MINISTRY OF WATER AND ENVIRONMENT

DIRECTORATE OF WATER DEVELOPMENT

RURAL WATER SUPPLY AND SANITATION DEPARTMENT

Water for People-Uganda

KARAMOJA STRATEGIC WASH INVESTMENT PLAN

(K-WASHIP – 2021 -2030)

Prepared by MWE/RWSRCII

With support from Water for People

August 2021

Table of Contents

Acronyms

ACAO Assistant Chief Administrative Officer

AfDB	African Development Bank
ASPF	Annual Sector Performance Measurement Framework
ASPR	Annual Sector Performance Measurement Report
ADWO	Assistant District Water Officer
ATC	Appropriate Technology Centre
BCC	Behaviour Change Communication
BH	Borehole
BMT	Borehole Maintenance Technician
BoP	Best Operational Practice
CAO	Chief Administrative Officer
CAPMANEX	Capital Maintenance Cost
CbIWRM	Catchment based Integrated Water Resources Management
CC	Climate Change
CCC	Community Capital Contribution
C&D	Cooperation and Development
CDO	Community Development Officer
CLTS	Community Lead Total Sanitation
CM	Cubic Metres
CMO	Catchment Management Organisations
CNA	Capacity Needs Assessment
CWIS	City Wide Inclusive Sanitation
DAC	Development Assistance Committee
DDPs	District Development Plans
DE	District Engineer
DEO	District Education Officer
DHI	District Health Inspector
DINU	Development Initiative for Northern Uganda
DIP	District Implementation Plan
DLG	District Local Government
DWO	District Water Officer
DWSCC	District Water and Sanitation Coordination Committee
DPs	Development Partner(s)
EC/EU	European Commission/European Union
EIA	Environment Impact Assessment
ESIA	Environment Strategic Impact Assessment
FSTP	Feacal Sludge Treatment Plant(s)
GFS	Gravity Flow Scheme
GPS	Global Positioning System
HA	Health Assistant
HCF	Health Centre Facility
HH	House-Hold
HMC	Health Management Committee(s)
HPM(A)	Hand Pump Mechanics (Association)
HWWS	Hand Washing With Soap
IDMs	Inter District Meetings
ISH	Improved Sanitation and Hygiene strategy
JSR	Joint Sector Review
KAIPD	Karamoja Integrated Programme Development
KALIP	Karamoja Livelihood Improvement Program
K-WASHIP	Karamoja – Water and Sanitation Strategic Investment Plan
LC	Local Council
LGDP	Local Government Development Plan
LGFS	Large Gravity Flow Schemes
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
MDA	Ministry Department and Agency (LGDPs)
MECE	Mutually Exclusive but Completely Exhaustive

MEL	Monitoring, Evaluation & Learning
MHM	Menstrual Hygiene Management
MoES	Ministry of Education and Sports
MoGLSA	Ministry of Gender Labour and Social Affairs
MoH	Ministry of Health
MoLG	Ministry of Local Government
MWE	Ministry of Water and Environment
ND	No Data
NGO	Non-Government Organisation
NUSAF	Northern Uganda Social Action Fund
OCA	Organisational Capacity Assessment
OWC	Operation Wealth Creation
ODF	Open Defecation Free
OECD	Organisation of European Committee for Development
O&M	Operation and Maintenance
OPM	Office of the Prime Minister
PCR	Project Completion Report
PIAP	Programme Implementation Action Plans
PRDP	Peace Recovery Development Plan
PWD	People With Disability
RWHT	Rain Water Harvesting Technology
RWSD	Rural Water and Sanitation Department
RWSRC	Rural Water and Sanitation Regional Centre
S/C	Sub-County
SMC	School Management Committee
SO	Strategic Objectives
SoPs	Standard Operating Procedures
SSIS	Small Scale Irrigation System
SW	Shallow Well
ToR	Terms of Reference
ToC	Table of Content
TSU	Technical Support Unit
UBOS	Uganda Bureau of Statistics
USAID	United States Agency for International Development
USG	Uganda Sanitation Grant
USHA	Uganda Sanitation for Health Activity
VHT	Village Health Team
VT	Valley Tanks
WSCs	Water and Sanitation Committees
WASH	Water Sanitation and Hygiene
WES	Water and Environment Sanitation
WFP	Water For People
WfP	Water for Production
WRI	Water Resources Institute
WRM	Water Resources Management
WSDF	Water and Sanitation Development Facility
WWD	World Water Day

Glossary of terms

The WASH service ladder standards below respond to Sustainable Development Goal (SDG) targets 6.1 and 6.2.

Household Sanitation Service Ladder

Safely managed	Use of improved[1] facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site
Basic	Use of improved[1] facilities which are not shared with other households
Limited	Use of improved[1] facilities shared between two or more households
Unimproved	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
Open defecation	Disposal of human feaces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste

[1]*Improved sanitation facilities are those designed to hygienically separate excreta from human contact.*

Household Water Service Ladder

Safely managed	Drinking water from an improved water source which is located on premises, available when needed and free from feacal and priority chemical contamination
Basic	Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing
Limited	Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing
Unimproved	Drinking water from an unprotected dug well or unprotected spring
Surface water	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal

Household Hand Washing Service Ladder

Basic	Availability of a hand-washing facility on premises with soap and water
Limited	Availability of a hand-washing facility on premises without soap and water
No Facility	No hand-washing facility on premises

Comparison of sanitation Definitions

JMP/UNICEF Definitions	Government of Uganda Definitions
Safely managed	Safely managed
Basic	Basic + fly management
Limited	Limited + fly management
Unimproved	Unimproved
Open defecation	Open defecation

FOREWARD

The Water and Environment Sector (WES) is constantly evolving and hence the need to develop and /or update the strategies for effective and efficient service delivery in order to meet the needs

of all users - "leaving no one behind" in line with the Sustainable Development Goals (SDG) 2030 ambition.

The Ministry of Water and Environment (MWE) in partnership with its Development Partners (DPs) developed a Sector Strategic Investment Plan (SSIP) for the period 2018 -2030 as vehicle for resources mobilisation for WES services delivery. It covers all the sub-sectors, however it is a generic plan and thus not operational at the respective regions with their unique peculiarities and the local conditions.

The MWE's/Rural Water and Sanitation Department's/Rural Water and Sanitation Regional Centres II has been supported by Water for People (WFP) an international Non-Government Organisation (NGO) to develop a regional specific 10-year Water Sanitation and Hygiene (WASH) investment plan for the Karamoja region code named - Karamoja WASH Strategic Investment Plan (K-WASHIP) 2021 -2030. My Ministry is grateful for this support. It will go a long way in galvanising efforts towards meeting the WASH needs for the Karamoja sub region. I appeal to my technical staff to reach out to the sector partners operating in the respective regions to also develop regional specific strategies to guide resource mobilisation and implementation as a means to fulfilling the sector National Development Plan Phase three (NDPIII) targets.

I now launch the K-WASHIP 2021 -2030
For God and my country

Minister for Water and Sanitation
Ho. Sam Cheptoris

ACKNOWLEDGEMENTS

This study is a partnership between the Ministry of Water and Environment (MWE's)/Rural Water and Sanitation Department's (RWSD)/ Rural Water and Sanitation Regional Centres (RWSRCs) and Water for People an international NGO which has provided financial support towards the

developments of the Karamoja WASH Strategic Investment Plan (K-WASHIP) 2020 -2030. From the Government of Uganda (GoU)/ MWE, we are grateful for the guidance.

To the RWSRC 2 team responsible for the Karamoja and the Teso subregions spearheaded by the Team Leader Eng. Wilfred Okello, the Engineer Fabian Mulala, the Public Health Specialist Daniel Emadu, the Hydrologist Asaneth Kwagalakwe and the Community Development Specialist Simon Peter Omalinga, whose participation made this study possible. The study greatly benefited from the important contributions made through valuable inputs from the following stakeholders; Development Partners (DPs), Non-Government Organisations (NGOs), District Local Governments (DLGs), S-counties and communities.

The two-person consulting team was comprised of Grace Waako Katuramu an Institutional/Organisational Development expert and Engineer Eng. Gaetano Okello.

1.0 EXECUTIVE SUMMARY

Goal of the strategy

The overall goal for K-WASHIP is to develop a more accurate and localised strategic WASH investment plan for Karamoja Sub- Region to guide achieving universal access to safe water by 2030 as stipulated in the Sustainable Development Goal (SDG) 2030 Agenda and Uganda's Vision 2040.

K-WASHIP aims at bridging the WASH service delivery gap through galvanising stakeholders to contribute and optimise resources holistically in WASH service delivery.

Vision: Improved quality of life and socio-economic transformation through sustainable access to and use of climate resilient water and sanitation services for all in Karamoja sub region.

Mission: To ensure sustainable and inclusive access to and use of climate smart and resilient water and sanitation services for all in Karamoja sub- region by 2030.

Goal: To improve the health and socio- economic well-being of the people of Karamoja sub region through provision of integrated & inclusive climate smart and resilient WASH services by 2030.

Strategic Objectives
The K-WASHIP Strategic Objectives (SOs) are:

SO1. To coordinate and enhance the capacity of stakeholders at the Regional, District and Sub-County levels in order to ensure effective and efficient WASH services delivery by 2030,
SO2. To support planning and development of WASH interventions in order to ensure improved livelihood of the people of Karamoja by 2030,
SO3. To promote Catchment based Integrated Water Resources Management (CbIWRM) of the available water and related resources in the sub region for accelerated socio-economic development by 2030,
SO4. To improve Monitoring, Evaluation & Learning (MEL) for sustainable and climate resilient WASH services by 2030,
SO5. To contribute to resources mobilisation for increased WASH services delivery within the Karamoja sub –region by 2030.

K- WASHIP Components and cost per component
A set of strategic actions to support the operationalization of K-WASHIP are elaborated per SO as follows;

SO1: To coordinate and enhance the capacity of stakeholders at the Regional, District and Sub-County levels in order to ensure effective and efficient WASH services

Component 1: Sustainable WASH systems strengthening and Capacity development

SO2: Improved planning and development of WASH interventions

Component 2: Inclusive Climate Smart and Resilient Water Supply and Sanitation Services

SO3: Promote Catchment based IWRM of the available water and related resources in the sub region for accelerated socio-economic development by 2030.

Component 3: Promotion of Catchment based IWRM,

SO4. To improve Monitoring Evaluation & Learning (MEL) for sustainable and climate resilient WASH services by 2030,

Component: 4: Monitoring, Evaluation and Learning (MEL) for sustainable and climate resilient WASH services

SO5: To contribute to resources mobilisation and efficient utilisation for increased WASH services delivery within the Karamoja sub –region by 2030,

Component 5: Resources mobilisation for increased WASH services.

About Karamoja

Karamoja sub -region is comprised of 9 District Local Governments. It has a very small population of 1,223,059 people occupying only 10% of the land area - 21,767km ^{2}. It is projected to reach 2,048,179 by 2030[1] -this is a very low population growth compared to the national average. The Karamojong have a strong culture and traditions which are fortified and permeate their daily lives. The Karamojong are cattle keepers as the main source of livelihood, the animals are more than the human population. Linked to this, there are two parallel leadership structures followed, the cultural around elders/clan leadership organised along major clans and the formal civic government structure. In terms of settlement patterns, 75% of the population live settled lives in homesteads referred to as "Erre" an equivalent of the "Manyatta" for the Masai of Kenya. The erre typically is a conglomeration of between 20 – 30 families of the same clan or blood relations. This set up provides an opportunity for planning and provision of WASH services instead of district /sub-county and parish levels. Currently the quality of life in the erre is poor, with no proper housing characterised by overcrowding and poor/inadequate hygiene and sanitation facilities. Karamoja receives approximately 600mm of rainfall in a year, one rainfall season lasting between 2 to four months which comes with high intensity leading to flooding, soil erosion as well as destruction of the infrastructure.

Challenges/gaps

The Uganda Bureau of Statistics (UBOS) Website indicates that 60.8% of the Karamojong are poor and lacking in basic needs for survival. Particularly the WASH services are faced with a number of challenges ranging from low water table which makes construction of water facilities very expensive, poor geological soil formations leading to high failure rates, poor Operation and Maintenance (O&M) practices whereby communities do not take care of the facilities and leaving O&M to government and NGOs- consequently 50% of the constructed water facilities are non-functional.

Resources requirements to implement the K-WASHIP

Financial resources requirements and opportunities for optimising resources and synergies to meet the WASH 2030 targets. The total resource requirements is about **Eight Hundred Forty One**

[1] UBOS 2016 studies

Billion One hundred Fifteen Million Shillings (841,115bn) over the 10 year period. The division per component is as follows;

Component 1: Sustainable WASH systems strengthening and Capacity development -– 90,356.71bn

Component 2: Inclusive Climate Smart and Resilient Water Supply and Sanitation Services - 707,188.82bn

Component 3: Promotion of Catchment based IWRM -10,943.81bn

Component: 4: Monitoring, Evaluation and Learning (MEL) for sustainable and climate resilient WASH services requires Component 5: Resources mobilisation for increased WASH services - 32,625.96bn

2.0 INTRODUCTION/BACKGROUND

2.1 Background

Planning for the K-WASHIP is carried out within the framework of National Development Plan Phase Three (NDPIII); whose theme is "Sustainable industrialization, for inclusive growth, employment and sustainable wealth creation. The NDPIII Vision is "a transformed society from a peasant to a modern and prosperous country by 2040". The Goal is "Increased household income and improve quality of life – for both the citizens and refugees".

Government of Uganda (GoU) in partnership with its WASH Development Partners (DPs) have agreed to achieve certain targets in the Water Supply and Environmental Sanitation and these targets are stipulated in the various policies, strategies and medium-term planning instruments.

The Water and Environment Strategic Sector Investment Strategy (SSIS) 2018 -2030 is a long-term planning document which consolidates the priority Water Sanitation and Hygiene (WASH) investments and the required funding in order to meet the 2030 targets as articulated in the various planning documents and the international frameworks/agreements.

Based on the sector targets, on an annual basis effort by the various sector stakeholders are made towards contribution to achieving the targets and at the sector level, these targets are monitored through the Annual Sector Performance Measurement Framework (ASPF). The monitoring culminates into the compilation of an Annual Sector Performance Report (ASPR) which is shared in a multi sectoral forum referred to as the Joint Sector Review (JSR). The SPR provides annual achievements and an analysis of the gaps towards meeting the 2030 targets. In the table below is an excerpt of the relevant WASH indicators and targets in the SSIP and also contained in the Annual SPR.

Table 1: Relevant WASH Sector indicators from the SSIP 2018 - 2030

Outcomes	Sub sector	Indicators	Baseline	Target
Clean water supply	Rural water & Sanitation	1.Village water supply	66%	100%
		2. Functional rural water sources	85%	100%
	Rural water & Sanitation/Urban	3.Improved drinking water	70%	100%
		4. Safely managed drinking water	7%	100%
		5. Per capita investment cost	$32	$75
	Urban water & sewerage	6. Urban water service functionality	92%	100%
Sanitation & public health	Sanitation and hygiene	7. Solid waste disposal	68%	90%
		8. Improved sanitation	19%	50%

		9.Safely managed sanitation	9%	100%
		10. Hand washing at home	37%	90%
		11.Handwasshing at school	35%	90%
Water for Food production	Water for Production	12. Irrigation	0.49%	90%
Water for economic activity		13. WfP functionality		
		14. Storage capacity	38.8CM	163.67CM
Water quality & quantity	Water Resource Management	15. Compliance with water standards	64%	90%
		16. Permit compliance	71%	90%
	WRM/Sanitation & Hygiene	17.Waste water treatment	20%	60%
	Water Resource Management	18. Ambient water quality	0%	100%
		19. Level of water stress	60%	100%

SSIP 2018

The current level of annual sector funding to the WASH sub sector needs to increase in order to meet the set targets. With the current level of funding, the sector will not be able to meet its targets due to limited funding, unless government increases the level of funding and/or new innovative ways to fund the priority investments are developed and implemented. The national coverage has reduced to 67% (2020) as compared to the baseline year of 2018 due to number of factors such as high population growth rate which out stripes the new facilities being constructed annually, poor Operation and Maintenance (O&M) of facilities. Therefore, meeting the universal access to safe water by 2030 requires coordinated efforts and optimising resources by all sector players.

There are variations in WASH coverage figures across the country; Karamojo sub –region is one of the regions below the national average in the range of 63% and some villages in Abim with a coverage figures as low as 24%. Thus, the need to develop a sub-regional SSIP in order to mobilise resources to meet the unique sub regional WASH needs.

2.2 The layout of the WASH strategic Investment plan

The K-WASHIP consists of three main Sections which are further sub-divided into seven chapters.

Section A: Overview

Chapter 1: provides information on the background & rationale, purpose & objectives of the K-WASHIP and the lay out of the K-WASHIP.

Section B: Detailed description

Chapter 2 describes the legal, policy & institutional framework, the coordination mechanisms. Chapter 3 covers the situation analysis of WASH provision for Karamoja sub –region, Chapter 4 covers the synthesis of planning issues and recommendations, Chapter 5 covers the strategic plan 2021 -2030, Chapter 6 covers implementation strategies and requirements, Chapter 7 covers the Monitoring & Evaluation framework, Chapter 8 covers the Communication strategy, Chapter 9 covers Risk assessment and management.

Section C: Appendices

Chapter 10 covers the appendices to the WASH Investment plan; it sets out to provide detailed illustrations/ explanation of the concepts /aspects of some sections of the report. The appendices include:

Annex 1: ToRs for the assignment;
Annex 2: Map of Karamoja Sub-region,
Annex 3: Budget break down for the RWSRCII,
Appendix 4: The District Investment Plans (DIPs) for the 9 DLGs
Appendix 5: Detailed financial resources requirements for K-WASHIP 2030

3.0 About Karamoja Sub -region

3.1 Population projections for the sub region

Karamoja has a very small population of 1,223,059 people occupying only 10% of the land area - 21,767km [2]. It has a very low population growth compared to the national average; they were only 50,000 Karamojong in 1962 at the time of Uganda's independence. The population is projected to be 2,048,179 by 2030. The current population and projections by 2030 for the 9 districts is shown below:

Table 2: District population figures, projections & growth rates

District	Population			Population growth rate (%)
	2014	2020	2030	
Abim	109,039	153,799	272,843	5.9
Amudat	111,758	157,636	279,646	5.9
Kaabong	169,274	107,900	138,112	2.5
Karenga		84,100	107,655	2.54
Kotido	178,909	209,000	385,016	6.3
Nabilatuk	169,691	90,179	144,286	4.81
Nakapiripirit		116,695	207,020	5.9
Napak	145,219	203,675	357,927	5.8
Moroto	104,539	121,375	155,674	2.52
Total	**988,429**	**1,223,059**	**2,048,179**	

UBOS web

3.2 Culture and traditions

The Karamojong have a strong culture and traditions which are fortified and permeate their daily lives. Linked to this, there are two parallel leadership structures followed, the cultural around elders/clan leadership organised along major clans and the formal civic government structure. The cultural leadership is more respected and followed than the civic leadership. The strong culture has potential for reinforcing positive behaviour change and development if it is adapted around the elders' forum.

The Karamojong have two main clans the jie and the matheniko and two sub clans. In addition, there is a minority tribe called the Bukusu- Kadams who live in the mountains - they are only a total of 24,000 and they have a unique tradition of preserving the environment. Culturally they do not cut down trees and this has ensured that their environment remains intact.

3.2 Settlement patterns

In terms of settlement patterns, 75% of the population live settled lives in homesteads referred to as "Erre" an equivalent of the "Manyatta" for the Masai of Kenya. 12% live in trading centres, towns & these are typically civil servants or employees of NGOs/CBOs or private sector organisations and only 3% of the population still live a nomadic lifestyle which involves shifting from place to place in search for water and pasture[2].

[2] Dr Lim Lim - Head of NUSAF in the OPM and one of the respected Karamojong personalities with a lot of development work experience both internationally and locally.

The erre typically is a conglomeration of between 20 – 30 families of the same clan or blood relations. This set up provides an opportunity for planning and provision of WASH services instead of district /sub-county and parish levels. Currently the quality of life in the erre is poor, with no proper housing characterised by overcrowding and poor/inadequate hygiene and sanitation facilities.

Plate 1: Erre in Kotido DLG

3.3 Sources of livelihood

According to Uganda Bureau of Statistics (UBOS) figures, 60.8% of the Karamojong are poor and lacking in basic needs for survival. The Karamojong are cattle keepers as the main source of livelihood, the animals are more than the human population. In addition to cattle, they also own goats, sheep, and poultry. The animals are a source of prestige rather than for economic improvement. It was reported that the cows are treasured more than women. And for that matter, one cannot plan for domestic water intervention without planning for water for animals – the two are intertwined. During the drought, typically the herdsman water the animals before any water for domestic use is collected. This has been one of the causes of domestic violence due to fights which take-place at the watering places especially during the drought period.

Furthermore, the Karamajong have a cultural attachment to their livestock (Cattle, Goats, Sheep, and Donkeys) and of recent Pigs from which for many centuries have derived their livelihoods (source of: wealth/income, food, pride and nativity). However, the livestock is not equally distributed among the Karamojong, it varies from some who own over 1000 heads of cattle to others who own as few as 20. The socio-economic dis-equilibrium created a culture of cattle raids that were well organized, planned, researched and well executed massively as well as highly militarized cattle thefts/raids and counter raids often leading to fierce armed wars resulting into deaths of many young energetic men referred to as the Warriors (Karachuna). The deaths led to a situation of many widows and orphans; consequently, Karamoja has the highest population of widows and orphans in Uganda.

Frequent cattle raids caused challenges in the general service delivery and WASH service delivery within the Karamoja sub region. Between the seventies and nineties these armed conflicts were exacerbated by the proliferation of small weapons and light ammunitions from the violent history of Uganda as well as the existence of neighbouring politically unstable countries with porous borders that facilitated the smuggling in of the arms and weapons that grossly fuelled the conflict]up to 2004 when the Uganda government forcefully disarmed most of the warriors in the sub region and scaled down raids to merely ordinary cattle thefts which was of negligible security threat. The forced disarmament made cattle raids non lucrative and very risky hence majority of the warriors have taken on alternative means of livelihoods availed through the various affirmative government socio-economic programmes in the sub region such as Karamoja Livelihood Improvement Program (KALIP), Peace Recovery Development Program (PRDP2), NUSAF2&3, DINU, KIDP 2&3, Operation Wealth Creation (OWC) to mention, but a few.

3.4 Rainfall patterns

Karamoja receives approximately 600mm of rainfall in a year, one rainfall season lasting between 2 to four months which comes with high intensity leading to flooding, soil erosion as well as destruction of the infrastructure. During the drought, when the ground dries there is no vegetation growth including pasture for livestock within the sub region. The Karamajong are forced to move westwards towards the neighbouring sub regions of Acholi, Lango, Teso and Elgon in search for pasture and water for their livestock. Sometimes the livestock are fed on crops in the gardens like cassava, sorghum, groundnuts and millet especially the gardens neighbouring the dams in areas such as Arechek, Kobebe and Longirimit as well as around some of the valley tanks. During this dry season, many water sources are also vandalised by the warriors as they look for water for domestic use and their livestock. At the end of the drought, as the Karamojong return to their sub region, they steal all cattle from the host communities.

3.5 Water Sanitation and Hygiene and their functionality

To-date over 60 dams have been constructed but most of them are silted and dysfunctional. Over 3000 boreholes have been sunk in the Karamoja sub region but with very high failure rate, mainly due to poor geological soil formations. In addition, there are poor Operation and Maintenance (O&M) practices – it was reported that over 50% of the boreholes are non- functional. O&M is left to government, NGOs and politicians especially during the campaign period. However, there are few pockets of good practices in O&M of particularly in communities where the boreholes are located near the respective elder's homes and if those boreholes are named after those elders. The elder in whose name the borehole is given views it as a source of pride and therefore assumes responsibility of a caretaker who ensures that it is well maintained and in case of breakdown, they mobilise the users around the area to contribute towards the repairs.

4.0 Rationale for developing the K-WASHIP and its Strategic thrust

4.1 Rationale

The MWE developed a Strategic Investment plan for the Water and Environment Sector, Uganda (2018 - 2030) which is quite broad and thus may not be operational in the respective regions of Uganda due to the uniqueness of the local conditions. This calls for the need to develop a localised SSIP for the respective regions. Thus there was need to develop a more accurate and localised strategic WASH investment plan for Karamoja Sub Region to guide achieving universal access to safe water by 2030 in line with SDG target 6 ambitions.

Climate Change (CC) is further exacerbating the inadequate WASH provision through episodes of intensification of the droughts and floods. In addition, there is increased variability between these two extremes and it is expected to worsen over the coming decades. In the short term, rainfall is predicted to increase by 7% across Eastern Africa and projections of warming varying from 0.2C per decade to more than 0.5C per decade. Thus, adaptation measures to address these increasing risks is at the core of formulation of the K-WASHIP. The interventions are critical for dampening the impacts of CC by providing improved access to WASH services and strengthening the adaptive capacity and livelihood resilience of the Karamojong communities.

Currently, Regional centres have no development funding except the GoU allocation for salaries and operations of their respective offices/ regional centres. On average each Regional Centre receives ***576,700 million Uganda shillings*** per Financial Year (FY) – details of the breakdown is provided in Annex 14.4. Regional centres have been tasked to develop proposals for funding. A strategic WASH investment plan will be a vital tool for resource mobilisation. Support to implementation of the K-WASHIP 2021 -2030 will increase visibility of RWSRCs in general and RWSRCII in particular. It will also increase focus on Water Management and Development issues in policy, planning, decision making and budgeting processes in line with the mandate for MWE within the framework of NDPIII programming approach.

4.2 Rationale for Water for People's involvement

Water for People (WFP) in partnership with Kamwenge DLG piloted the use of District Investment Planning (DIP) to guide in coordinated planning, implementation as well as inform tailor made advocacy at the DLG level. Due to successful lessons from using this approach in the identification of the unserved population and guide planning, the MWE adopted the approach. In 2016, MWE in close collaboration and partnership with WFP conducted DIP in almost all the districts in Uganda. Within RWSRCII area of jurisdiction, it was only Amuria district that missed on the exercise due to unresponsiveness from the district. Four new districts have since been created, namely: Nabilatuk, Karenga, Kapelebyong and Kalaki, and thus creating a need to conduct the investment planning for the new districts as well update the Investment Plans for the others conducted four years ago. The results of which shall be consolidated to guide more coordinated planning, implementation as well as inform tailor made advocacy at the regional level.

Recently still, WFP took the efforts a notch higher by piloting a complimentary approach of Asset Analysis. The exercise was carried out in Napak district and the results provided the following; i)

a proper and accurate register of all the WASH infrastructure in Napak, ii) their level of functionality with associated risks due age and physical state, iii) level of water service provision each facility offers and iv) the capital cost required for maintenance of all the facilities (CAPMANEX). These two pieces of vital analysed data sets triggered the support to RWSRCII develop a regional specific strategic plan which will go a long way in providing a reference document for MWE/Regional centres operationalise their new mandate. Based on experience and lessons learnt from preparation of K-WASHIP, opportunities for WFP to support RWSRCII to carry out a similar exercise in the Teso sub- region and the other 5 RWSRCs of the MWE/RWSD will be explored.

4.3 Goal and objectives for developing the WASH strategic Investment Plan

4.3.1 Goal of the K-WASHIP

To improve the health and socio- economic well-being of the people of Karamoja sub region through provision of integrated & inclusive climate smart and resilient WASH services by 2030.

4.3.2 Objectives for K-WASHIP

The K-WASHIP Strategic Objectives (SOs) are:

SO1. To coordinate and enhance the capacity of stakeholders at the Regional, District and Sub-County levels in order to ensure effective and efficient WASH services delivery by 2030,
SO2. To support planning and development of WASH interventions in order to ensure improved livelihood of the people of Karamoja by 2030,
SO3. To promote Catchment based Integrated Water Resources Management (CbIWRM) of the available water and related resources in the sub region for accelerated socio-economic development by 2030,
SO4. To improve Monitoring, Evaluation & Learning (MEL) for sustainable and climate resilient WASH services by 2030,
SO5. To contribute to resources mobilisation for increased WASH services delivery within the Karamoja sub –region by 2030.

5.0 Legal and policy framework

5.1 Policy Planning frameworks and strategies

This chapter presents results of reviewing literature in order to provide a comprehensive understanding of the international, regional and Uganda's strategic planning direction; the laws and regulations for the Water and Environment Sector and the Country's strategy for the sector.

5.1.1 International and Regional Planning Context

In September 2015, the General Assembly of United Nations adopted seventeen sustainable development goals- SDGs (Global Goals) whose theme is "***leaving no one behind***" as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The seventeen SDGs include (1) No poverty, (2) Zero hunger, (3) Good health and wellbeing, (4) Quality Education, (5) Gender Equality, (6) Clean water and Sanitation, (7) Affordable and clean energy, (8) Decent Work and Economic growth, (9) Industry, Innovation and Infrastructure, (10) Reduced Inequalities, (11) Sustainable cities and communities, (12)

Responsible consumption and production, (13) Climate action, (14) Life below water, (15) Life on Land, (16) Peace, Justice and Strong Institutions, and (17) partnerships for the goals**.**

Uganda is a member of the United Nations and has since ratified all the SDGs above. By implication, institutional planning at country level resonates with the global goals. K-WASHIP is developed in linked to ***Goal 6***: ***Ensure availability and sustainable management of water and sanitation for all.***

At the regional level of East Africa, the member states inclusive of Uganda, Kenya, Tanzania, Rwanda, Burundi and South Sudan formed the East African community that envisions a developed, stable and competitive regional block that will ensure enhanced "Inclusiveness in development and social economic transformation", and has set a target to reduce the percentage of people living below the poverty line to less than 10% by 2030.

5.1.2 Country Strategic Planning Context

In January 2020, the Government of Uganda launched the Third National Development Plan (NDP III) 2020/21 – 2024/2025 with a goal ***"To Increase Average Household Incomes and Improve the Quality of Life of Ugandans".*** It seeks to integrate innovative ways for pursuing a green path to development. The Plan enumerates five objectives inclusive of: 1. Enhancing value addition in key growth opportunities; 2. Strengthening the private sector to create jobs; 3. consolidating and increasing the stock and quality of productive infrastructure; 4. Enhancing the productivity and social wellbeing of the population; and 5. Strengthening the role of the state in guiding and facilitating development.

The operationalization of the NDPIII plan is through implementation of Programme Implementation Action Plans (PIAPs) for the respective implementing Ministries, Departments and Agencies' (MDAs) Strategic Plans, the respective Local Government Development Plans (LGDPs) and planning frameworks for the for the respective non –state actors namely the DPs, CSOs and PSOs.

NDPIII promotes collaboration and coordination of programmes which contribute towards similar outcomes in order to leverage resources and optimise synergies.

The plan aims at addressing the following issues: i) Build a modern, people centred, integrated, resilient and self – sustaining national economy, ii) Address the plight of 68.9% of Ugandans households still in the substance economy, iii) Address the poverty reversal in the high poverty regions of Uganda including Lango (15.6%), Acholi (33.4%) and Karamoja (60.8%)[3], West Nile stands at 34.9%, iv) Harness the youthful population consisting of 78% of the population (approximately 33.5m people) in order to achieve demographic dividends.

Salient features: i) Programme based/Results based – delivery of results through a programmatic approach to planning, budgeting & implementation. There are a total of 18 programmes; each programme with a PIAP, ii) Increased role of the state – strengthened government role to fund wholly or jointly with private sector & communities in order to spur economic growth, iii) Enhanced service delivery at the grass root: Strengthening the S/County level as the lowest

[33] UBOS UNHS 2016/2017 –section VI.

planning unit & the parish as the administrative unit & operational hub for all government services at the local level.

The former WES under MWE has been integrated into 3 major programmes of the NDPIII as follows;

1) Water Supply and Sanitation coordinated by the Ministry of Education and Sports (MoES),
2) Water for Production: Under Agro industrialization programme coordinated by Ministry of Agriculture, Animal Industry and Fisheries (MAAIF),
3) Natural Resources Environment Climate Change Land Water Management Development Programme coordinated by MWE & housed in MWE consists of DWRM, DEA & CCD, NEMA, UNMA and NFA plus Ministry of Lands Housing and Urban Development.

Strategic actions/activities under Human Capital Development coordinated by MoES. The other relevant agencies are Ministry of Gender Labour & Social Affairs (MGLSA) as well as the Ministry of Health (MoH).

5.1.3 Water and Sanitation Policies & strategies

Rural Water and Sanitation service delivery in Uganda is anchored in Government of Uganda laws, policies, strategies and planning documents. The Uganda Vision 2040 singles out water development as one of the opportunities that can foster socio-economic transformation. Similarly, the Constitution of Uganda (1995) provides that clean and safe water as a right is enshrined in the Constitution as objective 21;

The other Key legal documents include the following:

- The Water Act, Cap 152(1997).
- The Water Policy (1999); provides for the Water Source Committees/water boards to collect funds for preventive maintenance and repair
- The Local Government Act (1997); defines roles for different levels of government in provision and management of water and sanitation.
- The Local Government Act also empowers Local Councils to make bye-laws, subject to certification by the next higher Council or the Attorney General.
- The Land Act (1998); vests all rights to water resources in the Government.
- The public Health Act (2000); consolidates the laws and regulations on public health.
- The National Water Policy (1999); promotes an integrated approach to managing water sources sustainably to benefit the people of Uganda.
- The National Gender Policy (1999) enshrines the affirmative action by GoU in support of gender equity in the national socio-economic activities and encourages women to play a major role in decision-making,
- The Strategy for Water for Production 2018 -2030 envisages that every S/county to have a dam and in every parish a valley tank in order to address the water needs for WfP.

5.2 Institutional set up

The Water and Environment Sector consists of three sub sectors: Water Supply and Sanitation (WSS) and Environment, Natural Resources (ENR), and Climate Change (CC). The WSS Sub sector, comprises two directorates: the Directorate of Water Development (DWD) and Directorate of Water Resources Management (DWRM). The DWD comprises four departments namely; Rural Water Supply and Sanitation Department (RWSD); Urban Water Supply and Sanitation; Water for Production; and Water Utilities Regulation Department.

5.3 The Rural Water Supply Regional Centres

The MWE has established deconcetrated structures located in the regions in an effort to take services closer to the users. The RWSD deconcentrated structure is referred to called the Rural Water Supply Regional Centre (RWSRC). There is a total of six RWSRCs covering the country. The RWSRCs' mandate includes the following;

i) Support to DLGs to implement the District Water and Sanitation Conditional grants;

ii) Support to the centrally implemented projects/programmes within the respective regions,

iii) Technical support to districts,

iv) Monitoring compliance,

v) Capacity-building to the district local governments and stakeholders

vi) Support planning and development of water systems that traverse local government boundaries,

v) Support to Climate Change mainstreaming

vi) Support to implementation of Climate smart WASH interventions.

vii) Spearhead coordination and promotion of synergies of the various stakeholders in the implementation of WASH.

The niche for the RWSRC is premised on their role in coordination, harmonisation, and promotion of synergies with other MDAs in Programme Delivery[4]. Secondly, they are well positioned to increase visibility and focus on Water Management and Development issues in policy, planning, decision making and budgeting processes, oversight and mediation.

The RWSRCs are also well positioned to support regional level stakeholders in adapting implementation in line with the programming approach. The following changes and adaptations are proposed in the existing Regional/DLG coordination forums/committees;

→ Review the membership and roles of the District Water and Sanitation Coordination Committee (DWSCC) and ensure that it is aligned to the Human Capital Development programme where WASH falls. This requires more coordination with the education

[4] Adapt the WASH cluster approach advocated and supported by UNICEF for support to programming approach

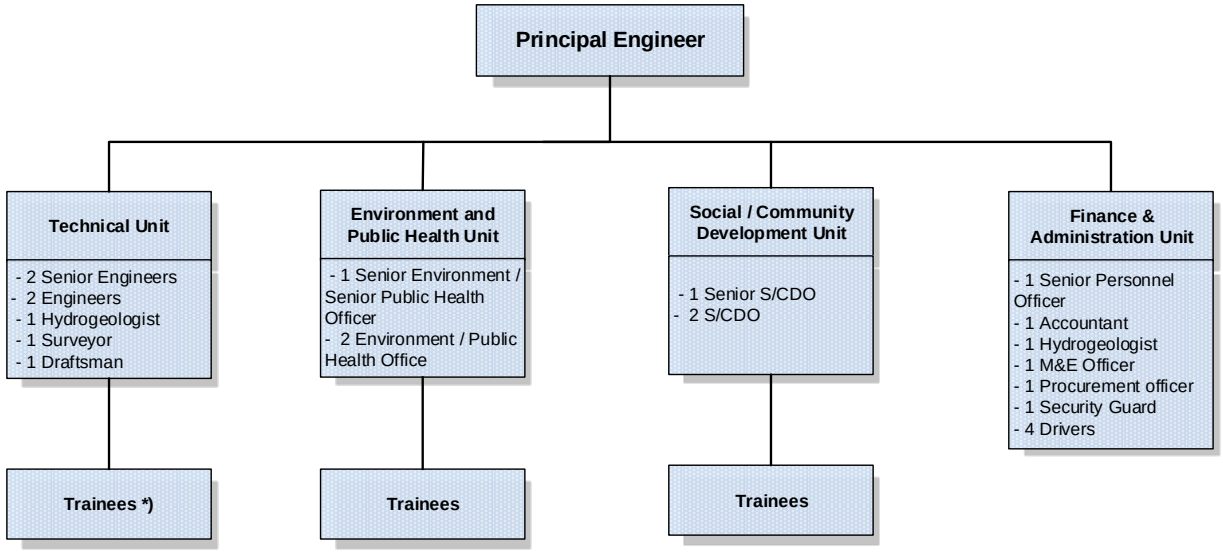
department when organising coordination forums at the region and DLG levels in order to ensure adequate information sharing and optimal resource utilisation;

→ Support to water supply provision for institutions requires close coordination and working with the health facilities/hospitals, prisons/police units/schools. RWSRCs need to work more with the heads of institutions beyond the current ones with whom they had established rapport;

→ The role of MWE in coordinating the water resources programme which includes land and wildlife requires that RWSRC works more closely with the Water Management Zones (WMZs) especially in the Catchment Management Planning and derivation of projects their in. The Catchment/Sub –catchment and micro catchment Management Plans need to be the basis for developing the WASH infrastructure i.e., as a planning tool.

→ Support to Water for Production activities in partnership with the Karamoja Water for Production office mainly because in Karamoja all domestic water sources/systems have to make provision for watering livestock and secondly the new mandate for RWSRC includes implementation of micro irrigation systems.

Figure 1: Functional organogram for the RWSRCs



*) All trainees attached to a Senior officer

Table 3: Staffing for the RWSRCs

Staffing	**Staff categories**			
	Engineering	Sanitation & Hygiene Promotion	Community Development	Finance & Administration
Principal	1 Principal Engineer			
Senior	2 Senior Engineers	1 Senior Environmental Health Officer	1 Senior Community Dev't Officer/ Social Scientist	1 Senior Administrator
Officer	2 Engineers 1 Hydro-geologist 1 Surveyor 1 Draftsman	2 Environment Health Officers	2 Community Devt/ Social Scientists	1 Accountant 1 Procurement Officer 1 M&E officer 1 IT Officer 1 Secretary 1 Security officer 4 Drivers
Total				**23***

5.4 Summary of stakeholders' roles & responsibilities in Rural WASH

The roles and responsibilities of the various stakeholders in rural WASH; some roles are implemented by more than one stakeholder category and therefore this calls for coordination and information sharing in order to optimise resources. In **Table 4**, below is an overview of the roles and responsibilities:

Table 4: Stakeholder roles & responsibilities in rural WASH

Roles and Responsibilities	Actors						
	Community	**S/C**	**DLG**	**RWSRC**	**MWE/MDAs**	**NGOs/CBOs**	**DPs**
Planning for Rural WASH							
Identification of needs/ unserved areas	✓	✓	✓				
Identification of sites & provision of land for rural facilities	✓	✓					
Implementation of rural WASH — hardware & software							
Contribution of Community Capital Contribution	✓	✓					
Construction of hardware facilities			✓			✓	
Implementation of the software activities (community mobilisation, hyg. & san. awareness		✓	✓				
Operation and Maintenance of rural WASH							
Formation of WSCs		✓	✓			✓	
Payment for O&M	✓						

Collection of money for O&M	✓						
Monitoring & Evaluation							
Monitor and report on functioning of the facilities	✓	✓	✓				
Monitoring the quality of the water & the infrastructure		✓	✓			✓	
Capacity building / development of stakeholders in Rural WASH							
Carrying out CNAs for stakeholders in rural WASH			✓	✓		✓	
Dissemination of relevant Policies, strategies & guidelines on rural WASH			✓	✓	✓	✓	
Training of stakeholders to fulfil their R&Rs in WASH		✓	✓	✓			
Coordination of stakeholders			✓	✓		✓	
Resources mobilisation & fundraising for rural WASH							
Profiling & lobbying for the WASH needs for the sub-region			✓	✓	✓	✓	✓
Proposal writing (joint or individually)			✓	✓	✓	✓	✓
Development of information packages			✓	✓	✓	✓	

for sharing in various fora							
Governance & Dispute Resolution							
Manage relationships between WSC/LCs and water users		✓	✓				
Oversee the development of by-laws and their enforcement				✓			
Ensure security of infrastructural assets (e.g. from vandalism)	✓	✓	✓				

6.0 SITUATIONAL ANALYSIS

In line with the vision and targets for WASH service delivery set forth in the NDPIII framework following a programmatic approach in service delivery; the Karamoja sub-region has potential for improved and sustainable WASH service delivery. Below in **Table 4** is an overview of the current WASH situation for each of the 9 DLGs in terms of total land area, population, the population served, the un served, total access for both urban and rural areas, the number of rural water sources, the functional, non- functional as well as the functionality rates for the respective DLGs.

Table 5: Current WASH coverage figures for the 9 DLGs[5]

District Local Government	Area (km²)	Population	Served Population	Un Served Population	Total Access Urban+Rural	Rural Water Sources	Functional sources (rural)	Non-Functional sources (rural)	Rural Functionality
Abim	2,352	153,177	119,712	33,465	78%	404	303	101	75%
Amudat	1,616	136,621	68,050	68,571	50%	195	149	46	76%
Kaabong & Karenga	5,652	170,700	147,872	22,828	87%	617	510	107	83%
Kotido	2,767	153,927	122,973	30,954	80%	583	429	154	74%
Moroto	2,938	119,069	94,497	24,572	79%	327	269	58	82%
Nabilatuk	-	90,179	49,267	40,912	55%	190	124	66	65%
Nakapiripirit	2,626	116,695	68,468	48,227	59%	249	202	47	81%
Napak	3,816	159,484	128,399	31,085	81%	545	459	86	84%
Karamoja Level	**21,767**	**1,099,852**	**799,238**	300,614	**71%**	3,110	**2445**	**665**	**78%**
National Level	180,703	41,184,937	27,593,137	13,591,800	67%	119,222	101,223	17,999	85%

There are a number of barriers hindering effective safe water and sanitation delivery in Karamoja sub –region, namely;

a) Water coverage: The water coverage varies from 40% - 80% within the different districts of Karamoja sub –region. The sub -region experiences inadequate water for people, livestock and crop agriculture during the dry months of the year. There is also inadequate pasture for the livestock during the dry months of the year. Below is an overview of safe water coverage within Karamoja sub-region;

A synopsis of the status of WASH provision in the Karamoja sub region is as presented in the tables below. The percentage safe water coverage achieved a combination of more than one or two water supply technologies.

[5] SPR 2020

Table 6: Rural water access & the unserved villages in the 9 DLGs[6]

Karamoja Sub Region						
District	Rural water access (June 2020)	Total Number of villages 2020	Village with at least one Safe Water Source		Village with No Safe Water sources Villages 2020	
		Number	Number	%	Number	%
1-Abim	76%	311	148	48%	163	52%
2-Amudat	47%	169	100	59%	69	41%
3-Kaabong	85%	518	280	54%	238	46%
4-Karenga						
5-Kotido	78%	201	173	86%	28	14%
6-Moroto	80%	154	110	71%	44	29%
7-Nabilatuk	55%	55	46	84%	9	16%
8-Nakapiripirit	57%	123	84	68%	39	32%
9-Napak	81%	251	190	76%	61	24%
Karamoja Sub Region (Total/Average)	**70%**	**1,782**	**1,131**	**63%**	**651**	**37%**
National Level (Total/Average)	**68%**	**57,974**	**38,739**	**67%**	**19,235**	**33%**

The total number of villages served is 1,131 representing 63% coverage and the unserved villages are 651 representing 37%.

b) Dwindling funding for WASH infrastructural projects: Over the last three financial years the funds appropriated to the WASH sector both at the central and local government levels has been reducing while the population has been rising. In practice the funds released, accessed by the MWE as budget support and LGs as conditional grant sometimes is not commensurate with the population growth. Therefore, this is a barrier to WASH service delivery in the sub region which may delay the achievement of universal coverage by 2030.

[6] Quarterly RWSRC2 report 2020/2021

Table 7: FY2020/2021 funding figures for the 9 DLGs[7]

	Karamoja Districts					
1	573	Abim	322,472,093	64,942,515	19,801,980	407,216,588
2	581	Amudat	494,977,676	61,650,017	19,801,980	576,429,674
3	559	Kaabong	294,672,731	78,032,418	19,801,980	392,507,130
4	634	Karenga	255,297,726	54,694,196	19,801,980	329,793,903
5	528	Kotido	558,694,416	68,929,779	19,801,980	647,426,175
6	538	Moroto	359,687,533	68,122,295	19,801,980	447,611,808
7	623	Nabilatuk	415,092,071	55,205,465	19,801,980	490,099,516
8	543	Nakapiripirit	476,480,894	64,763,751	19,801,980	561,046,625
9	604	Napak	587,705,210	84,463,607	19,801,980	691,970,797
Sub Total- Karamoja Districts			**3,765,080,351**	**600,804,044**	**178,217,822**	**4,544,102,217**

MFPED Indicative planning figures

c) Inadequate staffing: The District Water Offices are grossly under staffed; the staffing levels vary between 20% - 40%. Below is an overview of the current staffing levels as of September 2020.

7

Table 8: Staffing status for the 9DLGs (end of quarter 1 - 2020)[8]

DISTRICT	DWO	Engineering Assistant	BMT	ADWO Mobilisation	ADWO Sanitation
1. Abim	Substantive DWO	No Eng. Asst	BMT	Seconded	Seconded
2. Amudat	Substantive DWO	Eng. Asst	No BMT	Vacant	Seconded
3. Kaabong	Acting. DWO	No Eng. Asst	BMT	No ADWO Mobilisation	Seconded
4. Karenga	**Substantive DWO doubling as DE**	Eng.Asst	No BMT	Seconded	Seconded
5. Kotido	Substantive DWO	Eng. Asst	BMT	Seconded	Eng. Assistant handling
6. Moroto	Substantive DWO	Eng. Asst	No BMT	ADWO Mobilisation	ADWO Sanitation
7. Nabilatuk	**Substantive DWO doubling as DE**	Eng. Asst	No BMT	Seconded	Seconded
8. Nakapiripirit	Substantive DWO	Eng. Asst	No BMT	ADWO Mobilisation	Seconded
9. Napak	Substantive DWO	Eng. Asst	No BMT	ADWO Mobilisation	Seconded

MWE/RWSRC-2 quarterly monitoring reports

The low staffing levels lead to ineffective and inefficient planning, implementation, inadequate supervision results into poor quality facilities with no value for money, poor functionality and high O&M costs of the facilities and ultimately impact service delivery. Consequently, inadequate staffing will be a barrier to the achievement of the universal access to WASH services by 2030.

d) Geology and soil formations: Due to geological formations in some parts of Karamojo, there are limited technological options for WASH interventions. Furthermore, there are areas with high levels of fluoride and therefore the water in these places is not fit for human consumption due its corrosiveness – mainly in Napak. The areas with limited ground water potential, in these areas borehole drilling goes to the depth of between 140 -150metres and even there are more chances of hitting a dry well. Consequently, the cost of drilling a bore hole is 2 times higher than other regions, even then the failure rates for boreholes is the highest in the country. Table 8 below provides an overview of the Sub-counties which are water stressed;

8

Table 9: Water stressed Sub-counties

Districts	*Sub Counties with low ground water potential*
1. Abim	Nyakwae,
2. Amudat	Looro, Karita,
3. Kaabong/ Karenga	Lobangangit, Loleia, Sidok, Kamion, Lodico, Kaabong East and Kaabong West.
4. Kotido	Kacheri, Nakapelimoru, Rengen, Kotido
5. Moroto	Tapac, Katikekile, Rupa, Kobebe, Lotisan, Nangorit
6. Nakapiripirit	Kakomongole, Mourita and Namalu
7. Napak	Lokopo, Apeitolim, Lopeei, Iriiri, Lorengchora
8. Nabilatuk	Lorengdwat, Lolachat

RWSRC2 Quarterly reports

e) High failure rates of WASH infrastructure: The appropriate choice of technology for WASH services delivery in the Karamoja sub region when the population was low were – shallow wells (SWs), protected springs (PSs), rain water harvesting (RWH), deep boreholes (BHs), gravity flow schemes (GFSs), valley tanks (VTs), dams and piped water supply systems. With the onset of the climate change phenomenon, increasing pollution of water sources and rising population, the low-cost technologies (SWs, PSs, BHs) are no longer sustainable. The higher technologies like Solar/wind/hydro/fossil powered piped water supply systems and Large/Strategic reservoirs (Dams and VTs) are expensive, thus the unit cost of service deliver in the sector has risen steadily from 2000 to 2020.

The cost of service delivery is very high in Karamoja mainly due its distance from the capital and other regional towns from where materials are purchased. This rising unit cost resulting from the choice of higher technologies is a barrier to universal safe water coverage in Karamoja sub region and should be checked.

Furthermore, borehole drilling is not appropriate for the dry area with limited underground water potential; to-date over 3000 boreholes have been punched in the sub region and yet the communities have not received adequate water.

However, there is potential for Gravity Flow Schemes (GFS') in some parts of Karamoja especially in the hills of Moroto, Mt Kadam in Namalu, Napak and Morongole towards the national park.

f) Operation and Maintenance (O&M): There is poor O&M of the WASH infrastructure. More than 50% of the water supply facilities are dysfunctional and/or do not have adequate O&M structures. The practice in the region is that O&M is carried out by either the respective DLG, the NGOs in the area and during the political campaign season it is done by the political aspirants.

The ACAO in Charge of WASH in Nabilatuk informed the Consultants that about 70% of the boreholes were non-functional.

However, there were a few pockets of good O&M practices where the water facilities were given names of an elder/clan leader who automatically took over responsibility as a caretaker of the facility. This practice has worked well because it became a source of pride for the elder and thus ensured that the facility remains functional. Sometimes the elder collects funds for repairs from the users when the facility breaks down.

There is a critical mass of Hand Pump Mechanics (HPMs) in the region who have been trained by NGOs such as Welthunger Heifer, Save the Children and government through the RWSRCs and DLGs. They have formed themselves into Hand Pump Mechanics Associations (HPMAs) in the respective DLGs and thus are able to carry out repairs when needed.

In order for the HPMs to optimally support the O&M function there will be need to build their capacity in the following areas; i) planning & budgeting, ii) presentation & defending a budget, iii) General documentation, iv) Proposal writing.

g) Environment degradation: Karamoja sub region has a challenge of limited tree cover mainly due to degradation from human activity especially charcoal burning, overgrazing of the livestock and the drought conditions which limit the type of vegetation growing in the region.

However, there is a good practice of conservation of the environment and natural resources (wetlands, trees especially around the shrines/local parliament where the elders meet and make critical decisions. The community is prohibited from cutting any trees or shrubs around the area.

In addition, in the Kotido area, among the Kusuks (minority) tribe there is a good practice of environment conservation. In this community they have a tradition of picking only dried up trees, shrubs and grass.

h) Lack of involvement of the DLGs in supervision of MWE/Regionally constructed facilities: Due to a number of factors, the infrastructure including WASH facilities are not adequately and professionally supervised during construction. The DLGs are hardly involved in centrally implemented in the planning, siting, supervision and yet when the facilities have been completed the DLGs are invited to the commissioning during which the facilities are handed over to the DLGs for O&M and follow up; examples of the poorly supervised facilities are Nabelmokokai and Achegeralolin in Nabilatuk. Sometimes the DLGs are consulted but their issues are hardly integrated in the designs and implementation of the WASH projects.

i) Sanitation: Sanitation coverage varies from as low as 4% to around 50%. The challenge is mainly attributed to poor soils formation which leads to frequent collapsing of pit latrines, flooding which also leads to collapsing of latrines, negative cultural practices which discourage use of latrines.

j) Cultural taboos associated with sanitation: There are many cultural taboos, myths surrounding latrine use and hygiene promotion e.g., the elders do not use latrines because of the smell, there is belief that the smell is more dangerous than open defecation where the smell is spread and thus will not have any negative effect on the community. Another taboo is that one

should not cut grass before the harvesting the food crops; this implies that there cannot be slashing of the compound prior to the harvest season.

Even around the parliament/shrines where important clan elders' meetings take place, there are no safe water sources and sanitation facilities and yet major meetings take place there for long hours requiring use of water as well as sanitation facilities. Consequently, there is open defecation, sometimes they slaughter animals roast and eat without hand washing or they use water from the nearby unsafe sources such as ponds, streams etc.

Table 10: Trends in rural sanitation access in the 9 DLGs (2018, 2019 & 2020)

SN	District	Percentage Access.		
		2018	2019	2020
1	Nakapiripirit	40	35	60
2	Nabilatuk		0	15
3	Amudat	67	48	47
4	Napak	32	25	33
N	Moroto	65	35	32
6	Kotido	20	25	40
7	Kaabong	43	15	15
8	Karenga		0	33
9	Abim	65	28	40

RWSRC2 reports

k) Hygiene behaviour: There are very poor hygiene practices ranging from sharing of water sources with animals especially the open sources, poor sanitation around the water source for protected sources thus with potential to contaminate the underground water, solid waste disposal, communal bathing, sharing of clothes and consequently the typical Karamojong experience hygiene and sanitation diseases. Currently there is a scabies skin disease problem now nick-naked "am busy" because it keeps them occupied with scratching themselves to ease the irritation. This challenge is exacerbated by limited bathing especially during the drought and lack of prioritisation to buy soap.

l) Socio economy and gender issues:
Women and the youth are not part of the elders' forum and thus are not allowed to participate in the elders meeting and neither do they have an opportunity to table their issues. In addition women do not own property such as land or cows, they only own the smaller and insignificant livestock such as goats and poultry. However, they have access to land upon getting married through their respective husbands. They are not allowed to make major decisions, their roles are mainly hygiene and sanitation, latrine construction, building eres and preparation of local brew. The women's main source of income is from the sale of local brew which is also served during the elders' forums.

m) Equity and inclusion: The extreme weather conditions affect the elderly and the People With Disability (PWD) disproportionately especially among the 3% nomadic communities who are left to fend for themselves while the able bodied migrate in search for pastures and water.

o) The elite capture syndrome leading to poor targeting of the real beneficiaries of programmes and interventions. Currently the national planning platforms at the Local Government levels are: Higher (District) Local Government and Lower (Sub -County) Local Government both of which are manned by the educated Ugandans.

In the Karamoja sub region, this has turned out to be the greatest barrier to government services delivery in general and WASH in particular because in both platforms there is a lack of understanding the Karamajong way of life and their socio –cultural and the local economy. The planning and implementation process at the two platforms in general and the focus on *erres* have potential to positively change the life of an ordinary Karamajong through articulating the needs and adapting interventions to suit the local situation.

p) Inadequate water for domestic use, livestock and crop agriculture during the dry months of the year: Prior to the Climate Change scenario prevailing in Uganda, Karamoja had been experiencing a dry spell of 8 months during which precipitation majorly in form of rainfall is non-existent. The Karamajong are thereby subjected to harsh demands for pasture for their livestock, water for their people and livestock as well as for crops production. This is mainly because Karamoja lies in the rain shadow which implies that they get minimal rains coupled with poor geology and excessive evapo – transpiration (E_a).

The Karamoja sub region receives only one rainy season which comes with high intensity; it is torrential tropical rainfall ranging from about 700 mm to 2,000 mm annually. Due to the high intensity, it tends to cause flooding especially in the southern parts and the neighbouring Teso region. In addition, it causes soil erosion. It is this recommended to trap and store the rainwater within Karamoja region for distribution during the long drought season in order to alleviate the water shortage and stress.

Furthermore, some parts of Karamoja sub region is characterised by poor geological features ranging from soil texture which is mainly agro-rich sandy – clayey – loam soils thus leads to limited infiltration and thus does not allow for groundwater recharge; this coupled with the topography, leads the rain water to turn into surface runoffs which drain into the plains in Eastern Uganda - Lake. Kyoga. The runoffs also erode a lot of fertile soils from the sub region that ends up in L. Kyoga. Consequently, during the dry season because of the above three challenges, Karamoja sub region cannot meet the water demands for livestock, farming and domestic use. Thus, there is a tendency for the Karamojong to shift from place to place in search of pastures and water for livestock which makes planning for WASH interventions difficult. As a result, there are water facilities which lie in the bushes not serving any communities because the communities shifted from those areas.

q) Vandalism of water infrastructural facilities: During the dry spell in Karamoja sub region water sources are over used leading to many breakdowns of the facilities (boreholes and shallow wells) as well as driving the livestock directly into the small valley tanks. This causes the siltation and destruction of the geometrical shape of the facilities. The Karamajong communities have a dependence syndrome so do not want to pay for O&M of the WASH facilities thereby negatively

impacting on sustainability of the facilities. The rate of vandalism of the WASH facilities negatively reduces on coverage since the funds which would have been injected into new facilities are sunk in rehabilitation of the old facilities.

r) Security: Insecurity arising from inter-clan and cross border livestock thefts/raids from Turkana in Kenya affects WASH service, for instance one of the Water for Production facilities constructed by MWE was taken over by the Turkana who now charge all users including the Karamojongs who need to access the water during the drought period.

7.0 Stakeholders analysis

The stakeholder analysis includes ongoing WASH investments for the respective partners and their respective areas of focus with emphasis on opportunities for optimising synergies in WASH implementation. Below is the overview of the stakeholders and their respective interventions;

7.1 Government of Uganda interventions

7.1.1 Office of the Prime Minister:

The Office of the Prime Minister (OPM) has been implementing a number of targeted interventions in the Karamoja sub region. The Karamoja Integrated Development Programme Phase three (KIDP 2020 -2026) is currently under preparation, beginning with the situation analysis. Under KIDP I&II, OPM collaborated with MWE to implement parish level Water for Production facilities. Currently OPM has funded preparation of a strategic water for security dam located in Lopei between Napak and Kotido. It has a capacity of 380million cubic metres. It has potential for hydro power generation, industrial, irrigation, livestock watering and water for domestic purposes as well as flood mitigation.

It will be critical to interface with the consultant when the consultant(s) who will be developing the programme document in order to ensure that appropriate WASH issues are captured and eventually implemented in an effort to improve WASH service delivery within the sub –region.

Northern Uganda Social Action Fund (NUSAF) now in its third phase has supported construction of **10,000 m^3** (now upgraded to **20,000 m^3**) parish level Valley Tanks (VTs) as water for production facilities. To-date NUSAF3 has constructed 24 VTs in partnership with the MWE. Under NUSAF2, a borehole was added to each VT in an effort to integrate safe water for domestic use in all VTs planned and implemented.

7.1.2 Development Initiative for Northern Uganda (DINU)

This is an EU funded affirmative project under the OPM aimed at narrowing/reducing the poverty levels in some of the most critically poor districts within the Northern Uganda. DINU has three pillars/components:

I. Livelihood and nutrition,
II. Infrastructure- sub divided into three sub components,

- Roads, Logistics hubs (centres where goods are collected and distributed – inland ports, e.g in Gulu).

- Water for Production facilities specifically for Karamoja sub region.
- Mini Grid power.

III. Governance such as Public Accountability platform (BARAZAS, supporting the Local Governments and Financial Management.

7.1.3 Ministry of Water and Environment

In a bid to improve coordination and harmony in programming, the MWE is currently constructing a regional office for the deconcentrated structures responsible for the Karamojo sub-region based in Moroto. All the 4 deconcentrated structures namely; i) Karamoja Water for Production responsible for implementation of VTs & Small-Scale Irrigation Systems, ii) Karamoja Small towns project responsible for the urban /Rural Growth Centres (RGCs), iii) Karamoja Umbrella Authority responsible for O&M of the piped systems outside the NWSC jurisdiction and iv) Karamoja WMZ responsible for promoting and spearheading the CbIWRM activities within the four Catchments of Aswa, Lokok, Lokere and Awoja.

7.1.4 The Ministry of Local Government

The Ministry of Local Government (MoLG) is promoting affirmative action amongst the eight regions of Uganda experiencing high poverty levels, these are; i) Karamoja, ii) Teso, iii) West Nile, iv) Acholi, v) Bugisu, vi) Bukedi vii) Busoga and viii) Bunyoro.

The proposed actions include, promoting crops per region that can be marketed internationally through support from the Ministry of Agriculture and the National Agriculture Research Organisation (NARO) with support to value addition products along the agriculture value chain. Provision of water for irrigation would be an input to improving agriculture mainly due to the crucial role of adequate quantity and quality of water for agriculture improvement.

7.1.5 District Local Governments in the sub –region

The DLGs' main source of funding for WASH is the District Water and Sanitation Conditional Grants (DWSCGs). The funds have dwindled to an extent that in a Financial Year (FY) the DLG can implement a maximum of 4 boreholes and minimal repairs – this is too low to cause any significant increase in coverage. The DWSCGs will be replaced with the U-GIFT programme, which will increase funding significantly. The District Water Officer expressed need to be supported to shift from DWSCG to U-GIFT.

The DLGs are also complimented by a number of NGOs and Faith Based Organisations (FBOs); these are C&D, Welthhunger Hilfe, Save the Children, Caritus –Kotido Catholic Diocese.
Furthermore, DLGs expressed their frustration because they have no mandate to implement Water for Production – multi-purpose use and the large gravity schemes and yet there is great potential for these technologies; besides the respective DLGs technical personnel have the requisite capacity in terms of knowledge and skills to design and implement such technologies.

7.2 Development Partners supporting the Karamoja region

7.2.1 UNICEF

UNICEF is in the final stages of approving their new programme referred to as Climate and resilient programming in WASH. The focus will be on implementing climate resilience within the Karamoja sub-region. Through consultation with the UNICEF regional WASH specialist based in Moroto, the following were highlighted as the possible areas for support in WASH which could be implemented in partnership with RWSRCII. These activities will contribute to supporting 3 out the 4 components of the K-WASHIP 2021 – 2030 as highlighted in chapter 5.2 below;

i) Training and support to bottom-up planning for DLGs, Sub-counties and NGOs/CBOs-
ii) Training and support to institutional O&M (School Management Committee (SMC), Health Management Committees (HMC),
iii) Training in Water safety planning and management,
iv) Training and support in design review,
v) Training in siting and drilling supervision
vi) Training and support to contracting and contract management,
vii) Training and support to CbIWRM,
viii) Training and support to technicians & plumbers in basic trouble shooting in solar powered systems, and safe pit emptying through use of gulpers,
ix) Training and support in software – social mobilisation, hygiene and sanitation (PHAST, SARA methodology)
x) Update and adapt the promotional materials for Karamoja sun region,
xi) Up-scaling climate smart WASH technologies (e.g. wind generators, solar powered technologies for water systems)
xii) Support to regional level coordination and collaboration – Inter District Meetings (IDM),
xiii) Support to the dissemination of the national O&M framework for rural areas – at district level,
xiv) Procure 3 down the hole camera to facilitate water monitoring.

7.2.3 Non- Government organisations (NGOs) and Faith Based Organisations (FBOs)

The following NGOs were consulted;

7.2.3.1 Water for People

i. Build the capacity of RWRC staff to take on the WASH systems strengthening approach and appreciate the 9 building blocks (institutions, policy and legislation, finance, regulation and accountability, monitoring, planning, infrastructure, water resource management, and learning and adaptation) and the linkages between/among them,
ii. Strengthen the capacity of the RWRC to support districts to plan for water and sanitation services. A number of tools (Asset analysis, DIP etc) will be introduced and the team supported to utilise the tools during implementation,
iii. Support the RWRC to develop tools and approaches to monitoring of WASH service levels at the district level,
iv. Scale up WASH in urban areas of Karamoja sub-region,
v. Develop City Wide Inclusive Sanitation (CWIS) programmes in at least 5 small towns.

7.2.3.2 Save the Children

Has budgeted and earmarked about 750m for 2020 and 2021 to support the following activities;

Support the operationlisation of the National Framework for Rural WASH services infrastructure (2019) and the attendant Manuals – the ASP and WSSB Manuals (2020) through the following activities;

i) Support the HPMA to transit to Area Service Providers (ASP) to carry out O&M of rural WASH infrastructure outside the jurisdiction of NWSC and UA in Moroto and Amudat districts,

ii) Support to Amudat and Moroto districts in two sub-counties, namely Amudat & Loro Sub-counties and Nadunget and Tapach sub-counties respectively;

iii) Facilitate the formation of District and Sub- County Water Supply Services Boards (WSSBs)

iv) Capacity building and training of the WSSBs,

v) Establish HPMAs' offices and storage facilities at the two districts – Amudat and Moroto,

vi) Strengthen the District Water Offices (DWO) with the establishment of water monitoring units to support the ASP/HPMAs to carry out water quality monitoring – physical chemical and bacteriological;

7.2.3.3 Cooperation and Development (C&D)

Supports rehabilitation of boreholes, training and skilling of the HPMs- in Moroto alone 36 HPMs were trained and 20 are active. The HPMs are mainly senior four dropouts, hold Certificates in plumbing, motor vehicle repair.

In the assessment of C&D, the HPM(As) need further capacity building in the following areas;

i) planning & budgeting,
ii) presentation & defending a budget,
iii) General documentation,
iv) iv) Proposal writing.

7.2.3.4 Welt Welthunger Hilfe

The organisation has been operating in the Karamoja sub –region for the last 10 years. Have an annual budget of EU500,000 for Karamoja sub region alone covering a number of sectors. Currently they are the UWASNET Regional coordinators for Karamoja sub –region. They are implementing a project code named, Karamoja Integrated WASH program 2017 - 2021. It has three areas of focus, namely;

i) WASH in institutions and at household levels,

ii) Food security and nutrition at institutional level – schools & referral hospitals,

iii) Skills development – still at initial phase of development. The focus is on women groups, young people. The concept is built on working with the poorest of the poor.

The WASH component includes the following activities;

a) Support to IWRM – specifically supporting Lokere sub catchment and committees,

b) Implementing a cross border project,

c) Water source protection for valley tanks – including regulation of animals from watering directly in the Valley tanks - funded by GiZ,

d) Menstrual Hygiene Management (MHM) in schools through promotion of the concept of a menstrual cup,

e) Climate smartening existing high yielding boreholes through installation of solar pumping systems to increase their yields. These are mainly installed in schools and police stations.
f) Construction of dry compost latrines – they are environment friendly, use waste from timber collected from carpentry workshops (see picture below on plate 2)
g) Integrated the concept of playing and learning in the school WASH activities; which focuses on achieving 3 outcomes; i) Increased pupil/student enrolment, ii) Impact behaviour change, iii) Improved school retention.

Welt Hunger Heilfe is promoting the following innovations in their school WASH program;
1) Implementing school WASH clubs,
2) During the World Water Day – musicians from Kampala compose WASH songs in either English, Swahili or the local language and these are played during the WWD celebration,
3) Annual school competition around a relevant topic on WASH involving the head teachers and the District Education Officers (DEOs)
4) Implementing the concept of Community Health Clubs. Developed a module covering relevant WASH topics e.g., the safe water chain. It was developed in response to the weaknesses in Community Lead Total Sanitation (CLTS). Each club is comprised of between 15 -35 people, each member is given a membership card. They meet once a week and in total there are 2 -3 clubs in a village,
5) Community theatre troops comprised of drama groups within communities, local artists who choose a theme and act/sing on that given topic.
6) Have supported Asset registry and health survey in 2017
7) Using football as a fun filled sport and at the same time promoting relevant topics such as a hygiene and sanitation games or as an implementation strategy for promoting SOPs against covid-19 in both primary and secondary schools,

Plate 2: Appropriate Climate Smart sanitation technologies

Compost from the dry compost latrine

The dry compost latrine

Plate 3: Solar heating technologies

Plate 4: Vegetable gardening using compost

Appropriate climate smart technologies

Concave solar heaters/cooker

Challenges highlighted by Welt Hunger Helfi team where RWSRCII /MWE would be in position to support the CSOs/NGOs;

a) The need for standards for solar pumping and enforcing the requirement for the supplier to have an official representative within the region in order to ensure easy access to after sales services and spare parts availability for long term sustainability;
b) Communities defecate in the river beds and this leads to contamination of ground water – government could support the establishment of by –laws to stop this practice.

Furthermore, below are the proposed activities to which RWRSCII could work together with Welt Hunger Helfe;

- Requested RWSRCII to update list of WASH partners,
- Preparation of Covid19 prevention/response plan with partners,
- Updating the service delivery indicators,
- Preparation of manual(s) for WASH interventions

7.3 Hand Pump Mechanics (Associations)

The HPMs are mainly senior four dropouts, hold Certificates in plumbing, motor vehicle repair Will need capacity building in i) planning & budgeting, ii) presentation & defending a budget, iii) General documentation, iv) Proposal writing

8.0 SYNTHESIS OF PLANNING ISSUES AND RECOMMENDATIONS

8.1 Optimising Climate smart WASH

Catchment based Integrated Water Resources Management: The Karamoja sub region falls within four Catchment Management Areas namely: Awoja, Lokere, Lokok and Aswa Catchments.

Below is the division of the districts in the four respective catchments. It is proposed to implement WASH following a CbIWRM approach.

Table 11: Percentage & area of the Karamoja districts in the 2 of catchments

Districts	Lokere		Lokok	
	%	Area (km2)	%	Area (km2)
Karenga				
Kaabong	5.4	440.424	25.6	1,413.376
Kotido	3.8	309.928	34.9	1,926.829
Abim			9.4	518.974
Moroto	32.0	2,609.92		
Napak	32.9	2,683.324	22.8	1,258.788
Nakapiripirit	2.2	179.432		
Nabilatuk				
Amudat				

Optimal utilisation of rainfall: It is proposed to trap all rainfall during the rainy season and utilise it throughout the drought season until the subsequent rainy season. Below is an overview on the amount of natural run off which could potentially be retained and utilised within the respective catchments and sub-catchments.

Table 12: Natural runoffs by sub- catchments in the 4 catchments (excluding wetlands)

Catchment	Sub Catchment	MAP (mm)	Area (Km^2)	Natural Runoff		Unit runoff (mm)
				M3/s	MCM/yr	
Awoja	Okutat	800	1053	0.5	16	16
	Mt. Napak	1,200	822	3.7	117	143

Table 13: Cumulative stream flows

Catchment	Sub Catchments	MAP	Area	Incremental natural stream flow	Less Wetland Losses	Cumulative stream flow
	Name	Mm	Km^2	MCM/yr/a	MCM/yr	MCM/yr
Awoja	Ukutat	800	1053	16		16
	Mt. Napak	1,200	822	117		117

Figure 2: Awoja catchment

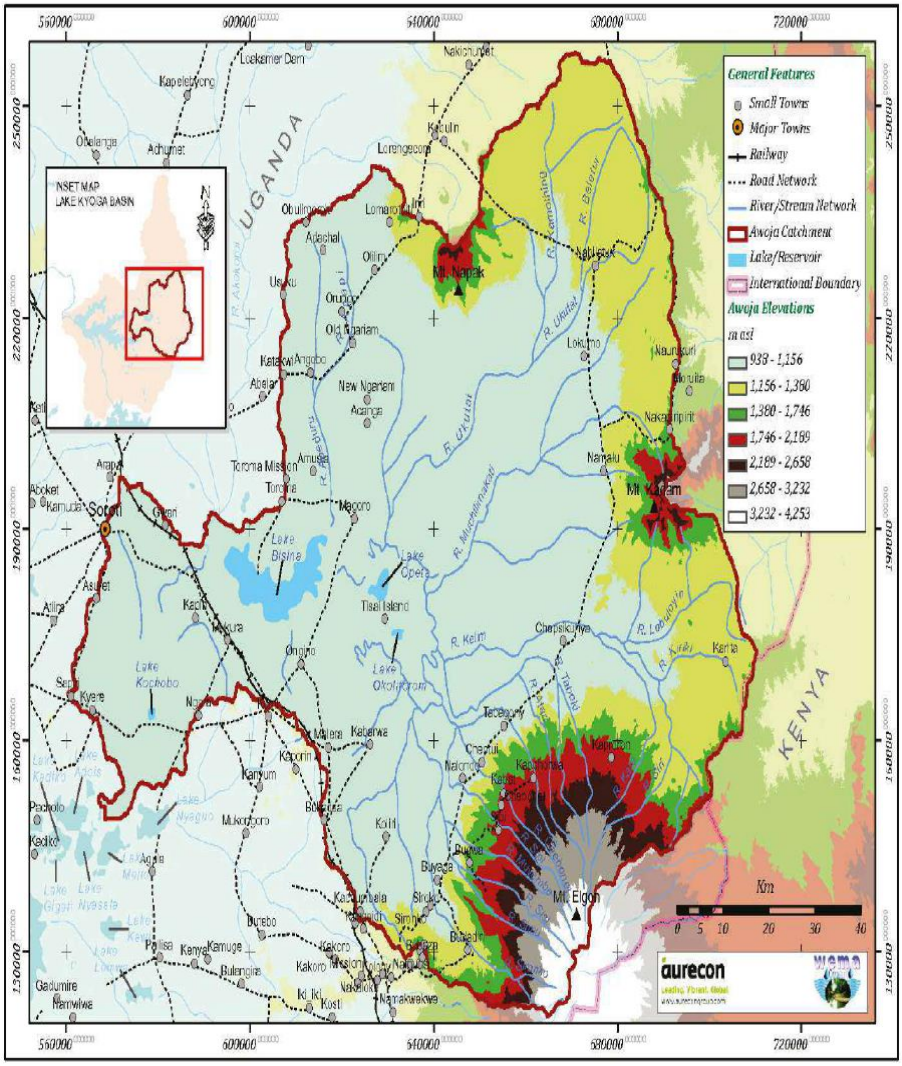
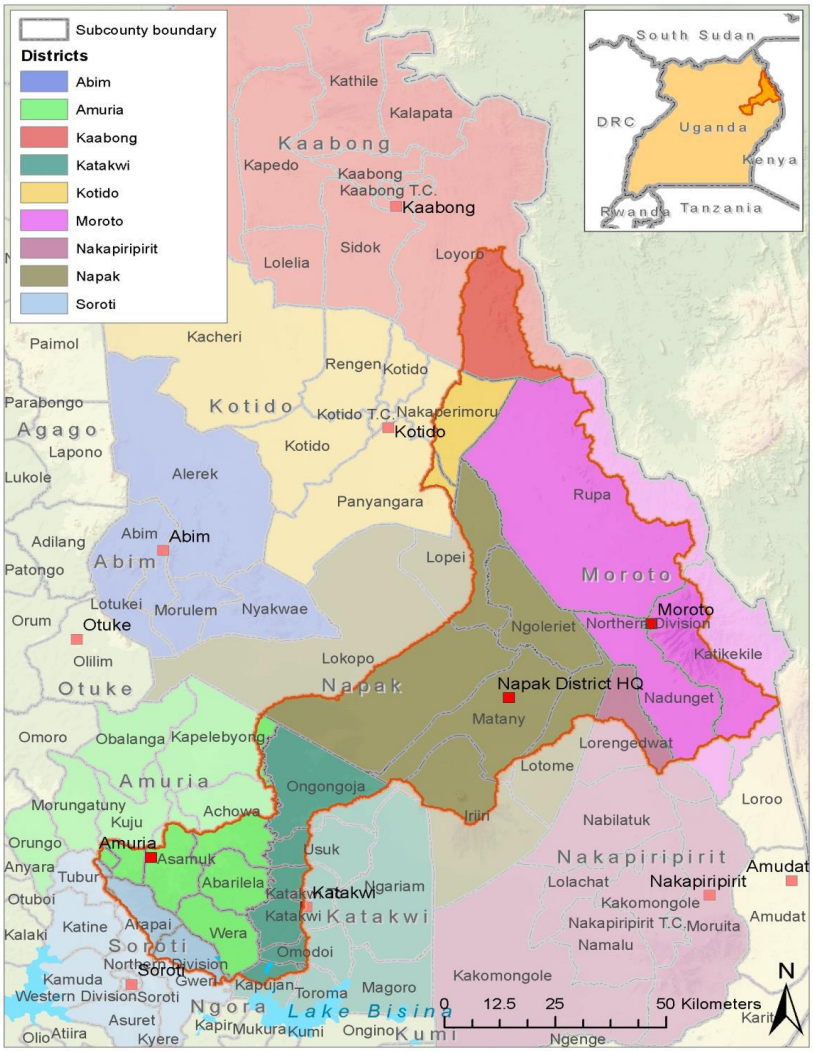


Figure 3: Lakok catchment



Integrated land tenure system: Promote preparation of an integrated land tenure system which allows optimal utilisation of the land resources and the multipurpose water systems. This will minimise the nomadic pastoralism and fence off land for livestock farming and crop farming.

Strategic reservoirs for water security: Furthermore, construct strategic water reservoirs as a water security measure which would trap the water before it joins the Nile River system. The potential sites are; i) Nadunget, ii) Tapak in Moroto. The multi-purpose water systems would serve to generate hydro power, water for domestic use, Small Scale Irrigation Systems (SSIS) etc. For SSIS to be optimally utilised, there should be identification of some model commercial farmers per crop and these should become the nuclei for training other farmers in order to ensure production of adequate agricultural products for domestic consumption and for the market.

Plate 5: Arachek dam in Napak

Cascading dams: Construction of cascading dams (sand dams & normal dams) along the following rivers, i) river Omaniman draining down from Mt Moroto which traverses Moroto and Napak districts in Karamoja and continues to Teso sub –region, ii) river Kanyengereng draining down from Mt. Kadam on the Amudat district side and flows through Amudat T. Council into Kenya, iii) river Lopei flowing from mt. Moroto down through Rupa and Lopei sub counties in Moroto district, Ngoleriet and Lokopo sub counties in Napak district then into Kapelebyong district in Teso, iv) river Kaabong flowing from Kapedo mountain ranges in Karenga district through Kathile S/county and Kaabong T/Council in Kasbong district, v) rivers Namatata, Amaler and Creek flowing down mt. Kadam through Namalu sub-county in Nakapiripirit district and into Teso, vi) river Lorengedwat from mt. Moroto through Lorengedwat sub county in Nabilatuk district and flowing into Teso sub-region, vii) river Kailong in Kotido district flowing through Nyakwae s/county in Abim district then Lokopo s/county in Napak district into Teso.

Sand dams: The sand dams will ensure that water recharges the underground aquifer, stops soil erosion and reduces silting in the river. In addition, it will ensure that water is available throughout the drought season. Sand dams also work as check dams especially when constructed in the young stage of the river where the river bed slope and velocity of flow are high causing riverbed and bed erosion.

Wind generators: Potential for wind energy generators was identified on 10 sites within the sub region. These sites are recommended for gardens/fields of wind generators so that higher voltage power is generated that can be used for multi-purposes (rural electrification, pumping water to elevated reservoirs, rural industries, lighting of administrative, health and education institutions as well as street lighting.

Plate 6: Southern Cross windmill in Kaabong DLG

Solar gardens: Transmission of water over a long distance through use of solar energy preferably placing them on the large dams and valley tanks in a bid to prevent /reduce evaporation losses from these reservoirs. The dry belts which could benefit from solar pwer are located in Nabilatuk sub-county and Sakaale Parish, Kosike. The large ground reservoirs (dams and valley tanks) constructed would be used to supply water for multi-purpose uses (irrigation, livestock watering and domestic).

Plate 7: Proposed solar power plants/ carbon free electricity

Bulk water transfer: Support the development of bulk water transfer across districts e.g. the proposed project to tap water from Sipi in Kween district in Sebei region to Karamoja.

8.2 Hygiene and Sanitation

Behaviour Change Communication (BCC): There is need for mind-set change amongst the Karamojang, it is proposed to use both the conventional and non-conventional strategies in hygiene and sanitation promotion. In this strategy, it is proposed to utilise the elders' forum (*ekireket*); mainly because the elders' forum is the parliament with representation of all the clans, besides it is respected and listened to. Therefore, there will be need to develop tailor made WASH communication materials in order to influence positive behaviour change which will be disseminated using the elders' forum. It is proposed that demonstration facilities of appropriate WASH technologies are constructed at the 'parliament'/shrines where important meetings take-place for various purposes. The WASH demonstration facilities will play a catalyst role in enforcing effective WASH behaviour.

Enforcement: There is a great need to re -establish and reinvigorate the LCI Courts to support enforcement of improved hygiene and sanitation practices e.g., could fine goats, chicken until the concerned individual implements the agreed action. The starting point should be the local leadership namely; LCI, VHTs who should be accountable for improved hygiene and sanitation in their respective areas. This approach should target the new leadership after this concluded 2021 elections.

Biogas from pit latrines and cow dung: Use of biogas in boarding schools has been piloted with not much success due to the interruptions of Covid19 prevention when the schools were suddenly closed. However, this technology has a lot of potential and thus should be scaled up in all institutions with boarding facilities.

Opportunities to utilise cow dung should be explored in order to ensure there is sufficient quantities of the raw material to feed the digesters. Mainly because cow dung is easily available because the Karamojong's main source of livelihood is cattle rearing.

Mini Faecal Sludge Treatment Plants: There is potential for establishing an entire FSM system for the Karamoja sub region urban areas. It is proposed to build at least two mini FSTPs in each district within the busiest urban centres. These will feed into the FSTPs which are planned to be implemented by the WSDF.

8.3 Support to Water Resources Management

There are opportunities to utilise the Catchment, Sub, catchment and Micro Management Plans in order to optimise the water and related resources' use. Also utilise the ground water maps prepared for Karamojo to guide utilisation of the underground water resources. It is proposed to use the CbIWRM as a basis for WASH implementation.

There will be need to work with Kyoga Water Management Zone (WMZ) to establish monitoring wells in strategic places within the sub-region.

8.4 Coordination issues

NDPIII programme approach offers opportunities for leveraging resources and optimising synergies. The opportunities include i) re-invigorating the DWSCC with an emphasis on increasing the role of Education departments and NGOs supporting the education sector, ii) reinvigorating the District Water Officers meetings, iii) the bi annual IDMs, iv) Strengthening the role of WMZ in promoting the implementation of CbIWRM and the related structures, v) Working with Kamaoja region WfP to improve O&M of VTs because these facilities also act as sources of water for domestic use.

9.0 STRATEGIC INVESTMENT FOR 2021 -2030

9.1 K-WASHIP Vision, Mission, Goal and Strategic Objectives

Vision: Improved quality of life and socio-economic transformation through sustainable access to and use of climate resilient water and sanitation services for all in Karamoja sub region.

Mission: To ensure sustainable and inclusive access to and use of climate smart and resilient water and sanitation services for all in Karamoja sub- region by 2030.

Goal: To improve the health and socio- economic well-being of the people of Karamoja sub region through provision of integrated & inclusive climate smart and resilient WASH services by 2030.

Strategic Objectives

SO1. To coordinate and enhance the capacity of stakeholders at the Regional, District and Sub-County levels in order to ensure effective and efficient WASH services delivery by 2030,
SO2. To support planning and development of WASH interventions in order to ensure improved livelihood of the people of Karamoja by 2030,
SO3. To promote catchment based IWRM of the available water and related resources in the sub region for accelerated socio-economic development by 2030,

SO4. To improve Monitoring Evaluation & Learning (MEL) for sustainable and climate resilient WASH services by 2030,
SO5. To contribute to resources mobilisation for increased WASH services delivery within the Karamoja sub –region by 2030.

9.2 Planning considerations and principles

Planning for the K-WASHIP is carried out within the framework of the United Nations framework for development aimed at ensuring a better and more sustainable future for all– the Sustainable Development Goals (SDGs) whose theme is "leaving no one behind" and a focus on Goal 6: Ensure availability and sustainable management of water and sanitation for all.

At the national level K-WASHIP is developed within the National Development Plan Phase Three (NDPIII); whose theme is "Sustainable industrialization, for inclusive growth, employment and sustainable wealth creation. The NDPIII Vision is "a transformed society from a peasant to a modern and prosperous country by 2040". The Goal is "Increased household income and improve quality of life – for both the citizens and refugees".

It promotes integration of innovative ways for pursuing an inclusive green path to development. NDPIII promotes collaboration and coordination of programmes which contribute towards similar outcomes in order to leverage resources and optimise synergies.

The main guiding principles and building blocks for the K-WASHIP and its implementation comprise the following;

- → Planning,
- → Water resources management (including climate change and natural resource),
- → Institutional Strengthening,
- → Policy and regulation,
- → Monitoring,
- → Learning and adaptation,
- → Infrastructure (new and capital replacements),
- → Sustainable Sanitation (whole sanitation value chain)
- → Finance,

9.2.1 SO1: To coordinate and enhance the capacity of stakeholders at the Regional, District and Sub- County levels in order to ensure effective and efficient WASH services

Component 1: Sustainable WASH systems strengthening and Capacity development

Sub-component 1.1: Institutional strengthening of RWSRC to provide Technical assistance in planning, implementation, M&E, reporting, O&M arrangements/structures for sustainable & resilient WASH services.

Output: 1.1: Sustainable WASH systems

Activities: i) Carry out Organisational Capacity Assessment (OCA) for RWSRCII to operationalise their mandate, ii) Identify opportunities for RWSRCII to profile themselves and ensure buy- in amongst stakeholders, iii) Conduct tailor made trainings/capacity development for the RWSRCII, iv) Tooling and retooling of RWRCII,

Sub-component 1.2: Stakeholder capacity development

Outputs 1.2: Stakeholder capacity to deliver sustainable WASH services enhanced

Activities: i) Disseminate the K-WASHIP, ii) Disseminate relevant WASH sector policies, strategies and guidelines, iii) Conduct stakeholder capacity to deliver sustainable WASH services, iv) Conduct tailor made capacity development, v) Support stakeholders in implementation of their respective WASH mandates, vi) Support the DLG level stakeholders to prepare and present papers during the Uganda Water and Environment Week (UWEWK) Events

Sub-component 1.3 Coordination

Outputs: Streamlined implementation of WASH programmes

Activities: i) WASH stakeholder mapping, ii) Sensitisation of stakeholders, iii) Support operationalization of the regional and district stakeholder coordination forums e.g. IDMs, DWSCC, Karamoja software & sanitation conferences iv) Coordination of the various actors involved in software activities within the Karamoja sub region.

9.2.2 Improved planning and development of WASH interventions

Component 2: Inclusive Climate Smart and Resilient Water Supply Services

Sub -component 2.1: Ensure availability of adequate, reliable and quality water resources for all uses in the Karamoja region

Output 2.1: Inclusive Climate smart WASH technologies

Activities: i) Identification, ii) Feasibility studies (include scoping study), iii) detailed design & costing (include ESIA), iv) Appraisal, v) Construction/implementation -construct cascade dam across large volume rivers, Catchment/sub –catchment water safety planning, Wind powered water systems, solar powered water systems, bulk water supply, explore ground water potential for large diameter production wells to deep seated aquifers, Rain Water Harvesting Technologies, Rock catchment, sand damming etc.

Component 2.2: Inclusive Climate Smart Sanitation and Hygiene Services,

Sub component 2.2: Safely managed sanitation and hygiene Services to HCFs and Schools.

Output 2.2: Capacity of stakeholders involved in Sanitation and Hygiene services within the Karamoja sub –region built and strengthened

i) Conduct baseline, ii) Design and cost appropriate climate smart technologies, iii) Construction/implementation of the infrastructure, iv) Support the establishment of appropriate O&M mechanism per category of facility - HH, HCF, & schools respectively.

Sub –component 2.3: Basic Sanitation and Hygiene Services at HH, and *ere* levels

i) Conduct baseline, ii) Promotion of biogas technology through use of cow dung and human waste in communities and institutions respectively, iii) Design and cost appropriate climate smart technologies, iv) Construction/implementation of the infrastructure, v) Support the establishment of appropriate O&M mechanism per category of facility - HH and *eres* respectively.

Sub-component 2.4: Mini Feacal Sludge Treatment Plants (Mini FSTP) closer to the users (HH, HCFs and Schools).

Output 2.4: Accessible Mini Feacal Sludge Treatment Plants (Mini FSTP) closer to the users (HH, HCFs and Schools) constructed

i) Conduct baseline to establish demand, ii) Carry out social marketing of the Feacal Sludge Treatment services, iii) Design and cost appropriate Mini FSTP for the region 1 per district with capacity of 250cubic metres, iv) Construction/implementation of the infrastructure (Mini FSTPs 1 per district), v) Support the establishment of appropriate O&M mechanism.

Sub-component 2.5: Appropriate promotional latrine technologies at manyata /erre level

Output 2.5: Development and promotion of appropriate latrine technologies at manyata level

i) Conduct baseline, ii) Promotion of biogas technology through use of cow dung and human waste in communities at manyata/erre level, iii) Design and cost appropriate climate smart technologies, iv) Construction/implementation of the infrastructure – 270 in total (30 per district), v) Carry out social marketing of the facilities for replication at manyata/ *erres*.

Sub-component 2.6: Hygiene promotion materials

Output 2.6: Development of appropriate and tailor-made hygiene promotional materials for the Karamoja sub-region

i) Conduct baseline, ii) Design appropriate and tailor-made hygiene promotion materials for Karamoja sub-region, iii) Disseminate and roll out the use of the materials within the region.

9.2.3 SO3: Promote catchment based IWRM of the available water and related resources in the sub region for accelerated socio-economic development by 2030.

Component 3: Promotion of catchment based IWRM

Sub-component 3.1: Well planned and managed catchment based IWRM

Output 3.1: Catchment based IWRM implemented

Activities: i) Re assess the catchment/sub catchment hot spots, ii) Quantification of the available water and related resources in the catchment, iii) Establishment of the key water users to determine demand, iv) Conducting water balance & allocation, v) Catchment/sub catchment water quality assessment, vi) Catchment protection/restoration and segment management, vii) Construction of artificial recharge facilities.

Sub-Component 3.2: Formulate projects that support alternative means of livelihoods

Output 3.2: Alternative livelihood activities in the hotspots provided

Activities: i) Identify appropriate intervention options to address the challenges in selected hotspots covering entire value chains, ii) Cost the interventions, iii) Stakeholder profiling to facilitate identification of the most suitable beneficiaries, iv) Training /capacity building of the selected stakeholder/beneficiaries, v) Development of indicators for monitoring livelihood shift, vi) Provision of extension services to support the livelihood activities across the entire value chains.

9.2.4 SO4. To improve Monitoring Evaluation & Learning (MEL) for sustainable and climate resilient WASH services by 2030

Component: 4: Monitoring Evaluation & Learning (MEL) for sustainable and climate resilient WASH services

Sub-component 4.1: Monitoring, Evaluation & Learning for sustainable and climate resilient WASH services

Output 4.1: Structured Monitoring, Evaluation &Learning

Activities: i) Development of service level indicators to determine the impact of RWRCII, ii) Harmonising and synchronising data collection & management tools i.e. technology for reporting/monitoring, Monitoring, Evaluation and Learning (MEL), iii) Collect & document BoPs being promoted by stakeholder both state and non-state actors, iv) Organise and facilitate learning and mentorship sessions within the region, v) Facilitate documentation and dissemination of BoPs in data collection & management.

Sub-component 4.2: Research and innovations

Output 4.2: Appropriate Best operational Practices (BoPs) in sustainable and resilient WASH technologies documented.

i) Identify opportunities for conducting research & innovation in WASH within the region, ii) Facilitate opportunities for collaboration with the Appropriate Technology Centre (ATC) and the Water Resources Institute (WRI) and Gulu government university to build the capacity of the Karamoja sub region stakeholders in order to address the WASH challenges in the region

Sub component 4.3: Cross cutting themes (focus on gender, environment, HiV/Aids, Covid19, equity and inclusion

Output 4.3: Sector Cross cutting themes integrated in WASH activities

Output 4.3.1 Gender mainstreaming

Activities: i) Identify the gender issues impacting both men & women's participation in WASH service delivery within the Karamoja sub region, ii) Facilitate the development of appropriate gender mainstreaming tools/messages, iii) Carry out capacity building /training in gender mainstreaming.

Output 4.3.2: Environmental protection & Climate Change

Activities: i) Conduct baseline on the environment issues affecting the region, ii) Support the DLGs and local partners to develop source protection plans for their respective facilities/areas, iii) implementation of the source protection, iii) Facilitate the development of simple Monitoring tools/indicators for measuring progress in changes.

Output 4.3.3: HiV/Aids mainstreaming

Activities: i) Conduct baseline on the issues of HIV/Aids impacting WASH services delivery within the Karamoja sub region, ii) Support the DLGs and local partners to develop HIV/Aids sensitisation messages, iii) Ensure integration of the HIV/Aids prevention in implementation, iv) Facilitate the development of simple Monitoring tools/indicators for measuring HiV/Aids mainstreaming.

Output 4.3.4 Covid19 response

Activities: i) Sensitise Karamoja sub region on the sector Covid19 prevention Standard Operating Procedures (SOPs), ii) Support the DLGs and local partners to integrate Ciovid19 prevention SoPs in all activities.

Output 4.3.5 Equity and inclusion

Activities: i) Conduct baseline on equity and inclusion in the 9 Districts to identify issues affecting WASH services delivery within the Karamoja sub-region and ensure no one is left behind, ii) Support the DLGs and local partners to develop equity activities for inclusion in their respective plans for their respective facilities/areas, iii) Ensure implementation of the equity actions, iii) Facilitate the development of simple Monitoring tools/indicators for measuring progress in changes.

9.2.5 SO5. To contribute to resources mobilisation and efficient utilisation for increased WASH services delivery within the Karamoja sub –region by 2030.

Component 5: Resources mobilisation for increased WASH services

Sub-component 5.1: Adequate resources for WASH service provision

Output 5.1: Resources for WASH services mobilised

Activities: i) Develop a resource mobilisation strategy and ensure proposal development for the technologies as highlighted under component 2, ii) Train the 9 DLGs in resource mobilisation/proposal writing, iii) Promote joint proposal writing with the 9 DLGs /NGOs/ MWE and iv) Carry out advocacy for WASH services provision for Karamoja sub region and vi) Identify at least 3-5 strategic partners to implement the strategic plan.

Sub component 5.2: Effective and efficient resources utilisation

Outputs: Resources effectively and efficiently utilised

Activities: i) Carry out an inventory of resources available for WASH programmes in Karamoja, ii) Monitor the utilisation of the resources, iii) Support WASH stakeholders in the utilisation of the WASH resources.

10.0 IMPLEMENTATION STRATEGIES AND REQUIREMENTS

10.1 Implementation approach

The RWSRCII will coordinate the operationalization of K-WASHIP. RWSRCII has resident capacity within the core staff that are relevant for the areas highlighted in line with delivering on their new core mandate as well as the strategic actions highlighted under chapter 9.2.1 above. K-WASHIP will also facilitate RWSRCII to support the respective Karamoja sub region Local Governments to meaningfully deliver the much needed water and sanitation services for the population.

It is proposed to follow a multi-pronged approach in operationalising the K-WASHIP due to a number of considerations; i) diversified funding sources from a number of partners as highlighted under chapter 7 - on stakeholder analysis, ii) The funding cycles and modalities of implementation for strategic partners vary, some require signing MoUs, others implement directly while others will transfer funds to the RWSRCII account, while some will come up as and when new partners are identified – these will be phased in when those opportunities are identified.

10.2 Human resources requirements

The main role of the RWSRCII will be to coordinate with the various strategic partners to ensure smooth and optimisation of synergies in delivering on the strategic actions highlighted under Chapter 9.1.

As indicated in Chapter 5.3, RWSRCII has adequate core staff to support the operationalization of K-WASHIP. In addition, the MWE provides the operational funds for the respective RWSRCs but do not provide resources for implementation per se. Thus K-WASHIP is a tool for resource mobilisation to support RWSRCII to position itself as a viable partner supporting to bridge the funding gap towards fulfilling the SDG target 6 and NDPIII WASH ambitions.

Furthermore, for highly specialised areas, RWSRCII will collaborate with the WRI to build the capacity of the Karamoja sub region stakeholders to implement those specialised areas.

10.3 Financing requirements for K-WASHIP

To achieve the WASH targets including the 100% WASH access by 2030 and leaving no one behind in line with the SDG agenda, there will be need for increased sub sector budget allocation as well as coordination and optimising synergies with the various WASH players supporting the Karamoja sub –region.

The cost of financing the K-WASHIP is **Eight Hundred Forty One Billion One hundred Fifteen Million Shillings (841,115bn).** This cost will be met by a number of stakeholders ranging from government (OPM, MWE) DPs (UNICEF) NGOs (WFP, C&S…) and the respective Karamoja DLGs under the DWSCG/UGIFT framework).

In the **Table 15** below the required investment over the 10-year horizon (2021 -2030). It should be noted that the costing assumes that all indicators move linearly from baseline achievements to target levels. However, in practice some may reach their targets well before 2030 while others may require a lot of funding push leading up to 2030.

Furthermore, in budgeting a physical contingency of 10% and a price contingency of 4% per annum has been taken into consideration in the price estimates.

Table 14: K-WASHIP cost estimates

	Cost Figures in UGX'000,000										
Strategic Objective	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**10-Year Total**
Component 1: Sustainable WASH systems strengthening and Capacity development	4,211.65	4,834.17	5,688.70	6,679.52	7,996.44	8,838.43	10,249.25	11,890.71	13,868.47	16,099.37	**90,356.71**
Component 2: Inclusive Climate Smart and Resilient Water Supply Services	714.94	8,683.72	1,333.44	6,873.53	9,087.54	17,937.11	18,600.88	81,893.18	134,088.95	427,975.53	**707,188.82**
Component 3: Promotion of Catchment based IWRM	555.04	634.96	726.39	830.98	950.64	1,087.52	1,244.12	1,423.27	1,628.22	1,862.67	**10,943.81**
Component: 4: Monitoring, Evaluation and Learning (MEL) for sustainable and climate resilient WASH services	1,654.64	1,892.91	2,165.49	2,477.32	2,834.05	3,242.15	3,709.02	4,243.12	4,854.13	5,553.13	**32,625.96**
Annual Cost Estimate	**7,136.27**	**16,045.76**	**9,914.02**	**16,861.36**	**20,868.67**	**31,105.22**	**33,803.28**	**99,450.28**	**154,439.77**	**451,490.70**	**841,115.33**

11.0 MONITORING EVALUATION AND LEARNING FRAMEWORK

Monitoring Evaluation and Learning (MEL) will be carried out at all levels at the DLG &/or NGO partner(s), the RWSRCII and the national level. The Sector Performance Framework will form the basis for monitoring. The reports will feed into the national level reporting, Joint Monitoring Plan/SDG reporting.

Water Supply sub sector national indicators and proposed 2030 targets

Based on the review of the National Water and Environment Sector Monitoring Framework, some few critical indicators have been selected for inclusion in the Karamoja Water Supply Strategic Investment Plan (K-WASHIP). The indicators are utilised 2020 as the baseline year in accordance with the Annual ASPR WES 2020) and proposed 2030 targets for the K-WASHIP-see **Table 16**. This table also provides an indication of the current gap in performance and the priority areas of investment for the K-WASHIP.

Table 15; Key W&E indicators

Indicator		Definition	Sub-sectors	Baseline (2020)	2025	2028	Target (2030)
Water supply	Village water supply	Percentage of villages with a source of safe water supply	Rural Water	68%	87.8%	97.7%	100%
	Basic Water	Percentage of population using improved drinking water source	Rural Water	68.0%	87.2%	96.8%	100%
			Urban Water	70.5%	88.2%	97.0%	100%
	Safely managed water	Percentage of population using safely managed drinking water services located on premises	Urban Water	57.1%	82.8%	95.7%	100%
	Functional rural water sources	Percentage of water sources functional at time of spot check	Rural Water	85%	94%	98.5%	100%
	Urban water service functionality	Percentage of piped water service availability	Urban Water	81%	92.4%	98.1%	100%
	Per Capita Investment cost	Average cost per beneficiary of new water source/ connection	One village water source	22.5	No Data (ND)	ND	100%
			Rural Water	72.6	ND	ND	100%
			Urban Water	57.1	ND	ND	100%
	Drinking water quality	% of water samples taken that comply with	Rural	59%	ND	ND	100%

		national standards (points & piped water	Urban/piped	91.6%			
Sanitation & Hygiene	Safely managed sanitation	% of population using safely managed sanitation services	Rural	7%			100%
			Urban	38.9%			
	Basic sanitation	% of population using an improved sanitation facility not shared with other households	Rural	18%			100%
			Urban	44.8%			
	Open defecation	% of population practicing open defecation	Rural	22%	ND	ND	Zero
			Urban	12.1%	ND	ND	Zero
	Hand washing at household	% of population with hand washing facilities with soap & water at home	Rural	38%	ND	ND	100%
			Urban	61.1%	ND	ND	
	Hand washing in schools	% of pupils enrolled in schools with basic hand washing facilities	Schools	58%			100%

The assumption is that the investment shall be in the proportions of 6:3:1 throughout the 10 years.

12.0 COMMUNICATION STRATEGY

Communication and Visibility (Profiling and branding)

Mind-set change is critical in order to influence change and improvement in productivity in Karamoja. Awareness raising and mobilisation through use of the elders' forum (akriket) as an entry point for reaching out to the strata of the Karamojong society. Mobilisation will also be through radios, churches and the

13.0 RISK ASSESSMENT AND MANAGEMENT

Risks and mitigation measures

Risk #1: *Political instability which could affect operationlisation of the K-WASHIP.*

Mitigation: Carry out advocacy and market the K-WASHIP among stakeholders ranging from national level agencies, CSOs and the local level so that implementation of parts of the K-WASHIP may take place regardless of the political situation.

Risk #2: *Local political leadership derailing of Programme support, cooperation and embracing.*

Mitigation: effective Programme advocacy, transparency, inculcating trust and involvement of local leadership in various Programme activities and commitments to Programme deliverables, including adoption of appropriate feasible technological options.

Risk #3: *Insecurity within the Karamoaja region due to increased cattle rustling*

Mitigation:

Risk # 4: D*epreciation of the Uganda shilling and cost overruns.*

Mitigation: Central Bank inflation targeting light monetary policy regime is intended to avert exchange rate volatilities on a monthly basis. The contract to the extent possible will be in local currencies and benefit from the exchange gains from the various DPs contributing since most of them budget in foreign currency.

Furthermore, adequate contingencies have been used to arrive at the final amounts.

Risk #5: *Behaviour change takes time*

Mitigation: Sanitation and hygiene improvements are related to behavioural change and therefore can take a much longer time. As such there will be emphasis on building the capacity of the structures responsible for hygiene and sanitation promotion at the DLG and S/C levels in order to ensure sustained efforts in behaviour change awareness raising.

14.0 ANNEXES

14.1 ToRs for the assignment

1.0 Introduction

The Rural Water Supply Department (RWSD) of ministry of water and environment coordinates utilization of a district water and sanitation grant that involves resource mobilization and allocation, technical support to districts, monitoring compliance, and capacity-building to the district local governments. In addition, the Department supports planning and development of water systems that traverse local government boundaries.

The ministry conducted a study in 2019 to reorganise TSUs, the reorganisation recommended creation of 6 Rural Water and Sanitation Regional Centers (RWSRCs).RWSRCII is part of the 6 centers and it comprises of Karamoja (9districts) and Teso (10districts) all together making 19 districts. Districts in Karamoja are: - Abim, Amudat, Kaabong, Karenga, Kotido, Moroto, Nabilatuk, Nakapiripirit, Napak.

The mandate of RWSRCs is to guide in first and foremost to guide in planning and development including Operation and Maintenance of WASH facilities, the other one is to develop capacity and offer continued support to local governments, WASH partners and private sector.

In a bid to enhance proper planning for water supply and sanitation services in the region, the RWSRCII intends to develop a strategic investment plan for the region taking into account the broad sector strategic directions and other national and international commitments such as SDG6, NDPIII, and Vision 2040.

As of June 2019, 654 villages in Karamoja were reported to have no single source of water.

2.0 Rationale for developing WASH strategic Investment Plan

Achieving universal access to safe water by 2030 requires coordinated efforts of all sector players.

Water for People (WFP) piloted the use of District Investment planning in Uganda in Kamwenge. Due to successful lessons from using this approach to identify unserved population and guide planning, the ministry of Water and Environment (MWE) adopted the approach. MWE in close collaboration and partnership with WFP, conducted District Investment planning in 2016 in almost all the districts in Uganda. It was only Amuria district in RWSRCII that missed on the exercise due to unresponsiveness from the district. Four new districts have been created, namely: Nabilatuk, Karenga, Kapelebyong and Kalaki, and so creating a need to conduct the District level investment planning for the new districts and as well update the Investment plan for the others conducted four years ago. The results of which shall be consolidated to guide a more coordinated planning, implementation as well as advocacy at regional level.

Recently still, WFP took the efforts a notch higher by piloting a complimentary approach of Asset Analysis. The exercise was rolled out to Napak district and the results provided a proper and accurate register of all the WASH infrastructure in Napak, their level of functionality with

associated risks due age and physical state, level of water service provision each facility offers and the capital cost required for maintenance of all the facilities(CAPMANEX). Translating these vital analysed data set and output into a strategic plan will go a long way in having a reference document for advocacy, planning and implementation monitoring.

The ministry developed a national level Water and Environment strategic investment plan which is quite broad, for precision in the approach based on local conditions in each region, there is need to utilise the output of the efforts so far invested through District Investment Planning and Asset Analysis to develop a more accurate and localised strategic WASH investment plan for Karamoja Sub Regions.

Regional centres have no funding except Government of Uganda allocation for salaries and operations of the regional centres. Regional centres have been tasked to develop proposals for funding. A strategic WASH investment plan will be a vital tool for resource mobilisation.

3.0 Objective of the assignment

The overall objective is to develop a strategic WASH investment plan for Rural Water and sanitation regional centre II, (Karamoja districts) working closely with the existing expertise of the RWSC staff.

3.1 Specific Objectives

i) To carryout situational analysis for WASH service delivery based on SDG indicators, pointing out existing gaps in service delivery.
ii) To identify sustainable implementation methodologies and financial requirements in delivering WASH services to everyone forever by 2030.
iii) To identify stakeholders and funding opportunities for the implementation of the strategic WASH investment plan for RWSRC II.

4.0 Methodology

A consultant will be engaged to work with the regional centre staff to develop the strategic investment plan.

The consultant will carry out desk review of key sector documents and also will look at the WASH sector horizon to develop a landscape for implementation.

The consultant will carry out stakeholder consultation in each district and review District investment Plans, Asset Analysis Reports and any other plans of WASH partners in the region to identify opportunities for synergies.

Due to COVID 19 restrictions, the consultant together with the Regional Centre Staff will travel to each district and have two sessions with the district officials, one will be strategic one in the morning and the other in the afternoon. Expected participants include the District Water officer, the district planner, the district chairperson, Chief Administrative officer, District Community Development officer and District health Officer. In addition selected

representatives of WASH partners shall be invited to participate. The number of participants shall not exceed 15 and the engagement will follow the standard Operating Procedures.

The consultant shall collect information and compile the information obtained and make use in the development of the strategic investment plan. The consultant shall engage with other ministry officials and regional centre to review of the draft strategic plan before final document is approved.

5.0 Qualification of the Individual Consultant

The consultant should have a Master's Degree in Economics, Business Administration, Development Studies or Engineering.

S/he should have experience in the water sector and should have a team of professionals that can deliver the task.

The consultant should have sound knowledge about the sector and should have experience working in the water sector for over 10 years.

5.0 Time frame

The time frame for developing the Strategic WASH Investment Plan is 4 weeks, starting August 2020.

6.0 Budget

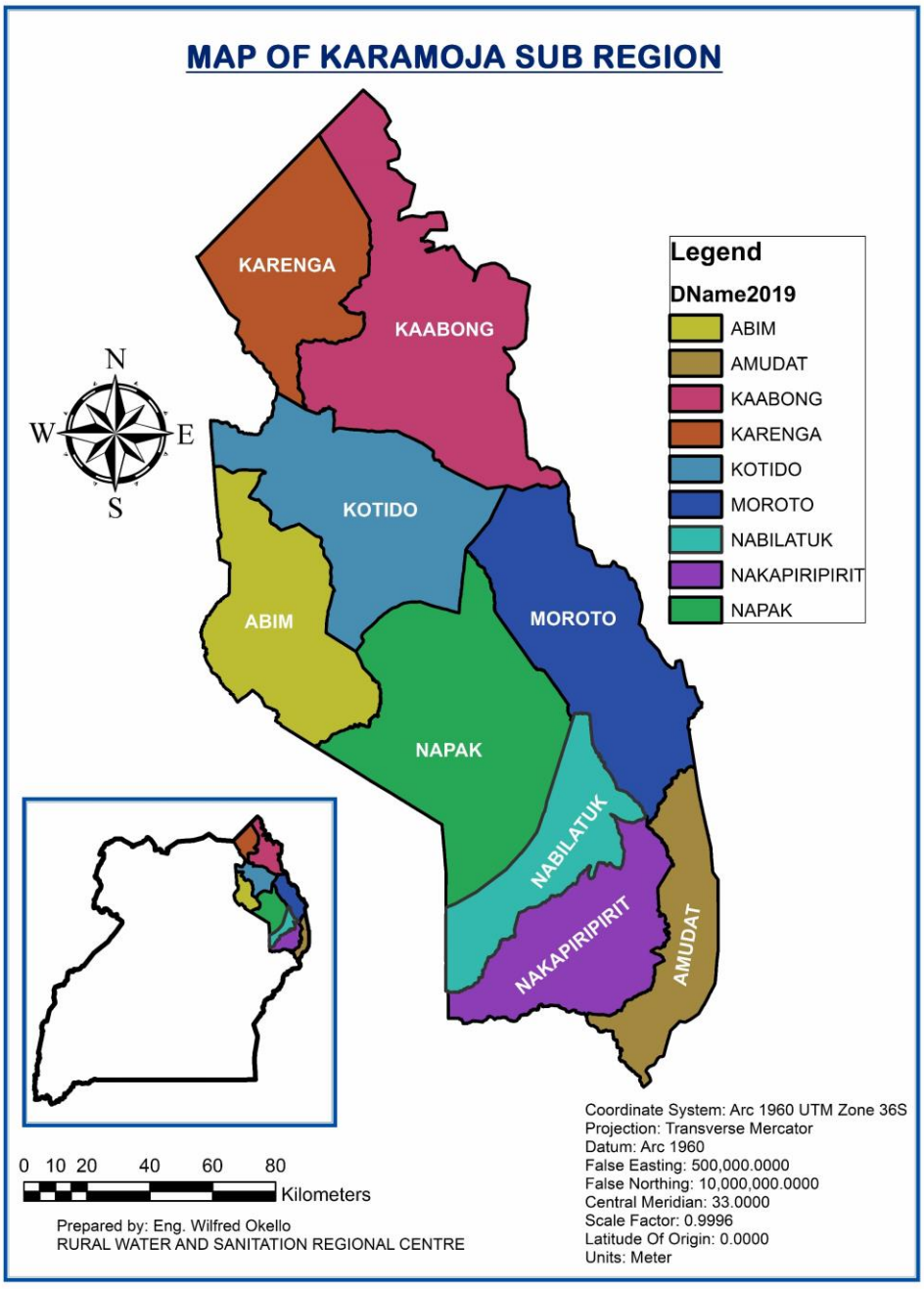
The consultant shall present a budget clearly showing the number of days for 2 key team members- the team leader and economists/ financial analyst. In the format below;

No	Cost Item	Unit	Quantity	Rate	Amount
A	**Professional Fees**				
A1					
B	**Reimbursables**				
B1	*Secretarial Work*				
B2	*Lodging and transport*				
	TOTAL				

6.0 Expected Output

Soft copy and Hard copy of the Strategic WASH Investment plan for the Karamoja sub region.

14.2 Map of Karamoja



14.3 RWSRCII operational costs

OPERATIONAL BUDGET FOR RURAL WATER REGIONAL CENTRE					
OPERATIONAL FUNDS					
TRANSPORTATION					
Details	**Unit**	**Vehicles**	**Rate**	**Annual Frequency**	**Amount**
Fuel (monthly)	Vehicles	4	2,000,000	12	96,000,000
Vehicle service (quarterly)	Vehicles	4	400,000	4	6,400,000
Tyres (Semi- Annually)	Vehicles	4	2,400,000	2	19,200,000
Vehicle repair (Quarterly)	Vehicles	4	1,500,000	4	24,000,000
TOTAL TRANSPORTATION					**145,600,000**
OFFICE CONSUMABLES & MAINTENANCE					
Details	**Unit**	**Qty**	**Rate**	**Annual Frequency**	**Amount**
Stationary	Item	1	500,000	12	6,000,000
Cartridges	Item	1	350,000	12	4,200,000
Assorted Office consumables	Item	1	500,000	12	6,000,000
Office maintenance	Item	1	500,000	12	6,000,000
Maintenance of Office items	Item	1	800,000	12	9,600,000
Utility- Water	Item	1	100,000	12	1,200,000
Utility - Electricity	Item	1	200,000	12	2,400,000
Utility- Internet	Item	1	350,000	12	4,200,000
Utility- Telephone	Item	1	300,000	12	3,600,000
TOTAL OFFICE ITEMS					**43,200,000**
MONTHLY STAFFF TAVEL ALLOWANCE					
ENGINEERING TEAM	**No of Staff**	**Nights**	**Rate**	**Annual Frequency**	**Total**

Principal Engineer- U2Sc	1	15	120,000	12	21,600,000
Senior Engineer -U3Sc	1	15	110,000	12	19,800,000
Engineer- U4Sc	2	15	110,000	12	39,600,000
Hydrogeologists-U4Sc	1	15	110,000	12	19,800,000
Surveyor- U4Sc	0	15	110,000	12	-
Draughtsman- U5Sc	0	15	110,000	12	-
Sub Total Eng.					**100,800,000**
SANITATION AND HYGIENE					
Senior EHO-U3Sc	1	15	110,000	12	19,800,000
EHO- U4Sc	2	15	110,000	12	39,600,000
Sub total San & Hygiene					**59,400,000**
SOCIAL MOBILISATION	**No of Staff**	**Nights**	**Rate**	**Annual Frequency**	**Total**
Senior Sociologist- U3	1	15	110,000	12	19,800,000
Sociologist- U4	2	15	110,000	12	39,600,000
Social Scientist- U4L	1	15	110,000	12	19,800,000
Sub total Social Mob					**79,200,000**
ADMINISTRATION	**No of Staff**	**Nights**	**Rate**	**Annual Frequency**	**Total**
Senior Administrator- U3	1	15	110,000	12	19,800,000
Accontant- U4	1	15	110,000	12	19,800,000
Procurement officer- U4	1	15	110,000	12	19,800,000
IT officer- U4Sc	1	15	110,000	12	19,800,000

M&E Officer- U4	1	15	110,000	12	19,800,000
Secretary- U6	1	15	55,000	12	9,900,000
Driver- U8	4	15	55,000	12	39,600,000
Sub Total Admin					**148,500,000**
GRAND TOTAL OPERATIONAL BUDGET					**576,700,000**

14.4: Detailed Cost Estimates for the 10 year period 2021-2030

1	Figures in UGX '000,000:											
Cost Centres		**Base amount**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	10-Year Total
Component 1: Sustainable WASH systems strengthening and Capacity development													
Sub component 1.1: Institutional strengthening of RWSRCII: **Activity i) Carry out Organisational Capacity Assessment (OCA) for the RWSRCII to operationalise their mandate,**	Base rate:	45	45	49.68	49.68	49.68	49.68	49.68	54.85	54.85	54.85	54.85	
	Quantity: 2 times 2021 & 2026	2	1	0	0	0	0	1	0	0	0	0	
	Current rate	**90**	**45**	**0**	**0**	**0**	**0**	**49.68**	**0**	**0**	**0**	**0**	
	10% Contingency		4.5	0	0	0	0	4.97	0	0	0	0	
	4% Price adjustment		0.18	0	0	0	0	0.20	0	0	0	0	
	Annual Budget		**49.68**	**0**	**0**	**0**	**0**	**54.85**	**0**	**0**	**0**	**0**	**104.5**
Sub-component 1.1: Institutional strengthening of RWSRCII: **Activity ii) Profiling of RWSRCII for visibility amongst stakeholders,**	Base rate: 5m	5	5	5.52	6.09	6.73	7.43	8.20	9.05	9.99	11.03	12.18	
	Quantity:	10	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	Current rate		**5**	**5.52**	**6.09**	**6.73**	**7.43**	**8.20**	**9.05**	**9.99**	**11.03**	**12.18**	
	10% Contingency		0.5	0.55	0.61	0.67	0.74	0.82	0.91	1.00	1.10	1.22	
	4% Price adjustment		0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.05	
	Annual Budget		**5.52**	**6.09**	**6.73**	**7.43**	**8.20**	**9.05**	**9.99**	**11.03**	**12.18**	**13.45**	**89.68**
Sub-component 1.1 Capacity development for the RWSRCII staff: Activity iii) Conduct tailor made	Base Rate: 200m	200	200	228.8	261.7	299.4	342.6	391.9	448.3	512.9	586.7	671.2	

trainings/capacity development for the RWSRCII staff,	Quantity: Lumpsum												
	Current Rate		200	228.8	261.7	299.4	342.6	391.9	448.3	512.9	586.7	671.2	
	10% Contingency												
	4% Price adjustment												
	Annual Budget		**200**	**228.8**	**261.7**	**299.4**	**342.6**	**391.9**	**448.3**	**512.9**	**586.7**	**671.2**	3,943.57
Sub-component 1.1 Activity iv)Tooling and retooling of RWRCII,	Base rate: 300m		300	343.2	392.6	449.2	513.8	587.8	672.5	769.3	880.1	1006.8	
	Quantity: Lumpsum												
	Current Rate		**300**	**343.20**	**392.62**	**449.16**	**513.84**	**587.83**	**672.48**	**769.31**	**880.09**	**1,006.83**	
	10% Contingency												
	4% Price adjustment												
	Annual Budget		300	343.20	392.62	449.16	513.84	587.83	672.48	769.31	880.09	1,006.83	5,915.36
Sub-component 1.2: Local stakeholder capacity development													
Sub-component 1.2: Stakeholder capacity development Activity i) Disseminate the K-WASHIP,	Base Rate: 100m	100	100	116.60	135.96	158.52	184.84	215.52	251.30	293.01	341.66	398.37	
	Quantity: 9 districts		9	9	9	9	9	9	9	9	9	9	
	Current Rate		900	1049	1224	1427	1664	1940	2262	2637	3075	3585	
	10% Contingency		90	105	122	143	166	194	226	264	307	359	
	4% Price adjustment		3.6	4	5	6	7	8	9	11	12	14	
	Annual Budget		993.6	1158.54	1350.85	1575.10	1836.56	2141.43	2496.91	2911.40	3394.69	3958.21	21,817.29

Sub-component 1.2: Activity ii) Disseminate relevant WASH sector policies, strategies and guidelines,	Base Rate:	20	20	22.08	22.08	24.38	24.38	26.91	26.91	29.71	29.71	32.80	
	Quantity: 5 times as & when appropriate	5	1	0	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	
	Current Rate		20	0	22.08	0.00	24.38	0.00	26.91	0.00	29.71	0.00	
	10% Contingency		2	0	2.21	0.00	2.44	0.00	2.69	0.00	2.97	0.00	
	4% Price adjustment		0.08	0	0.09	0.00	0.10	0.00	0.11	0.00	0.12	0.00	
	Annual Budget		22.08	0	24.38	0.00	26.91	0.00	29.71	0.00	32.80	0.00	135.88
Sub-component 1.2: Support stakeholders in implementation of their respective WASH mandates.	Base rate: 8m	8	8	17.664	39.002	86.116	190.145	190.145	190.145	190.145	190.14	190.14	
Activity: Profiling & strengthening Software implementation iv) Coordination of the various actors involved in software activities within the Karamoja sub region.	Quantity: 2 times per year for 5 years		2	2	2	2	2	0	0	0	0	0	
	Current rate		16	35.33	78.00	172.23	380.29	0	0	0	0	0	
	10% Contingency		1.6	3.53	7.80	17.22	38.03	0	0	0	0	0	
	4% Price adjustment		0.064	0.14	0.31	0.69	1.52	0	0	0	0	0	
	Annual Budget		17.664	39.00	86.12	190.15	419.84	0	0	0	0	0	752.77
Sub component 1.2: Activity: ii) Support stakeholders to prepare and present papers in the Annual Water Week activities/conference	Base rate: 10m	10	10	11.66	13.60	15.85	18.48	21.55	25.13	29.30	34.17	39.84	
	Quantity: 6 times 4 participants per DLG		216	216	216	216	216	216	216	216	216	216	
	Current rate		2,160.0	2,518.6	2,936.6	3,424.1	3,992.5	4,655.3	5,428.1	6,329.1	7,379.8	8,604.8	

	10% Contingency		216.0	251.9	293.7	342.4	399.3	465.5	542.8	632.9	738.0	860.5	
	4% Price adjustment		8.6	10.1	11.7	13.7	16.0	18.6	21.7	25.3	29.5	34.4	
	Annual Budget		2,384.6	2,780.5	3,242.1	3,780.2	4,407.8	5,139.4	5,992.6	6,987.4	8,147.3	9,499.7	52,361.5
Sub-component 1.2: Tooling DLGs: Activity iii) Procure down the hole cameras to facilitate water monitoring at DLG	Base rate: 10m	10	10	11.7	13.6	15.9	18.5	21.6	25.1	29.3	34.2	39.8	
	Quantity: 1 per DLG total of 9 DLGs		9	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
	Current rate		90	104.9	122.4	142.7	166.4	194.0	226.2	263.7	307.5	358.5	
	10% Contingency		9	10.5	12.2	14.3	16.6	19.4	22.6	26.4	30.7	35.9	
	4% Price adjustment		0.36	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.4	
	Annual Budget		99.36	115.9	135.1	157.5	183.7	214.1	249.7	291.1	339.5	395.8	2,181.73
Sub-component 1.3 Coordination													
Sub-component 1.3: Coordination: Activity iii) Support operationalization of the regional and district stakeholder coordination forums e.g. (Inter District Meetings (IDMs), District Water and Sanitation Coordination Committees (DWSCCs) or its successor, Karamoja sanitation conferences	Base Rate: 63m	63	63	73.46	85.65	99.87	116.45	135.78	158.32	184.60	215.24	250.97	
	Quantity: twice a year for 10 years		2	2	2	2	2	2	2	2	2	2	
	Current Rate		126	146.92	171.30	199.74	232.90	271.56	316.64	369.20	430.49	501.95	
	10% Contingency		12.6	14.69	17.13	19.97	23.29	27.16	31.66	36.92	43.05	50.19	

	4% Price adjustment		0.50	0.59	0.69	0.80	0.93	1.09	1.27	1.48	1.72	2.01	
	Annual Budget		139.10	162.20	189.12	220.51	257.12	299.80	349.57	407.60	475.26	5541.5	3,054.42
Component 2: Inclusive Climate Smart and Resilient Water Supply Services													
Sub-component 2.1: Ensure availability of adequate, reliable and quality water resources for all uses in the Karamoja region	Base Rate: 3000m	3,000	3,000	3,432	3,926	4,492	5,138	5,878	6,725	7,693	8,801	10,068	
Activities: Cascading dams: i) Identification, ii) Feasibility studies (include scoping study), iii) detailed design & costing (include Environment Strategic Impact Assessment (ESIA), iv) Appraisal, Water infrastructure investment: 8 cascading dams on two rivers traversing 4 DLGs	Quantity: 8			1		1		2		2	1	1	
	Current Rate		**-**	**3,432.00**	**-**	**4,491.58**	**-**	**11,756.59**	**-**	**15,386.27**	**8,800.95**	**10,068.28**	
	10% Contingency		-	343.20	-	449.16	-	1,175.66	-	1,538.63	880.09	1,006.83	
	4% Price adjustment		-	13.73	-	17.97	-	47.03	-	61.55	35.20	40.27	
	Annual Budget		**-**	**3,788.93**	**-**	**4,958.71**	**-**	**12,979.28**	**-**	**16,986.44**	**9,716.25**	**11,115.39**	59,544.99
Sub-component 2.1: Activities: Large Gravity Flow Systems: i) Identification, ii) Feasibility studies (include scoping study), iii) detailed design & costing (include Environment Strategic Impact Assessment (ESIA), iv) Appraisal, v) Water infrastructure: 3 LGFS also traversing 5 DLGs	Unit Rate: 3,000m	3,000	3,000	3,432	3,926	4,492	5,138	5,878	6,725	7,693	8,801	10,068	
	Quantity:			1			1			1			
	Current Rate		**0**	**3432**	**0**	**0**	**5138.36975**	**0**	**0**	**7693.13**	**0**	**0**	
	10% Contingency		0	343.2	0	0	513.83	0	0	769.313	0	0	
	4% Price adjustment		0	13.728	0	0	20.553	0	0	30.772	0	0	

	Annual Budget		**0**	**3788.928**	**0**	**0**	**5672.76021**	**0**	**0**	**8493.22**	**0**	**0**	17,954.91
Sub-component 2.1: Activities: RWHTs: i) Identification, ii) Feasibility studies (include scoping study), iii) detailed design & costing (include Environment Strategic Impact Assessment (ESIA), iv) Appraisal, v) Water infrastructure: 100 Rain Water Harvesting Systems in institutions as supplementary technologies.	Unit Rate: 30m	30	30	34.32	39.26	44.92	51.38	58.78	67.25	76.93	88.01	100.68	
100 RWHTs in above and underground tanks fitted with a pump 50cubic metres	Quantity: 100		10	10	10	10	10	10	10	10	10	10	
	Current Rate		**300**	**343.2**	**392.6**	**449.2**	**513.8**	**587.8**	**672.5**	**769.3**	**880.1**	**1006.8**	
	10% Contingency		30	34.3	39.3	44.9	51.4	58.8	67.2	76.9	88.0	100.7	
	4% Price adjustment		1.2	1.4	1.6	1.8	2.1	2.4	2.7	3.1	3.5	4.0	
	Annual Budget		**331.2**	**378.9**	**433.5**	**495.9**	**567.3**	**649.0**	**742.4**	**849.3**	**971.6**	**1111.5**	6,530.56
Sub -component 2.2: Inclusive Climate Smart Sanitation and Hygiene Services													
Sub-component 2.2: Safely managed sanitation and hygiene Services at HH, HCFs and Schools. Activity i)i) Conduct baseline to establish demand, ii) Carry out social marketing of the HH/manyata level latrines iii) 60 Public latrines in each S/county, trading centres highway sanitation facilities and establish a management structure that ensures enforcement in order to utilise them optimally. Emptiable of water borne toilet	Base rate 50m	50	50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	
	Quantity: 60		6	6	6	6	6	6	6	6	6	6	
	Current Rate		300	343.20	392.62	449.16	513.84	587.83	672.48	769.31	880.09	1,006.83	
	10% Contingency		30	34.32	39.26	44.92	51.38	58.78	67.25	76.93	88.01	100.68	
	4% Price adjustment		1.2	1.37	1.57	1.80	2.06	2.35	2.69	3.08	3.52	4.03	
	Annual Budget		331.2	378.89	433.45	495.87	567.28	648.96	742.41	849.32	971.62	1,111.54	6,530.56
Sub-component 2.2: Basic Sanitation and Hygiene Services at HH, and *erre* levels													

	Unit Rate:15m for 5 stance latrine & 25m for 10,000 litres of biogas 25m total of 40m per unit		40	45.8	52.3	59.9	68.5	78.4	89.7	102.6	117.3	134.2	
Sub -component 2.2: Activities: Basic Sanitation and Hygiene Services at HH, and *erre* levels i) Construction of biogas latrines through use of cow dung and human faeces for institutions such as boarding schools, Health Units, Prisons, weekly markets.	Quantity - 28 biogas latrines		0	2	3	4	4	4	4	2	2	3	
	Current Rate		0	91.52	157.05	239.55	274.05	313.51	358.65	205.15	234.69	402.73	
	10% Contingency		0	5	17	78	356	1,621	11,090	37,929	86,478	295,756	
	4% Price adjustment		0	2	7	31	142	649	4,436	15,172	34,591	118,302	
	Annual Budget		**0**	**98.52**	**181.0**	**348.6**	**772.0**	**2,583.5**	**15,884.7**	**53,306.2**	**121,303.7**	**414,460.7**	608,938.90

Sub-component 2.2: Activity: Mini FSTP i) Conduct baseline to establish demand, ii) Carry out social marketing of the Feacal Sludge Treatment services, iii) Design and cost appropriate Mini FSTP for the region 1 per district with capacity of 250cubic metres, iv) Construction of : 20 Mini faecal sludge plants minimum of 2 per district + (2 extra) with capacity of 250cubic metres		150	150	171.60	196.31	224.58	256.92	293.91	336.24	384.66	440.05	503.41	
	Quantity - 20			1	1	2	5	3	3	3	2		
	Current Rate		0	171.60	196.31	449.16	1284.59	881.74	1008.72	1153.97	880.09	0.00	
	10% Contingency		0	17.16	19.63	44.92	128.46	88.17	100.87	115.40	88.01	0.00	
	4% Price adjustment		0	0.69	0.79	1.80	5.14	3.53	4.03	4.62	3.52	0.00	
	Annual Budget		**0**	**189.45**	**216.73**	**495.87**	**1418.19**	**973.45**	**1113.62**	**1273.98**	**971.62**	**0.00**	6,652.91
Sub-component 2.2: Activity: 270 latrines in each manyata, 1 per manyata – there about 30 manyatas in each district	Base rate 1m	1	1	1.14	1.31	1.50	1.71	1.96	2.24	2.56	2.93	3.36	
	Quantity: 270		27	27	27	27	27	27	27	27	27	27	
	Current rate		27	30.89	35.34	40.42	46.25	52.90	60.52	69.24	79.21	90.61	
	10% Contingency		2.7	3.09	3.53	4.04	4.62	5.29	6.05	6.92	7.92	9.06	

	4% Price adjustment		0.11	0.12	0.14	0.16	0.18	0.21	0.24	0.28	0.32	0.36	
	Annual Budget		**29.81**	**34.10**	**39.01**	**44.63**	**51.05**	**58.41**	**66.82**	**76.44**	**87.45**	**100.04**	587.75
Sub-component 2.2: Activity: 100 sets of Hygiene promotions through development of IEC materials, construction of HWF at the S/C headquarters and elders shrines, big markets	Unit Rate: 2m per district procured in lumpsum	18	20.59	23.56	26.95	30.83	35.27	40.35	46.16	52.81	60.41	69.11	
	Quantity: 100 sets for sharing amongst the 9 DLGs +e RWSRCII	1	1	1	1	1	1	1	1	1	1	1	
	Current Rate	18	20.59	23.56	26.95	30.83	35.27	40.35	46.16	52.81	60.41	69.11	
	10% Contingency	1.8	2.06	2.36	2.69	3.08	3.53	4.03	4.62	5.28	6.04	6.91	
	4% Price adjustment	0.07	0.08	0.09	0.11	0.12	0.14	0.16	0.18	0.21	0.24	0.28	
	Annual Budget	19.87	22.73	26.01	29.75	34.04	38.94	44.54	50.96	58.30	66.69	76.30	448.26
Component 3: Promotion of Catchment based IWRM													
Sub-component 3.1: Well planned and managed catchment based IWRM **Activities: i) Re assess the catchment/sub catchment hot spots, ii) Quantification of the available water in the catchment/sub-catchment, iii) Establishment of the key water users to determine demand, iv) Conducting water balance & allocation, v) Catchment/sub catchment water quality assessment, vi) Catchment protection/restoration and segment management, vii) Construction of artificial recharge facilities.**	Base rate: 50m	50	50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	
	Quantity: 10 sub catchments	1	1	1	1	1	1	1	1	1	1	1	
	Current rate		50	57.20	65.44	74.86	85.64	97.97	112.08	128.22	146.68	167.80	
	10% Contingency		5	5.72	6.54	7.49	8.56	9.80	11.21	12.82	14.67	16.78	
	4% Price adjustment		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
	Annual Budget		55.04	62.96	72.02	82.39	94.24	107.81	123.33	141.08	161.39	184.63	1,084.88
Sub-component 3.2: Formulate projects that support alternative means of livelihoods.	Base rate: 500m	500	500	572	654.4	748.6	856.4	979.7	1120.8	1282.2	1466.8	1678.0	

Activities: i) Identify appropriate intervention options to address the challenges in selected hotspots covering entire value chains, ii) Cost the interventions, iii) Stakeholder profiling to facilitate identification of the most suitable beneficiaries, iv) Training /capacity building of the selected stakeholder/beneficiaries, v) Development of indicators for monitoring livelihood shift, vi) Provision of extension services to support the livelihood activities across the entire value chains.	Quantity: Lumpsum												
	Current rate												
	10% Contingency												
	4% Price adjustment												
	Annual Budget		**500**	**572**	**654**	**749**	**856**	**980**	**1,121**	**1,282**	**1,467**	**1,678**	9,858.93
Component: 4: Monitoring, Evaluation and Learning (MEL) for sustainable and climate resilient WASH services													
Sub-component 4.1: Monitoring, Evaluation and Learning for sustainable and climate resilient WASH services.	Base rate: 150m	150	150	171.6	196.3	224.6	256.9	293.9	336.2	384.7	440.0	503.4	
Activities i) Development of service level indicators to determine the impact of RWRCII, ii) Harmonising and synchronising data collection & management tools i.e. technology for reporting/monitoring, Monitoring, Evaluation and Learning (MEL), iii) Collect & document BoPs being promoted by stakeholders - both state and non-state actors, iv) Organise and facilitate learning and mentorship sessions within the region, v) Facilitate documentation and dissemination of BoPs in data collection & management.	Quantity: Lumpsum & activities are linked												
	Current rate												
	10% Contingency												
	4% Price adjustment												
	Annual Budget		150	171.6	196.31	224.58	256.92	293.91	336.24	384.66	440.05	503.41	2,957.68
Sub-component 4.2: Research and innovations													

Sub-**component 4.2: Research and innovations: Activity i)**	Base Rate: 250m	250	250	286	327.18	374.30	428.20	489.86	560.40	641.09	733.41	839.02	
	Quantity: Lumpsum												
	Current Rate												
	10% Contingency												
	4% Price adjustment												
	Annual Budget		**250**	**286**	**327.2**	**374.3**	**428.2**	**489.9**	**560.4**	**641.1**	**733.4**	**839.0**	4,929.47
Sub-component 4.3: Sector Cross cutting themes integrated in WASH activities - focus on gender, environment, HiV/Aids, Covid19, equity- leaving no one behind													
Sub-component 4.3.1 Gender mainstreaming:		**Base amount**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	
Activities: i) Identify the gender issues impacting both men & women's participation in WASH service delivery within the Karamoja sub region, ii) Facilitate the development of appropriate gender mainstreaming tools/messages, iii) Carry out capacity building /training in gender mainstreaming.	Unit rate: 50m	50	50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	
	Quantity: Lumpsum												
	Current Rate												
	10% Contingency												
	4% Price adjustment												
	Annual Budget		50.0	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	985.9
Sub-component 4.3.2: Environmental protection & Climate Change	**Base rate: 50m**	**50**	50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	
Activities; i) Conduct baseline on the environment and Climate Change (CC) issues affecting the region, ii) Support the DLGs and local partners to develop source protection plans for their respective facilities/areas, iii) implementation of the source protection, iii) Facilitate the development of simple Monitoring tools/indicators for measuring progress in changes.	**Quantity: Lumpsum**												

	Current rate												
	10% Contingency												
	4% Price adjustment												
	Annual budget		50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	985.89
Sub-component 4.3.3: HiV/Aids,	Base rate: 50m	**50**	50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	
Activities: i) Conduct baseline on the issues of HIV/Aids impacting WASH services delivery within the Karamoja sub region, ii) Support the DLGs and local partners to develop HIV/Aids sensitisation messages, iii) Ensure integration of the HIV/Aids prevention in implementation, iv) Facilitate the development of simple Monitoring tools/indicators for measuring HiV/Aids mainstreaming.	Quantity: Lumpsum												
	Current rate												
	10% Contingency												
	4% Price adjustment												
	Annual budget		50	57.2	65.44	74.86	85.64	97.97	112.08	128.22	146.68	167.80	985.89
Sub-component 4.3.4: Covid19,	Base rate	**100**	100	114.4	130.9	149.7	171.3	195.9	224.2	256.4	293.4	335.6	
Activities: i) Sensitise Karamoja sub region stakeholders on the sector Covid19 prevention Standard Operating Procedures (SOPs), ii) Support the DLGs and local partners to integrate Covid19 prevention SoPs in all activities.	Quantity	**9**	9	9	9	9	9	9	9	9	9	9	
	Current Rate		900	1,029.60	1,177.86	1,347.47	1,541.51	1,763.49	2,017.43	2,307.94	2,640.28	3,020.49	
	10% Contingency		90	102.96	117.79	134.75	154.15	176.35	201.74	230.79	264.03	302.05	
	4% Price adjustment		3.6	4.12	4.71	5.39	6.17	7.05	8.07	9.23	10.56	12.08	
	Annual budget		993.6	1,136.68	1,300.36	1,487.61	1,701.83	1,946.89	2,227.24	2,547.97	2,914.87	3,334.62	19,591.67

Output 4.3.5 Equity and Inclusion													
Sub-component 4.3.5: Equity and Inclusion Activities: i) Conduct baseline on equity issues affecting WASH services delivery within the Karamoja sub-region, ii) Support the DLGs and local partners to develop equity activities for inclusion in their respective plans for their respective facilities/areas, iii) Ensure implementation of the equity actions, iii) Facilitate the development of simple Monitoring tools/indicators for measuring progress in changes.	**Base rate: 50m**	**50**	50	57.2	65.4	74.9	85.6	98.0	112.1	128.2	146.7	167.8	
	Quantity: Lumpsum												
	Current Rate												
	10% Contingency												
	4% Price adjustment												
	Annual budget		50	57.2	65.44	74.86	85.64	97.97	112.08	128.22	146.68	167.80	985.89
Component 5: Resources mobilisation for increased WASH services													
Sub-component 5.1: Adequate resources for WASH service provision: Activities: i) Develop proposals for the technologies as highlighted under component 2 & 3, ii) Train the 9 DLGs in resource mobilisation/proposal writing, iii) Promote joint proposal writing with the 9 DLGs /NGOs/ MWE and iv) Carry out advocacy for WASH services provision for Karamoja sub region.	Unit rate: 50m	**50**	50	57.2	65.44	74.86	85.64	97.97	112.08	128.22	146.68	167.80	
	Quantity: lumpsum												
	Current Rate												
	10% Contingency												
	4% Price adjustment												
	Annual budget	**50**	**50**	**57.2**	**65.44**	**74.86**	**85.64**	**97.97**	**112.08**	**128.22**	**146.68**	**167.80**	985.89
Sub component 5.2: Effective and efficient resources utilisation: Activities: i) Carry out an inventory of resources available for WASH programmes in Karamoja, ii) Monitor the utilisation of the resources, iii) Support WASH stakeholders in the utilisation of the WASH resources.	Unit rate: 10m	**10**	10	11.4	13.1	15.0	17.1	19.6	22.4	25.6	29.3	33.6	
	Quantity: 9 Inventories for the 9 DLGs	**9**	1	1	1	1	1	1	1	1	1	1	
	Current Rate		10	11.44	13.09	14.97	17.13	19.59	22.42	25.64	29.34	33.56	
	10% Contingency		1	1.14	1.31	1.50	1.71	1.96	2.24	2.56	2.93	3.36	
	4% Price adjustment		0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.13	
	Annual budget		11.04	12.63	14.45	16.53	18.91	21.63	24.75	28.31	32.39	37.05	217.69
	Grant Total		7,136.27	16,045.76	9,914.02	16,861.36	20,868.67	31,105.22	33,803.28	99,450.28	154,439.77	451,490.70	841,115.33