.	<ul style="list-style-type: none"> <li>- Project M&amp;E System,</li> <li>- Project Progress Reports,</li> <li>- Annual Water and Environment Sector Performance reports,</li> <li>- Water supply databases.</li> </ul>	<ul style="list-style-type: none"> <li>- Case study</li> <li>- Structured Quantitative Interviews</li> <li>- Observation</li> </ul>	-Annually	<ul style="list-style-type: none"> <li>- DWRM</li> <li>- RWSSD/ RGCs</li> </ul>	<ul style="list-style-type: none"> <li>-Management decision making,</li> <li>-Progress Reporting</li> <li>-Reviews</li> <li>-Learning</li> <li>-Accountability</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> <li>- Other DPs</li> <li>- Participating Districts/ Municipality</li> <li>- Community</li> </ul>
State of water resources reports produced to inform decision making	Number of State of water resources management reports developed to inform decision making	<ul style="list-style-type: none"> <li>- Project M&amp;E System,</li> <li>- Project Progress Reports,</li> </ul>	<ul style="list-style-type: none"> <li>- Observation</li> <li>- Interviews</li> <li>- Survey</li> </ul>	-Every two years	<ul style="list-style-type: none"> <li>- DWRM</li> </ul>	<ul style="list-style-type: none"> <li>-Management decision making,</li> <li>-Reviews</li> </ul>	<ul style="list-style-type: none"> <li>- MWE</li> <li>- NWSC</li> <li>- GoU</li> <li>- WB</li> </ul>

Performance Indicator	Indicator Definition and Unit of Measurement	Data Source	Method of Data Collection/ Calculation	Data Collection		Use and Reporting	
				When	Who	Why	Who
		- Annual Water and Environment Sector Performance reports.				- Learning - Accountability	- Other DPs - Public
National Water information systems established and operationalized under the project.	National water information systems established to track water data. Operationalized is defined as the systems are functional for data collection, monitoring and reporting.	- Project M&E System, - Project Progress Reports, - Annual Water and Environment Sector Performance reports, - Water Supply Atlas.	- MWE/DWRM progress reports, annual Water & environment sector performance report and.	- Bi annually - Annually	- DWRM	- Documenting project results, - Reviews - Learning - Accountability	- MWE - GoU - WB - Other DPs - Public

## 8.6 Project Reporting, Review and Learning Arrangement

This section sets out the internal and external reporting and information requirements for the project, which will allow the following:

1. Analysing the results of project operations (physical) and the financial position on a periodic basis to improve project performance.
2. Making effective decisions on the allocation of resources.
3. Monitoring performance and managing project operations.
4. Independent reviews (through commissioning of internal and external audits).
5. Reporting performance to development partners and other stakeholders.
6. Developing a learning platform of lessons that can be applied in the development of policies and plans for future operations.

Reporting will be undertaken on the basis of the performance indicators / results framework described above, and will track implementation against timescales and targets, as well as resource use against budgets. The review process of the project will be carried out jointly by IDA and GOU. Performance will be measured on the basis of Annual Work Plans and key results areas as established in this implementation manual. The quarterly and annual reports will form the basis for review of the project.

All agencies involved in implementation of the project will participate in the process of data collection, compilation, analysis and use. The PST's Monitoring and Evaluation Specialist will have overall responsibility for collating and presenting this information in results monitoring/implementation progress reports to be prepared regularly by each of the directorates involved in implementation, as well as by NWSC. Formats for such reports will be aligned with those used for the SWAp to ensure that each implementing agency will also use these regular monitoring and evaluation reports for internal and broader sector reporting (e.g. as part of the quarterly reports prepared by the sector and presented to the sector working group), planning, decision-making and supervision.

In order to strengthen monitoring of outcomes and results at both the Project and institutional levels, the monitoring system will: (i) be coordinated by the PST's M&E Specialist who is responsible for collating information from all entities for quarterly and annual progress reporting. The M&E Specialist will liaise with the MWE Planning, Monitoring and Evaluation Department to ensure that results feed into and inform sector wide reporting; and (ii) consist of data collected and managed by each implementing agency through the designated focal point who will gather and collate this information for their respective component/ sub-component.

Specific M&E activities that will be undertaken as a result of the M&E Plan, as well as summarizing time frames and main actors is as described in Table below.

**Table 27: M&E Implementation Activities**

<b>M&amp;E Event</b>	<b>Purpose and Description</b>	<b>Main Actors</b>	<b>Timeframe</b>
Quarterly Reports	The report provides a summary of the physical progress in program implementation, with an explanation of variances from implementation targets. Procurement and disbursement information for the preceding quarter and projections for the following six months will be consolidated in the quarterly reports.	PMT at MWE and NWSC, PST, District Teams, Consultants, WB	By 15 <sup>th</sup> of second month after reporting quarter
Annual project status / progress reports	Annual reports will clearly describe and assess each component's progress against its overall objectives and established work plans as well as provide an aggregate view of the project as a whole.	PMT at MWE and NWSC, PST, District Teams, Consultants, WB	By 30 <sup>th</sup> of Sept (3 months after end of FY)
Development of one-stop M&E system	Develop and operationalize a comprehensive strategy for collating, tracking and reporting project processes and results. This shall include developing data collection tools/templates, simplified Excel based data management and Analysis templates and uniform reporting formats.	WESLD, PST (M&ES)	July 2019
Surveys / Studies	Collecting data to be used to assess progress, e.g. Value for Money audit, Beneficiary Assessment to determine level of customer satisfaction, Refugee assessment, etc.	PMT, PST, Consultant	Annually or as appropriate
Performance monitoring and Routine operational data collection	Tracking and collecting data to be used at operational and evaluative level to guide day-to-day decision-making as well as to be used for review and evaluation as necessary	PMT at MWE and NWSC, PST, District Teams, Consultants, WB	As appropriate, monthly and quarterly
Progress Reviews	Key pieces of evaluative and operational research that can also be part of stand-alone Evaluations. Provides summary information on successes and challenges, progress to date, identification of lessons learned; and information to guide performance improvement and adjustment.	MWE and NWSC PMT, PST, WB	Monthly, Bi-annually, Annually

Midterm Evaluation	Assess expected and achieved results. A midterm Evaluation be a rigorous piece of research that will be undertaken to measure progress in implementation viz-a-viz design and make recommendations for the remaining period	MWE and NWSC PMT, External Evaluator	2022
End of project Evaluations	This will determine the relevance, impact, effectiveness, efficiency and sustainability of the interventions of IWMDP. An appropriate methodology to be applied.	External Evaluator, PMT	2025
Capacity de-velopment	Develop skills, knowledge, aptitudes and attitudes regarding M&E activities and systems among Implementers and key Stakeholders.	PST, WB	Continuous
Environmental and Social Safeguards (ESS) Monitoring:	These are process information which not directly feed into the RF, but relevant for measuring progress of the process and compliance with Environment and social safeguards.	PMT, PST, MWE and NWSC Safeguards Officers, Consultants, Contractors	Continuous
Implementation completion Reporting	GoU will prepare a Project Completion Report and IDA will prepare an Implementation Completion Report (ICR) at the close of the project to assess overall performance, discuss lessons learned for future application.	PMT at MWE and NWSC, PST, District Teams, Consultants, Contractors, WB	2025

## Annexes

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### Annex 1: Procurement Plan for First 18 Months –IWMDP

N	Contract Title, Description	Comp	Estimated Cost (USD)	Proc. Category	Selection Method	Procurement Approach / competition	Bank Review Requirement	Expected date of EOI/RFB	Expected date of contract	Bid doc/ TOR prepared (Yes/No)
1	Works for Construction of Busia Municipality Water Supply and Sanitation/Facilities System, Source Protection Measures and Sanitation Facilities in Kumi-Nyero-Ngora	1.1	10,366,641	Works	RFB	Open – International	Prior	Nov 2018	June 2019	Yes
2	Works for Construction of <b>Lot 1</b> :Namungalwe-Kaliro Water Supply and Sanitation System <b>Lot 2</b> : Kyegegwa-Mpara-Ruyonza water Supply and Sanitation & Source Protection Measures and Sanitation facilities in Rukungiri <b>Lot 3</b> : Namasale Water Supply System and Sanitation & Source Protection Measures and Sanitation Facilities in Koboko	1.1	15,124,462	Works	RFB	Open – International	Prior	Feb 2020	Sep 2020	No
3	Consultancy Services for Construction Supervision of Water Supply and Sanitation	1.1	1,010,000	Consultancy	QCBS	Open – International	Prior	Nov 2018	June 2019	No

	Systems in Namsale, Namungalwe-Kaliro, Kyegegwa-Mpara-Ruyonza, Source Protection Measures in Namasale and Kyegegwa-Mpara-Ruyonza water supply and sanitation systems and Sanitation Facilities in Koboko, Rukungiri and Ngora-Nyero-Kumi									
4	Consultancy Services for Construction Supervision of Water Supply and Sanitation Systems in Busia	1.1	490,000	Consultancy	QCBS	Open – National	Post	Nov 2018	June 2019	No
5	Consultancy Services for Hygiene Education and Sanitation Promotion	1.1	200,000	Consultancy	CQS	Open – National	Post	Oct 2018	Mar 2019	No
6	Supply and Installation of under the Umbrella Authorities;  <b>Lot 1:</b> Pipes and Fittings (150,000m)  <b>Lot 2:</b> 500 Bulk and 30,000 domestic meters	1.1	1,869,000	Goods	RFB	Open – International	Prior	Feb 2019	July 2019	No
7	Construction of Water Supply and Sanitation system  Lot 1: Nyamugasani  Lot 2: Bitsya	1.2	10,916,000	Works	RFB	Open – International	Prior	Dec 2018	Mar 2019	No

8	<p>Construction of Large Solar Powered Piped Water Systems (16 No)</p> <p>Lot 1-Midwestern Uganda (Kagadi, Kakumiro, Kyegegwa, Kyenjojo)</p> <p>Lot 2-Western Uganda (Kisoro and Kiruhura)</p> <p>Lot 3-Eastern Uganda (Buyende, Jinja, Namutumba and Kamuli)</p>	1.2	18,906,286	Works	RFB	Open – International	Prior	March 2019	June 2019	No
9	Consultancy Services for Construction Supervision of Nyamugasani GFS and Bitsya water supply and sanitation system	1.2	1,044,000	Consultancy	QCBS	Open – International	Prior	Dec 2018	Mar 2019	No
10	Consultancy Services for Construction Supervision for Large Solar Piped Water and Sanitation Systems	1.2	750,000	Consultancy	QCBS	Open – International	Prior	Jan 2019	Mar 2019	No
11	Consultancy Services for Community mobilization and Capacity Building, Social, Environmental, Sanitation and Hygiene Promotion Campaigns including district	1.2	1,820,000	Consultancy	QCBS	Open – International	Prior	Nov 2018	March 2019	No



	<p>stakeholder engagements, design and production of ICE materials and formation and training of community and school health clubs for:</p> <p><b>Lot 1:</b> Nyamugasani and Bitsya water supply and sanitation systems.</p> <p><b>Lot 2:</b> Solar Powered Piped Water and Sanitation Systems.</p>									
<b>12</b>	<p>Preparation of Resettlement Action Plans for the 16 large solar powered water supply systems</p>	1.2	100,000	Consultancy	CQS	Open - national	Post	Dec 2018	Mar 2019	N
<b>13</b>	<p>Construction supervision of water supply and sanitation infrastructure for:</p> <p><b>Lot 1:</b> Mbale Municipality.</p> <p><b>Lot 2:</b> Butaleja, Busolwe, Budaka, Kadama, Tirinyi and Kibuku.</p>	2	3,463,717	Consultancy	QCBS	Open – International	Prior	May 2018	Nov 2018	No
<b>14</b>	<p>Works for water supply and sanitation infrastructure for:</p> <p><b>Lot 1:</b> Mbale Municipality</p>	2	54,464,285	Works	RFB	Open – International	Prior	Feb 2019	Sep 2019	Yes

	<b>Lot 2:</b> Butaleja, Busolwe, Budaka, Kadama, Tirinyi and Kibuku.									
<b>15</b>	Works for Construction of Gulu IPILC - Water Supply and Sanitation Project	2	28,750,000	Works	RFB	Open– International	Prior	Nov 2018	May 2019	No
<b>16</b>	Construction supervision of Adjumani –I - Pakele Water Supply and Sanitation Project	2	1,800,000	Consultancy	Direct	Direct	Prior	Mar 2018	Nov 2018	Yes
<b>17</b>	Works for Construction of Adjumani –I - Pakele Water Supply and Sanitation Project	2	15,834,095	Works	RFB	Open – International	Prior	Nov 2018	June 2019	No
<b>18</b>	Full scale source protection plans/measures for Arua	2	1,837,649	Works	RFB	Open – National	Post	Jan 2019	June 2019	No
<b>19</b>	Full scale source protection plans/measures for Bushenyi	2	782,630	Works	RFB	Open – National	Post	Jan 2019	June 2019	No
<b>20</b>	Preparation of 4 Catchment Management Plans; Nyamugasani & Kafu in Albert WMZ and Sezibwa & Okweng in Kyoga WMZ	3	5,700,000	Consultancy	QCBS	Open– International	Prior	Oct 2018	Jun 2019	Yes
<b>21</b>	Preparation of Albert WMZ Water Resources Strategy and Action Plan	3	1,500,000	Consultancy	QCBS	Open - International	Prior	Oct 2018	Jun 2019	

										Yes
<b>22</b>	Implementation of priority WRM measures in: Lot 1: Lwakhakha sub-catchment, Lot 2: Aswa II sub-catchment Lot 3: Kochi sub-catchment Lot 4: Middle Awoja sub-catchment	3	9,094,000	Non-Consultancy	RFB	Open–National	Prior	Feb 2019	Aug 2019	No
<b>23</b>	Renovation and Expansion of the NWQRL at Entebbe	3	800,000	Works	RFB	Open National	Post	Oct 2018	Aug 2019	No
<b>24</b>	Roll out of Water Information System in Victoria, Upper Nile and Albertine WMZ	3	2,500,000	Goods	RFB	Direct Selection <sup>6</sup>	Post	Oct 2018	Jun 2019	Yes
<b>25</b>	Establishment of 17 monitoring stations	3	1,736,000	Goods	RFB	Open - International	Post	Oct 2018	Jun 2019	Yes
<b>26</b>	Consultancy Services for quantification of the available groundwater and assessment of sustainability of groundwater development	3	2,000,000	Consultancy	QCBS	Open - International	Prior	Feb 2019	Aug 2019	No

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<sup>6</sup> Direct Selection is subject to submission and approval of the Justification

27	Procurement of Individual Consultant- <b>Financial Management Specialist 1No</b>	4	600,000	IC	SIC	Direct Selection	Prior	Aug 2018	Jan 2019	Yes
28	Procurement of Individual Consultant- <b>Procurement Specialist 1No</b>	4	472,000	IC	SIC	Open - National	Prior	Aug 2018	Jan 2019	Yes
29	Procurement of Individual Consultant- <b>Monitoring and Evaluation Specialist 1No</b>	4	472,000	IC	SIC	Direct Selection	Prior	Aug 2018	Jan 2019	Yes
33	Procurement of Individual Consultant- <b>Environmental Management Specialist 1No</b>	4	472,000	IC	SIC	Open National	Prior	Aug 2018	Jan 2019	Yes
34	Procurement of Individual Consultant- <b>Project Technical Officer 1No</b>	4	472,000	IC	SIC	Open National	Prior	Aug 2018	Jan 2019	Yes
35	Procurement of Individual Consultant - <b>Assistant Procurement Specialist 1No</b>	4	315,000	IC	SIC	Direct Selection	Prior	Aug 2018	Jan 2019	Yes
36	Procurement of Project Vehicles- Pickup trucks- 11No.	4	635,400	Goods	RFB	Open - National	Post	Oct 2018	Jan 2019	No
37	Procurement of IT equipment for PST team (Laptops 6No, Printer/Scanner 1No and Desktops 3No.	4	22,0370	Goods	RFQ	National Shopping	Post	Oct 2018	Jan 2019	No

## Annex 2: 12 Steps of Implementation Arrangement

### Software implementation steps



Software Steps 2012 final booklet.pdf

## Annex 3: Environmental and Social Safeguards Supervision and Monitoring Checklist.

<b>A: ONE-TIME ASSESSED / VERIFIED INDICATORS</b>			
	Issue	Status (C / NC / NA)*	Recommended action / Comment
<b>1.</b>	<b>Mandatory accomplishments, approvals and certifications for Social and Environmental compliance.</b>		
1.1.	ESIA/Project Brief completed.		
1.2.	ESIA/Project Brief approved by NEMA		
1.3.	RAP completed, Valuation Report approved by CGV and disseminated.		
1.4.	Permits for storage of hydrocarbons secured from NEMA		
1.5.	Water abstraction permit applied for and issued by DWRM.		
1.6.	Waste (Effluent) discharge permit applied and issued by DWRM.		
1.7.	Wetland /River use permit applied for and issued by NEMA		
1.8.	Workplace registered by MGLSD		
<b>2.</b>	<b>Mandatory operational policies and work plans for Social and Environmental compliance.</b>		
2.1.	Occupational, Health & Safety Policy/Plan in place.		
2.2.	Contractor's ESMP developed		
2.3.	Waste Management Plan in place:		
2.4.	Traffic Management Plan in place		
2.5.	Catchment Management/Source Protection Plans prepared in partnership with LGs & Community.		
2.6.	Fire management plan in place.		
2.7.	HIV/AIDS management plan in place.		
2.8.	Sexual harassment policy in place.		
2.9.	Disaster-preparedness & emergency response plan to enable detection & timely response in place.		
2.10.	Approval of infrastructure plans for Auxiliary Facilities and Material Extractions by NEMA/LGs		
2.11.	A decommissioning plan for Auxiliary Facilities to be implemented upon project completion.		

C Compliant      NC Non-Compliant      NA Not Applicable

<b>B: ROUTINELY ASSESSED / VERIFIED INDICATORS</b>			
<b>1.</b>	<b>Environmental Parameters</b>		
1.1.	ESIA/Project Brief Certificate of Approval displayed in contractor's office		
1.2.	Waste Management facilities in place: garbage bins; sorting of wastes, approval of localized waste disposal by LGs.		
1.3.	Noise kept within acceptable limits		
1.4.	Generators fitted with silencers; well-maintained to minimize on emissions (also other equipment).		
1.5.	No SMOKING signage posted in project area		
1.6.	Schedules of wetting processes / dust management on M/V routes		
1.7.	Restoration of burrow pits and excavated soils during digging of trenches, foundations etc.		
1.8.	Restoration of vegetation on-site & off-site (trees + grass) and routine management of planted trees / prospects of planting at institutions.		
1.9.	Any impact on Fauna and Flora and what action was taken?		
1.10.	Soil erosion controls / measures to control storm run-offs and flooding established		
<b>2.</b>	<b>Health and Safety Parameters</b>		
2.1.	Appropriate Personal Protective Equipment (PPE) for workers provided:		
	Personal Protective Equipment (PPE) for visitors		
2.2.	Fully functional Sick Bay in place		
2.3.	Adequately stocked First Aid Box – in all active sites		
2.4.	Sick bay run by a qualified medical practitioner (minimum qualification of a nurse)		
2.5.	Well aerated examination/treatment room with adequate furniture and basic equipment		
2.6.	Well-furnished and aerated patient's resting room		
2.7.	Clear records of patients' medical history (treatment and First Aid) maintained.		
2.8.	Fully functional ambulance service		
2.9.	Workers & communities sensitized on HIV/AIDS.		
2.10.	Presence of IEC materials on HIV/AIDS		
2.11.	Presence of a condom dispenser on site		
2.12.	HIV/AIDS progress reports in place		
2.13.	Training in fire management/fire drills undertaken		
2.14.	Fire extinguishers/hydrants available on site:		
2.15.	Fire assembly point and escape routes clearly marked and understood by site workers/visitors.		
2.16.	Fire emergency contact numbers clearly displayed		
2.17.	Presence of clear road signage		
2.18.	Flagmen to guide traffic		
2.19.	Use of drivers trained in defensive driving and with valid driving permits		
2.20.	Accident log in place		
2.21.	Safety training undertaken for workers		

2.22.	Presence of warning tapes in areas of high risk		
2.23.	Tool box talks - Toolbox meeting records		
2.24.	Presence of Env'tal Health & Safety Officer on site		
<b>3.</b>	<b>Social welfare Parameters (including worker's welfare)</b>		
3.1.	Presence of a Social Development Officer on site:		
3.2.	Completion of compensations and resettlement assistance for all PAPs as per the RAPs.		
3.3.	Employment contracts signed with workers; See appointment letters (filed & confirm with workers)		
3.4.	Employees issued with employment cards with days worked clearly marked:		
3.5.	Evidence of insurance cover for workers		
3.6.	Portable safe drinking water available for workers		
3.7.	Adequately built and secure worker's camp:		
3.8.	Well ventilated accommodation facilities		
3.9.	Clear separation between men and women accommodation within camp premises		
3.10.	Provision for separate accommodation for the married and unmarried workers		
3.11.	Provision of toilets and bathrooms (clearly separated for men and women)		
3.12.	Workers' camp adequately secured with appropriate fence and guarded by well-trained security personnel from registered company		
3.13.	Worker's complaints register in place.		
3.14.	Presence of suggestion box for workers.		
3.15.	Mechanism for handling feedback for workers' complaints in place & functional.		
3.16.	Presence of workers leader (under immunity) to follow-up complaints.		
3.17.	Complaints raised by community members with respect to on-going project activities properly documented with corresponding actions taken		
3.18.	Evidence of feedback made to the community regarding actions taken on any complaints raised		
3.19.	Community engagement plans in place		
3.20.	Evidence of community reach out activities		
3.21.	Community engagement progress reports in place		
<b>4.</b>	<b>Overall project progress</b>		
4.1.	Project Management records on safeguards in place and kept active: <i>PPE Issuance Register, workers' payments &amp; remittances of mandatory deductions, Land agreements for Auxiliary Facilities, Management Team list displayed with contacts.</i>		
4.2.	Endorsed copies of monthly progress reports		
4.3.	Endorsed copies of annual reports		
4.4.	District officials involved in safeguards monitoring.		
4.5.	Record of other issues mitigated		

**Annex 4: Institutional arrangements for component 4**

It's envisaged that, the proposed project shall adopt the current PST setup which consists of the existing staff as listed below.

No	Position / Proposed Staff	Core roles and responsibilities
	Overall Project Coordinator (Eng. Disan Ssozi - Commissioner - WESLD)	Overall project coordination and communication across the Directorates/Components and responsible entities Support the establishment of a Project Support Team (PST) and empower the PST to offer technical support and specialized tasks to the different components. Oversee the consolidation of plans, budgets, monitoring results. Coordinate the compilation of reports and dissemination of outputs to relevant stakeholders. Coordinate the Project Implementation Planning and Review Missions Oversee the capacity building and retooling arrangements for the project implementing teams. Coordinate internal value for money audits and institute several management checks and balances, including use of results monitoring framework, disclosure of relevant information, and promotion of social accountability.
	Financial Management Specialist (TBA)	Develop financial plans and budgets in line with the project objectives Oversee the disbursement of funds/payment processes Ensure adherence to financial policies/processes of the credit
	Assistant Financial Management Specialist - (TBA)	Monitor and Track Financial Expenditure/Transactions Report routinely on the project's financial performance Identify and support Capacity Building output areas and guide how these can be accomplished.
	Procurement Specialist (TBA)	Ensure timely preparation review, update and submission of the procurement plans and monitor its implementation Prepare and update the Procurement/Contract register Ensure timely implementation of the procurement process in line with the procurement plan for timely acquisition of goods, works and services. Ensure that the guidelines of the World Bank are observed and adhered to Report on the project's procurement performance
	Asst. Procurement Specialist – (TBA)	Play coordination role between all stakeholders Participate in the preparation of bidding documents including ToRs, Expression of Interests, Request for Quotation and Request for proposals. Participate in the evaluation of bids and proposals.



		<p>In liaison with the user departments and PDU, prepare and make submissions to the Contracts Committee.</p> <p>Participate in contract monitoring and administration in liaison with technical departments and advice accordingly.</p> <p>Maintain complete procurement files and records and all correspondence related to procurement.</p>
	Monitoring & Evaluation Specialist – (TBA)	<p>Develop and implement a Monitoring &amp; Evaluation (M&amp;E) system for the project – design, data collection systems, M&amp;E tools, systems and processes</p> <p>Undertaking data analysis and reporting for all relevant Result Indicators against set objectives.</p> <p>Coordinate the work from all implementing agencies in liaison with the component managers</p> <p>Ensuring good internal communication of the progress and impact of the program M&amp;E system</p> <p>Analyze, develop and present M&amp; E Reports - generate data in an agreed reporting format to donors and key stakeholders</p> <p>Capacity Building - provide technical input into other programmes where M&amp;E expertise is of relevance</p>
	Environmental and Social Safeguard Specialist (TBA)	<p>Ensure compliance of the project's activities with environment requirements – review Environmental &amp; Social Management Plans and Resettlement Action Plans and proposing options;</p> <p>Monitor and report on compliance with environmental safeguards and identify and propose mitigation options for the risks during project implementation</p> <p>Supervise, track and recommend actions in regard to project activities on environmental compliance –</p> <p>Coordinate and supervise the conduct of Environment &amp; Social Impact Assessments and Environmental Audits;</p> <p>Undertake field inspections and support the supervision of Environment &amp; Social Management Plans (ESMPs) implementation;</p> <p>Preparing monitoring plans to address stakeholder and mission comments and recommendations regarding environmental safeguards</p> <p>Establish and maintain effective relationship; and work closely with authorities and bodies responsible for social and environmental issues.</p> <p>Capacity building for the project stakeholders on sound environmental management and sustainability.</p>

**Annex 5: Proposed Institutional frame work & Staff deployment for each of the components**

**1.1 Small Towns Water and Sanitation and Rural Growth centres**

COMPONENT 1: WSS IN SMALL TOWNS AND RGCS AND SUPPORT TO DISTRICTS	OUTPUTS/ACTIVITIES	INSTITUTION Directorate of Water Development (DWD)	KEY STAKEHOLDERS DISTRICT LOCAL GOVTS	OTHER INSTITUTIONS/ CIVIL SOCIETY
Subcomponent 1.1: Support to Small Town and Rural Growth Centers	Coordination & execution Project Supervision Provide technical back-stopping Monitoring project activities Compilation of work plans & budgets Compilation of procurement plans Compilation of quarterly, interim & annual status/progress reports Coordinate the procurement of service providers for the various aspects of the component in liaison with the relevant Contract Managers and WSDFs. Provide strategic guidance in implementation of component activities	Eng Herbert Nuwamanya – (Component Manager) Eng Emmex Turyatunga- Senior Engineer - Catherine Agwai Angwec – Senior Engineer Trinah Kyomugisha – Senior Environmental Health Officer Benjamin Natumanya – Senior Sociologist	Namasale, Busia, Tirinyi-Kibuku-Budaka- Kadama-Butaleja- Busolwe, Namungalwe-Kaliro, Kyegegwa-Mpara- Ruyonza, Ngora, Koboko, Rukungiri	MWE agencies (DWRM, DEA, NEMA, NFA, NWSC, UAs) and other relevant ministries, Ministry of Lands, Housing and Urban Development, Ministry of Justice and Constitutional Affairs

COMPONENT 1: WSS IN SMALL TOWNS AND RGCS AND SUPPORT TO DISTRICTS	OUTPUTS/ACTIVITIES	INSTITUTION Directorate of Water Development (DWD)	KEY STAKEHOLDERS DISTRICT LOCAL GOVTS	OTHER INSTITUTIONS/ CIVIL SOCIETY
constructing and rehabilitating WSS facilities, as well as providing associated services, including engineering, environmental and social studies, and supervision of construction activities;	Procure consultants to carry out construction supervision. Procure contractors to carry out construction of Water Supply, sanitation systems and source protection measures. Supervise construction of water supply, sanitation and source protection measures. Supervise consultants carrying out ESIA & RAP. Ensure active involvement of stakeholders in the implementation of agreed investments Prepare regular progress reports on the implementation of the activities	Contract Management Team Eng Herbert Nuwamanya Eng Emmex Turyatunga Catherine Agwai Angwec Trinah Kyomugisha Benjamin Natumanya WSDF Team; WSDF Managers; East, North and South West Clerk of Works Mark Ahimbisibwe	Namasale, Busia, Tirinyi-Kibuku-Budaka- Kadama-Butaleja- Busolwe, Namungalwe-Kaliro, Kyegegwa-Mpara- Ruyonza, Ngora, Koboko, Rukungiri	MWE agencies (DWRM, DEA, NEMA, NFA, NWSC, UAs ) and other relevant ministries, Ministry of Lands, Housing and Urban Development, Ministry of Justice and Constitutional Affairs

COMPONENT 1: WSS IN SMALL TOWNS AND RGCS AND SUPPORT TO DISTRICTS	OUTPUTS/ACTIVITIES	INSTITUTION Directorate of Water Development (DWD)	KEY STAKEHOLDERS DISTRICT LOCAL GOVTS	OTHER INSTITUTIONS/ CIVIL SOCIETY
preparing and implementing sanitation plans in selected small towns;	Supervise consultant carrying out sanitation planning Implement sanitation plans Ensure involvement of stakeholder especially those in the communities.	Natumanya Benjamin (Social safeguards) Busia; Christine Niwamanya Mbale Cluster; Julia Kamara Kyegegwa-Mprara-Ruyonza; Allan Mugisha Namungalwe-Kaliro; Joan Arinaitwe Namasale; Trinah Kyomugisha (Environmental safeguards) Busia; Joan Birungi	Busia, Ngora, Koboko, Rukungiri	MWE agencies (DWRM, DEA, NEMA, NWSC, UAs ) and other relevant ministries, Ministry of Lands, Housing and Urban Development, Ministry of Justice and Constitutional Affairs. Ministry of Health, Ministry of Local Government
Strengthening the capacity of UWA in the areas of operational and financial management, including the establishment of a remote monitoring system for rural water systems; and	Procure goods Upgrade UMIS Supervise supply of goods. Supervise consultant carrying out upgrade of UPMIS. Contract Management Procurement of consultancy to carry out Professionalization of UWAs	Contract Management Team Eng Herbert Nuwamanya Eng Emmex Turyatunga Catherine Agwai Angwec Umbrella Coordination team Eng Godfrey Hashakimani Umbrella Managers; South West,		MWE agencies (DWRM, DEA, NEMA, NFA, NWSC, UAs ) and other relevant ministries, Ministry of Lands, Housing and Urban Development, Ministry of Justice and Constitutional Affairs

COMPONENT 1: WSS IN SMALL TOWNS AND RGCS AND SUPPORT TO DISTRICTS	OUTPUTS/ACTIVITIES	INSTITUTION Directorate of Water Development (DWD)	KEY STAKEHOLDERS DISTRICT LOCAL GOVTS	OTHER INSTITUTIONS/ CIVIL SOCIETY
carrying out environmental and social management-related activities to protect water sources and sensitize communities	Monitor ESMP Community engagement and information disclosure Implementation of the RAP Ensure compliance with Environment and Social safeguards guidelines. Engagement of stakeholders on source protection activities.	Natumanya Benjamin (Social safeguards) Busia ; Christine Niwamanya Mbale Cluster; Julia Kamara Kyegegwa-Mprara-Ruyonza; Allan Mugisha Namungalwe-Kaliro; Joan Arinaitwe Namasale; Apophia Mugoye Trinah Kyomugisha (Environmental safeguards)	Namasale, Busia, Tirinyi-Kibuku-Budaka-Kadama-Butaleja- Busolwe, Namungalwe-Kaliro, Kyegegwa-Mpara-Ruyonza, Ngora, Koboko, Rukungiri	MWE agencies (DWRM, DEA, NEMA, NFA, NWSC,UAs ) and other relevant ministries, Ministry of Lands, Housing and Urban Development, Ministry of Justice and Constitutional Affairs, Ministry of Local Government, Ministry of Gender, Labour and Social Development

**1.2 Institutional framework for Rural Water and Sanitation Department**

Component Outputs	Provision of Water Supply Infrastructure Provision of Sanitation and Hygiene Infrastructure, Promotion of sanitation and hygiene
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	INSTITUTION	MINISTRY OF WATER & ENVIRONMENT			KEY STAKEHOLDERS	OTHER INSTITUTIONS / STAKEHOLDER
	FUNCTION/ACTIVITY	Project Management	Rural Water Dept	Directorate of Water Resources Management (DWRM)	DISTRICT LOCAL GOVTS	
	Component 1: WSS					
COMPONENT COORDINATION, EXECUTION & IMPLEMENTATION	Coordination & execution Project Supervision Implementation of project activities Provide technical back-stopping Monitoring project activities Compilation of work plans & budgets Compilation of procurement plans Compilation of status, quarterly, interim & annual reports Performance Technical Reports Provide strategic guidance in design and implementation of catchment based IWRM activities around Irrigation schemes		Eng. Francis Tumwine – (Component Coordinator – Infrastructure Development)  Eng. Olweny Lamu – (Sub- Component Manager – Host Communities and Refugees)  Mutibwa Robert– (Sub- Component Co-Manager – Host Communities and Refugees)  Isaac Natukunda – (Sub-	Dr. Callist Tindimugaya – (Sub-Component Manager – Integrated Catchment Mgt)  Regional team WMZs  Albert Orijabo- Co-Sub Component Manager (IWRM)  Pule Johnson – (Water Resources Expert)	CAO DWO DEO DCDO	

Subcomponent 1.2 Rural Areas	Procurement of Consultancy services for Engineering Supervision	GFS	Procurement Specialist/PDU	Hilary Mutabazi		DWO Kasese	
	Procurement of Works and execution		Financial specialist	Collins Yebazamukama Team Leader TSU 6		DWO Buhweju	
	Review and approval of interim payment certificates		M&E specialist	Team Leader TSU 8		ADWO – Mob	
	Undertake routine supervision of works					ADWO – San.	
Undertake monthly site inspections and meetings	Large & Medium Solar	Procurement Specialist/PDU	James Seguya		DWOs in respective Districts		
Provide technical backstopping and quality assurance		Financial specialist	Carol Kasisira				
Facilitate quarterly technical committee meetings	Mini Solar	Procurement Specialist/PDU	Catherine Orishaba –		DWOs in respective Districts		
Facilitate District technical, support, supervision and monitoring	Sanitation and Hygiene	Financial specialist					
Technical commissioning of works		Sanitation Coordinator	Martha Naigaga Mercia Tusiime		DHIs ADWOs – Mob ADWOs – San		

	<p>Environmental &amp; Social Monitoring Program (ESMP) Train key stakeholders on implementation of ESMP Implement and monitor Environmental and Social Management Plan (ESMP) – mitigation of negative environmental and social impacts On-site inspection of construction activities to verify execution of measures identified in ESMP Ensure compliance of works implementation with mitigation</p>	<p>Environmental Specialist</p>	<p>Safe Guards Specialist  Mugeiga Kato Catherine Muhumuza</p>		<p>District Environment Officer  District Forest Officer  District Land s Officer  ADWOs – Mob ADWOs – San</p>	
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<p>Subcomponent 1.3 Host Communities and Refugees</p>	<p>Procurement of Consultancy services for Engineering Supervision Procurement of Works and execution Review and approval of interim payment certificates</p>	<p>GFS</p>	<p>Procurement Specialist/PDU Financial specialist M&amp;E specialist</p>	<p>Olweny Lamu David Bateganya Team Leader TSU 1 Team Leader TSU 2</p>		<p>DWO Yumbe DWO Arua</p>	
	<p>Undertake routine supervision of works Undertake monthly site inspections and meetings Provide technical backstopping and quality assurance</p>	<p>Large Solar</p>	<p>Procurement Specialist/PDU Financial specialist M&amp;E specialist</p>	<p>Mutibwa Robert Carol Kasisira</p>		<p>DWOs in respective Districts</p>	
	<p>Facilitate quarterly technical committee meetings Facilitate District technical, support, supervision and monitoring</p>	<p>Sanitation and Hygiene</p>	<p>Sanitation Coordinator</p>	<p>Martin Akonya  Kate Namyalo</p>		<p>DHI Yumbe DHI Arua DHI Moyo DHI Lamwo</p>	



	<p>Environmental &amp; Social Monitoring Program (ESMP) Train key stakeholders on implementation of ESMP Implement and monitor Environmental and Social Management Plan (ESMP) – mitigation of negative environmental and social impacts On-site inspection of construction activities to</p>	<p>Environmental Specialist</p>	<p>Safe Guards Specialist  Julius Bakashabaruhanga – (Sub-Component Community Development Expert – Host Communities &amp;</p>		<p>District Environment Officer  District Forest Officer  District Land s Officer  ADWO – Mob</p>	
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**Component 2: National Water and Sewerage Corporation**

	<b>FUNCTION/ ACTIVITY</b>	<b>NWSC TEAM COMPOSITION</b>
<p>COMPONENT COORDINATION, EXECUTION &amp; IMPLEMENTATION</p>	<p>Coordination &amp; execution Project Supervision Implementation of project activities Provide technical back-stopping Monitoring project activities Compilation of work plans &amp; budgets Compilation of procurement plans Compilation of quarterly, interim &amp; annual status/progress reports Provide strategic guidance in design and implementation of WATSAN activities</p>	<p>Component 2: Urban Water Supply and Sanitation under NWSC Eng. Cyrus Titus Aomu – Project Coordinator  Gulu WATSAN Project Eng. Cyrus Aomu – Project Manager Grace Nayebare – Project Engineer Clerk of Works – Kennedy Geria  Adjumani - Pakele WATSAN Project Eng. Frederick Arinaitwe – Project Manager Project Engineer – TBA</p>

		<p>Clerk of Works – Walter Onen</p> <p>Mbale WATSAN Project  Eng. Charles Kayondo – Project Manager  Ritah Nalumansi –Project Engineer  Clerk of Works – Dennis Edema</p> <p>Source Protection and Environmental Safeguards  Innocent Twesigye – Environmental Officer</p> <p>Social Safeguards  Joseph Ssebuliba – General oversight of environmental and social safeguards  Maria Nambiro – Project Sociologist – Mbale  Victoria Komukyeya – Project Sociologist – Adjumani and Gulu  Field Staff (9)- TBA</p> <p>Programme Support  Technical Assistant (Implementation Support Officer) – TBA</p>
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**Component 3: Water Resources Management**

Component 3: Support to implementation of	OUTPUTS/ACTIVITIES	INSTITUTION Directorate of Water Resources Management (DWRM)	KEY STAKEHOLDERS	OTHER INSTITUTIONS/ STAKEHOLDERS (MFPED, MOLG, MoGLSD,
		Project Management Unit (PMU)	DISTRICT LOCAL GOVTS	
Component coordination, implementation & execution	Coordination & execution Project Supervision Provide technical back-stopping Monitoring project activities Compilation of work plans & budgets Compilation of procurement plans Compilation of quarterly, interim & annual status/progress reports	Dr. Callist Tindimugaya – (Component Manager- IWMDP Albert Orijabo- (Assistant Component Manager-IWMDP Eng. Mohammed Badaza Project Technical officer Nelson Waiswa- Social Support –IWMDP Nantongo Annette- Senior Water Officer		MWE agencies (DWD, DEA, NEMA, NFA, NWSC ) and other relevant ministries

<p>a)Implementation of priority projects identified in the Catchment Management Plans</p>	<p>Manage the contracts for implementation of priority investments in 5 sub-catchments located in Kyoga WMZ (Awoja, Mpologoma, Lumbuye) and Upper Nile WMZ (Aswa &amp; Albert Nile) catchments Supervise the implementation of the priority investments in liaison with the relevant agencies and stakeholders and ensure that the work is completed in a timely manner</p>	<p>Kyoga WMZ (Contract Management Team) Louis Mugisha- Team Leader Kyoga WMZ (Contract Manager) Maximo Twinomuhangi- Senior Water Officer (Assistant Contract Manager) Sylvia Nanyunja- Senior Water Officer ) Edmond Tumusiime – Senior Hydrogeologist Farida Nantege- Social Scientist</p>	<p>Catchment Management Organizations for Awoja, Mpologoma, Lumuye, Aswa and Albert Nile catchments and</p>	<p>MWE agencies (DWD, DEA, NEMA, NFA, NWSC), other relevant ministries and agencies (MAAIF, MOLG, UWA etc) , civil society organizations, private sector etc</p>
<p>b) Preparation of Catchment Management Plans for Albert and Kyoga WMZs</p>	<p>Manage the contracts for preparation of 4 Catchment Management Plans and stakeholders mobilisation, engagement and capacity building for Nyamugasani - Albert WMZ, Kafu - AWMZ, Sezibwa - KWMZ and Oweng – KWMZ and ensure that the work is completed in a timely manner Ensure active involvement of stakeholders in preparation of the Catchment Management</p>	<p>Kyoga WMZ (Contract Management Team) Louis Mugisha- Team Leader Kyoga WMZ (Contract Manager) Sylvia Nanyunja- Senior Water Officer (Assistant Contract Manager) Maximo Twinomuhangi- Senior Water Officer (KWMZ) Kenneth Okello- Water Analyst (KWMZ) Prose Oshaboheebwa- Social Scientist</p>	<p>Catchment Management Organizations for Nyamugasani, Kafu, Sesibwa and Oweng catchments and local</p>	<p>MWE agencies (DWD, DEA, NEMA, NFA, NWSC), other relevant ministries and agencies (MAAIF, MOLG , UWA etc) , civil society organizations, private sector etc</p>

c) Institutional development for Integrated Water Resources Management	Procure tools and equipment to support operations of Albert, Kyoga and Upper Nile WMZs	Contract Management Team Nantongo Annette- Senior Water Officer (Contract Manager) Iragena Anthelem – Senior Water Officer (Assistant Contract Manager)		
d) Water Information System (WIS)	Procure contract for establishing a fully functional Water Information System Manage the contracts for establishing the WIS Prepare regular progress reports on the	Contract Management Team Pamela Agaba – Senior Water Officer (Contract Manager) Caroline Nakalyango- Senior Water Officer		
e)Improvement of water resources monitoring	Procure a contract for establishing 17 monitoring stations (5 surface water, 5 groundwater and 2 climate, 5 atmospheric deposition stations Manage the contracts for establishing the stations Prepare regular progress reports on the	Contract Management Team Benon Zaake- Assistant Commissioner (Contract Manager) Anthelem Iragena – Senior Water Officer (Assistant Contract Manager) Aggrey Kweve- Senior Hydrological		
f) Assessing and managing the use of groundwater	Procure a consultancy services for quantification and assessment of sustainability of groundwater resources nationally and for various parts of the country as Manage the contracts for assessing and managing the use of groundwater Ensure active involvement of stakeholders in	Contract Management Team Johnson Pule- Principal Hydrogeologist (Contract Manager) Christine Mukwaya – Senior Hydrogeologist (Assistant Contract Manager) Richard Musota- Principal Water Officer	Relevant local governments covered by the studies	MWE agencies (DWD, NWSC), groundwater consultants, drilling companies, NGOs etc

<p>g) Support to implementation of Water Resources Management Component</p>	<p>Recruit project team to support implementation of Water Resources Management Component</p> <p>Procure equipment and tools to support project implementation</p>	<p>Albert Orijabo- (Assistant Component Manager- IWMDP)</p> <p>Nelson Waiswa- Social Support –IWMDP</p>		
<p>h) Development of the Albert Water management Zone strategy</p>	<p>Manage the contracts for preparation of Albert Water Management Zone strategy</p> <p>Ensure active involvement of stakeholders in preparation of the strategy</p> <p>Prepare regular progress reports on the implementation of the activities</p>	<p>Albert WMZ (Contract Management Team)</p> <p>Jackson Kitamirike – Team Leader (Contract Manager)</p> <p>Caroline Mwebaze – Senior Hydrologist (Assistant Contract Manager)</p> <p>Scollastic Ndinawe- Social Scientist</p>	<p>Local governments in AWMZ</p>	<p>MWE agencies (DWD, DEA, NEMA, NFA, NWSC), other relevant ministries and agencies (MAAIF, MOLG, UWA etc) , civil society organizations, private sector etc</p>