

REPUBLIC OF UGANDA

OFFICE OF THE PRIME MINISTER

EVALUATION OF GOVERNMENT OF UGANDA'S (GOU) RURAL WATER SUPPLY AND SANITATION PROGRAMME (RWSSP)

DRAFT FINAL REPORT (Volume I)

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Executive Summary

Introduction

The Rural Water Supply and Sanitation Programme (RWSSP) was designed to support the local governments, NGOs, humanitarian organizations and CBOs to build capacity for efficient and effective service delivery in the water and sanitation sector.

As of June 2016, the population with access to safe water in the rural areas was only 67%, and in urban areas only 71%. The functionality of the former has decreased from 88% in June 2015 to 86% in June 2016. The current water and sanitation sector performance trends suggest that resource allocations and releases to the sector are not translating into desired results in terms of efficiency of delivery and functionality of facilities. The sector continues to face challenges such as inadequate and inequitable coverage of facilities, low functionality of installed facilities, poor Operation and Maintenance (O&M) of the facilities, and persistent poor quality of water. These challenges are attributed to inadequate financial resources at the district level to conduct major repairs and for the few (repairs), which are done, are outsourced to the private sector whose procurement processes are too long to be desired. It is because of the above that Government of Uganda sought the services of an independent consultant to evaluate the RWSSP. The evaluation will not only provide accountability but also learning and replication of good practices in future rural water supply and sanitation programmes.

The evaluation sought the following objectives:

- 1. To determine the appropriateness of the project provisions, whether its objectives were met, the efficiency of delivery strategies, impact, and the sustainability project.
- 2. To assess project implementation fidelity and quality, and effectiveness of the management modalities in use.
- 3. To document the lessons learned emerging from a synthesis of major challenges affecting aspects of the projects performance.
- 4. To stipulate the recommended priority areas for action, highlight areas for further research and/or impact evaluation.

In terms of scope, the focus of the evaluation was on: (i) the performance of the project in terms of attainment of project objectives, the intermediate effects and ultimate changes attributable to the project, and (ii) the process used to implement and manage the project with respect to approaches used to design and organize project execution.

Methodology of the evaluation

The evaluation approach was participatory and inclusive, involving qualitative and quantitative methods of data collection. Literature review, key informant interviews, discussions and meetings, and a household survey constituted the specific methods used to generate information from a range of stakeholders including staff of the RWSD at the Ministry headquarters, technical support unit staff, district water officers and other district officials, water user committee members and household heads/representatives.

Between August and November 2017, a team of water specialists and sociologists undertook the qualitative assessments, while the quantitative assessment was conducted using teams of research assistants to visit water and sanitation sources and administering structured questionnaires to selected households. Data collected was collated and analyzed using the content and thematic analysis for the qualitative data and Excel for the quantitative data.

Findings

The findings of the evaluation are summarized as follows:

Relevance:

Overall the project was found to be relevant as it met the need and priorities of the government of Uganda, district local governments and communities. Projects were aligned to the country's overall planning framework — the National Development Plan — from which development partners and Ministries, Departments and Agencies and the Districts Local Governments based their plans.

Efficiency

<u>Timely delivery of projects/works</u> - Inefficiencies were identified regarding timely and quality delivery of projects. The common delays were listed as delays in community contributions and/or related acquisitions of land; inefficiencies in procurement leading to delays in signing contracts and delays in contract implementation due to incompetence of contractors, ineffective supervision, etc. However these were not systemic and could be adequately addressed by the QA arrangements in place.

<u>Financial wastage -</u> Financial wastage was witnessed during construction, where some of the boreholes were dry and in some cases mismatching technologies such as a poorly designed rainwater harvest roof at Lwabenge in Kalungu District where there were nearby homes with tinned roofs that could have been used for the RWH. (The MWE is satisfied that 70% success rate presently achieved is reasonable).

Funds for sanitation promotion —usually in the region of UX 20 million per district - are to be used for mainly software activities and in two sub-counties per district per annum. The evaluation found that the same sum could be extended for entire districts instead of keeping promotion in other sub counties on hold for years.

Per capita investment costs for water points had been dropping in recent years, but have again started to rise since 2015. This has been found mostly due to more expensive technologies after the sector has fully exhausted the "low-hanging fruits". It is therefore expected that per capita costs will continue to rise now.

Effectiveness

The achievement of the programme objectives is summarized as follows:

Sector targets

Error! Reference source not found. Table 1-2 below shows an increase in all outcomes as reflected by t he indicators between Financial Years 2010/11 and 2015/16. Access to improved sanitation registered the highest percentage increase that was well above the target for the year 2015/16.

Outcome	Outcome	2010/11	2015/16		2019/20
	Indicators	Baseline ¹	Actual ³	Target⁴	Target ²
Increased access to	% of safe rural water	65%	67%	77%	79%
rural water supply.	supply coverage				
Enhanced	% of functionality	83%	87%	90%	95%
functionality of water	rates of rural water				
sources	system				
Increased access to	% of sanitation	71%	82%	77%	95%
improved sanitation	coverage				

¹ SPR 2010/11

² MPS 2016

³ SPR 2015/16

⁴ MDGs

The improvements in water supply coverage of 2% is drowned by the large population increase over the same period, taking into account the annual population increase of 3.0% (UBOS, 2014). The same applies to functionality of the water sources, which showed a 4% improvement over the same period.

<u>Capacity building</u> - The Ministry of Water and Environment set up Technical Support Units to help with the capacity building of the districts under their sectors.

CBOs and NGOs were involved in capacity building at district levels, the evaluation found. They were particularly effective in training communities on operation and maintenance of the installed facilities.

Guidance from the center and District - The central government line ministries (MoLG, MoH, MFPED and MGLSD 5) offered varied piecemeal logistical support to their delegated departments; the evaluation team found that the project design did not adequately specify the route for a holistic guidance platform from the relevant line ministries into routine program implementation. Though the line ministries are represented in the Water and Environment Sector Working Group (WESWG), in practical terms there is little regular guidance to districts as there was no provision for districts to programmatically seek counsel from or even provide specific relevant reports to MoLG, MoH or MGLSD. The evaluation found out that across the districts, the role of District Water and Sanitation Coordination Committee (DWSCC) is limited to the allocation of water point facilities to the communities. Other important components like environmental protection for sustainable management of water resources and effective community management system for the facilities are generally limited.

<u>Stakeholder engagement -</u> The evaluation team established that there were several water and sanitation sector related CSOs/NGOs operating in the districts. Several of the NGOs had MoU with the districts and shared, some of their work plans with the districts. While some of the work plans and budget estimates of the some of the CSOs were reflected within district development plans, a more constructive and sustained relationship between the local government and the CSOs including sharing resources and approach in respect to programming, prioritization and implementation of RWSSP related activities was not well developed and practiced.

<u>Establishment of Regional spare parts depots -</u> Establishment of regional spare parts depots was undertaken by the Ministry of Water and Environment, but the evaluation found that the depots were not relevant to the growth process of the private sector. The private sector will naturally follow where there is profit to be made. Private sector players therefore needed a critical mass of consumers in order to make profit rather than the decentralized depots proposed under the programme.

<u>Sanitation coverage -</u> The evaluation found that the awareness creation strategy was good to promote sanitation and enhance the benefits from safe water provision. However, the strategy was not so relevant in more developed parts of the country, where there is already universal knowledge about the need for hygiene and sanitation. Instead, such communities required tangible help in constructing facilities. Furthermore ignorance of sanitation options could then not be blamed for stagnation in sanitation coverage as only a tiny fraction of households did not appreciate the need for faecal disposal facilities.

Improved community level management

Virtually every water point has a management committee. Procedures for committee formation have been standardized and are easily implemented, according to the findings of the evaluation.

⁵MoLG (Ministry of Local Government); MoH (Ministry of Health); MFPED (Ministry of Finance, Planning and Economic Development); MGLSD (Ministry of Gender, Labour and Social Development).

Impact

Households reported a lower incidence of diarrheal disease among children less than five years of age and the rural population in general.

Considering that the distance to and time spent at water sources is reported to have reduced, the RWSSP can be presumed to have had a positive impact on women's participation in economic activities accruing from time savings enjoyed by girls and women who no longer have to walk long distances to collect water.

Sustainability

Various issues affecting sustainability of water points were identified, including:

- Non-viability of the water point, whereby the source runs dry in due course
- Poor construction or new water points, making them fail early
- Repairs which are hastily implemented by community management
- Inability of WUCs to mobilise required funds for repairs
- Poor quality of repairs by hand pump mechanics
- Lack of pressure from users to WUCs to implement repairs

Sanitation interventions, consisting mainly of promotion activities, were found unable to sustain the required sanitation coverage improvements in some communities. Such communities already appreciate the need for improved sanitation but are unable to make the necessary investments. Both enforcement and other incentives may be required.

All voluntary institutions involved in the RWS service delivery – WUCs, NGOs/CBOs and HPMAs – have sustainability challenges that need to be addressed. Sustainability of WUCs despite their almost universal user acceptance can be affected by the next big failure if they are not prepared. NGOs that depend on district contracts will not be sustainable beyond such district contracts. And the HPMAs, which are still feeble, may not become firm without support from LGs.

MWE efforts to provide services through TSUs were found unsustainable, as they cannot be provided in the mainstream MWE setup without duplication. Furthermore the support to districts in the form of short time staff did not contribute to the long-term sustainability of DLG services to CBMS.

Quality of project implementation

There were instances where quality of project implementation has been compromised by poor planning (mainly design and siting) and poor supervision.

Nature of project management

Though M&E data collection systems have been well developed, the data generated by the M&E system was not effectively used for decision making at both MWE and DLG levels.

The project management protocols have also excluded the target groups, who feel alienated from the project management process.

Strategies for stakeholder engagement

There were no stakeholder engagement plans developed in districts for stakeholder engagement. The engagements seen have been on an ad-hoc basis, aimed only at increasing the district stock of water points and involving only one stakeholder at a time.

Conclusions

The evaluation made the following conclusions

- The programme outputs and outcomes were very clear, but impacts could not be verified let alone quantified. At this stage. There has been insufficient data to accomplish this.
- Maintenance by Communities is only limited to repair of facilities that have broken down. The
 concept of preventing facilities from breaking down or restoring capacity that are slowly
 deteriorating is alien to community actors.
- The partner ministries of Education and health are not contributing to the sector effort in accordance with WSSP in accordance with the originally planned (1998) memorandum.
- The water resource monitoring outputs are not yet fully integrated into the planning and the operation of water facilities.
- Sanitation improvement strategy of awareness creation, and shaming; are insufficient to achieve the target improvements. Other incentives need to be introduced to encourage construction and use of more facilities.
- The concept of the TSU has lost its initial effectivenessoccasioned by reduced funding to DLGs; and should be reviewed to contribute more to the sector effort.
- More equitable distribution of interventions can be achieved by technocratic rather than political considerations.
- The HPMs and HPMAs need support if they are to contribute effectively to the target achievements.
- Financial allocations and allowable technologies need to be reviewed to take into account the ease with which a particular district can realize interventions.
- The MWE database and data collection protocols need to be reviewed to provide an accurate picture of the situation.

Lessons learned

The study identified the following lessons that can be used to improve future implementation:

- WUCs can become more sustainable by pooling resources, and can contribute to community by morphing into a financing association.
- Private sector BHs stockists are unlikely to continue with business in a catchment that is less than 5,000 boreholes.
- Users can contribute to Institutional/public facilities (schools, Health centers, parks etc.) and this will almost certainly keep these sustainable.
- Target beneficiaries want to contribute to project management process but are essentially excluded by the present arrangements.

Policy recommendations

- Review budgetary allocation to cater for hard to serve /disadvantaged districts in terms of water technologies and availability of ground water.
- Review the allocation of funds between new sources, rehabilitation and software.
- Enact guidelines for enforcement of sanitation
- Change the CBMS to change from reactive to proactive preventive approach in the management of water facilities.
- Merge procedures maintenance and Monitoring of facilities, which should be outsourced to local contracting bodies.
- Encourage rural-friendly alternative payment and financing systems to enable rural communities construct and maintain their systems
- In school instead of parents paying, UPE and USE should contribute 1000 per child towards water and sanitation, there should be separate account and signatories to that account must be a parent. Money can only be withdraw with proven of decided quorum.
- For health centers, every patients must pay 100 shillings towards water and sanitation each time they come to hospital. Similarly the HMC can make an appropriation to WSS services.

Programme recommendations

- Introduce regular self-evaluation and independent external expert evaluations for districts
- Simple contracts could be awarded on fixed price basis but with competition on delivery guarantees or rotationally awarded.
- Devolve certification of payments to beneficiaries by success fee contracts or clauses.

Abbreviations and acronyms

ACRONYM	MEANING
B/H	Borehole
BoD	Burden of Diseases
CBMS	Community Based Management System
CRO	Community Based Organization

CBO Community Based Organization
CDO Community Development Officer
CLTS Community Lead Total Sanitation
CSO Civil Society Organization

CSO Civil Society Organization

DAC Development Assistance Committee
DDEG District Discretional Equalization Grant
DDHS Department of District Health Services

DDP District Development Plan

DEAR Directorate of Economic and Research Affairs
DHSCG District Health and Sanitation Conditional Grant

DIM District Implementation Manual
DLG District Local Government
DLP District Led Programming Initiati

DLP District Led Programming Initiative
DWD Directorate of Water Development

DWO District Water Officer

DWSCC District Water and Sanitation Coordination Committee

FDS Fiscal Decentralization Strategy

FGD Focus Group Discussion

FY Financial Year

GFS Gravity Flow Scheme

GIZ Germany International Cooperation Agency

GoU Government of Uganda

HH Household
HMC Hand Mechanic
HPM Hand Pump Mechanic

HPMA Hand Pump Mechanics Association

IPF Indicative Planning Figure
ISH Improved Sanitation and Hygiene

IWRM Integrated water resources management

LC Local Council
LG Local Government
LLG Lower Local Government
M&E Monitoring and Evaluation

MDA Ministries, Departments and Agencies
MDGs Millennium Development Goals

MFPED Ministry of Finance, Planning and Economic Development
MGLSD Ministry of Gender, Labour and Social Development

MoH Ministry of Health

MoLG Ministry of Local Government
MoU Memorandum of Understanding
MPS Ministerial Policy Statement

MWE Ministry of Water and Environment
NDP National Development Plan

NGO Non-Governmental Organization
NWP National Water Policy

NWP National Water Policy
O&M Operation and Maintenance

OD Open Defecation

OECD Organization for Economic and Cooperation Development

OPM Office of the Prime Minister

PHAST Participatory Hygiene and Sanitation Transformation
PPDA Public Procurement and Disposal of Public Assets

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PPP Public Private Partnerships

PRDP Peace Recovery and Development Programme

PS Primary School
RGC Rural Growth Center
RWH Rain Water Harvest
RWS Rural Water Supply

RWSSD Rural Water Supply and Sanitation Department RWSSP Rural Water Supply and Sanitation Programme

S/C Sub-county

SACCO Savings and Credit Cooperative Organizations

SDG Sustainable Development Goals

SEP

SIP Sector Investment Plan
SPR Sector Performance Report
TSU Technical Support Unit
UBOS Uganda Bureau of Standard

UGX Uganda Shillings

UNICEF United Nations Children Fund
UNICEF United Nations Children's Fund
UNRA Uganda National Road Authority

USF Uganda Sanitation Fund W&S Water and Sanitation

WESWG Water and Environment Sector Working Group WRMD Water Resources Management Department WRMP Water Resource Monitoring Programme

WSCG District Water and Sanitation Development Conditional Grant

WSS Water Supply and Sanitation
WSWG Water Sector Working Group
WUC Water User Committee

1. INTRODUCTION

1.1. Background to the assignment

This evaluation is carried out on the instructions of the Government of Uganda through the Office of the Prime Minister⁶.

Government is concerned with increasing investments in rural safe water supply and sanitation services (improving coverage) in the face of persistent poor functionality of the facilities. Aware that use of unsafe water and poor sanitation services correlates with poor quality of life, perpetual cycles of poverty (dropping out of school and ill-health) are associated with low agricultural productivity, low incomes, et cetera). Therefore, weaknesses in the sector/sub-sector clearly compromise and directly undermine Uganda's quest to achieve/pursue national/overarching aspirations, goals and visions (e.g. becoming a middle income country).

The Government Evaluation Facility (GEF) under the OPM guides the evaluation. The evaluation is part of GEF's effort to commission and conduct evaluations on policies and programmes executed by Government. The aim is to enhance the delivery of public services and works. GEF worked with Directorate of Economic Affairs and Research (DEAR) in the president's office, the Ministry of Water and Environment (MWE) and relevant GoU Ministries, Departments and Agencies (MDAs) to carry out the evaluation.

1.2. Country Context and Justification

1.2.1. Country Context

Government of Uganda is committed to ensuring access to safe water and better sanitation and hygiene for its citizens. This commitment is well documented in government's comprehensive development planning framework - the National Development Plan (NDP) that is a successor to the Poverty Eradication Action Plan (PEAP). NDP I covered the period 2010/11 - 2014/15 and government is now implementing NDP II, which covers the period 2015/16 - 2019/20.

The NDPII notes a number of challenges in rural water supply and sanitation key among them being: poverty, rapid population growth resulting in congested and informal settlements and a continuously increasing need for new safe water sources; lack of funding to keep up with this increasing need; un-reliable Operation and Maintenance (O&M) of water facilities; poor protection of water sources resulting in low and decreasing water quality; poor sanitation practices due to negative customary beliefs and lack of sensitization; unavailability of appropriate technologies at reasonable cost; climate change causing drought; and poor operation and maintenance of sanitation facilities, more especially in public places and schools.

Accordingly water and sanitation sector focus in NDP II is on increasing access to safe water in rural and urban areas; increasing sanitation and hygiene levels in rural and urban areas; increasing functionality of water supply systems; incorporating gender concerns, implementing water resources management reforms and promoting catchment based integrated water resources management. More specifically, NDP II sector targets for rural water supply over the plan period are cited as increasing water supply coverage in rural areas from 65 percent (2012/13) to 79 percent (2019/20) while ensuring that at least each village has a clean and safe water source. In relation to sanitation, performance targets for sanitation

⁶ See Terms of Reference Section 2.1 para 1.

in the Strategic Sector Investment Plan (SIP) for 2015 were 77% coverage in rural areas and 80% for urban by 2015. However, reporting of the sanitation situation often goes undocumented in part because issues of hygiene and sanitation are seen to be more private than public in nature.

Legal and Institutional Framework for the Water and Sanitation Sector

Government of Uganda has put in place a robust legal and institutional framework for the water and sanitation Sector.

The Ministry of Water and Environment (MWE) takes responsibility for overall sector coordination, policy formulation, setting standards, inspection, monitoring, technical back up and initiating legislation. MWE vision is "Sound management and sustainable utilization of water and Environment Resources for the present and future generations". The Mission statement for MWE reads 'To promote and ensure the rational and sustainable utilization, development and effective management of water and environment resources for socioeconomic development of the country'. The stated strategic objective of the ministry in the provision of W&S services is: "To provide safe water within easy reach and hygienic sanitation facilities to all Ugandans in the long term and in the short term to 79 percent of the population in rural areas and 100 percent in urban population by the year 2020 with 95 percent effective use and functionality of the facilities" The definitive investment plan to achieve this objective has been the SIP15 and its iterations.

Alongside MWE are government agencies and such as the National Water and Sewerage Corporation, and Local Governments. In addition, non-state actors that have a stake in the provision of services include the: private sector firms that participate in consultancies, construction and development as well as operation and maintenance of facilities; Civil Society Organisations that provide services in emergency and disaster situations as well as complimenting government efforts in community mobilization, water supply, sanitation and hygiene; and Development partners that provide financial and technical support.

The above stakeholders constitute the Water and Sanitation sub-sector that is responsible for ensuring availability and access to safe and clean water and hygienic sanitation facilities in rural and urban areas, as well as delivering viable Sewerage/Sanitation systems for domestic, industrial and commercial use.

Water supply

The second National Development Plan (NDP II) cites increasing access to safe water from 65% to 79% in rural areas and from 77% to 100% in urban areas by 2019/20. Yet, performance targets in the Strategic Sector Investment Plan (SIP) were 77% coverage in rural areas and 80% for urban by 2015. It should be noted that as of June 2016, the population with access to safe water in the rural areas was only 67%, and in urban areas only 71%. The functionality of the former has decreased from 88% in June 2015 to 86% in June 2016.

Sanitation

Reporting on the situation regarding sanitation often goes undocumented in part because issues of hygiene and sanitation are seen to be more private than public in nature. Sanitation is often a neglected area because most efforts are invested in promoting water supply. This is attributed to sanitation being regarded an intangible provision (e.g. promoting hygiene) yet water is seen more as a tangible/visible provision (e.g. water supply construction). At lower levels, projects often ignore sanitation provision and where they make attempts, the approaches they use are questionable. Government has tended to opt for using water supply as an entry point for sanitation. This employs a range of approaches or options that include project conditionality (e.g. attaining a given level of latrine coverage before the project provides a water point); project sequencing of provisions (e.g. dissemination of sanitation and hygiene messages before water supply commences); etc.

1.2.2. Justification

The significance of the evaluation stems from the current water and sanitation sector performance trends. It has been noted that while government and development partners have provided funding to RWSS over the years, resource allocations and releases to the sector have not always translated into desired results in terms of efficiency of delivery and functionality of facilities. Some reports cite the fact that districts have inadequate financial resources to conduct major repairs and for the few (repairs), which are done, they are outsourced to the private sector whose procurement processes are too long to be desired. Boreholes that are the main source of safe water are reportedly notorious for breaking down and remaining so (with about 6,000 boreholes reportedly dysfunctional country-wide).

While MWE allocates a total of UGX 60 billion annually to District Water Offices (DWOs) to maintain increased coverage and quality of the services many of which get dysfunctional. ⁸

1.3. The Rural Water Supply and Sanitation Programme (RWSSP)

1.3.1. Overview

According to the Public Investment Plan FY 2013/4-2015/6), GoU supported the RWS (01/02/2001-01/02/2017) as an initiative involving MWE and selected Development Partners.

The Rural Water and Sanitation Department (RWSD) of the Directorate of Water Development (DWD) implement the RWSSP. The RWSSP is not defined by a singular project document, but rather by "intentions" and activities of each of the projects implemented by RWSD.

The overall objective RWSSP as at now, are taken from the National Development Plan (NDP) 2 or from the precursor NDP 1 and the Millennium Development Goals (MDGs). The consultant has agreed with the Office of the Prime Minister (OPM) that these objectives will form the basis for evaluation of the RWSSP. Table 1-1 below gives the projects currently under implementation by RWSD.

Table 1-1: Rural Water Supply Projects Implemented by GoU

Project No.	Project Title	Start – end	Funded by
0163	Support to RWSSP	2/1/2001 – 2/1/2017	Denmark, Austria, African Development Bank &GoU
1191	Provision of Improved Water Sources for Returned IDPs-Acholi Sub-Region	7/1/2011 – 6/30/2017	Japan, GoU
1347	Solar Powered Mini-Piped Water Schemes in rural Areas	7/1/2015 – 6/30/2020	GoU
1349	Large Rural Piped Water Supply Schemes in Northern Uganda	7/1/2015 – 6/30/2020	GoU
1359	Piped Water in Rural Areas	7/1/2015 – 6/30/2020	GoU

Programme objectives and outputs

The objectives of the Programe are: To support the local governments, NGOs, humanitarian organizations and CBO's to build capacity for efficient and effective service delivery in the water and sanitation sector.

Envisaged outputs of the RWSSP include:

 New TSU support modality established and functional to provide technical support to LGs districts effectively performing their sub sector mandates and responsibilities and

⁷ ToR, section 1.1, para 3, third sentence.

⁸ ToR, section 1.1, para 1 last sentence.

effectively guided by central government [MoLG, MWE/DWD, MoH, MFPED and MGLSD]

- Water supply and sanitation facilities constructed for selected rural growth centres as on job training is being carried out.
- Improved financial management, planning and budgeting and procurement procedures (improved sector efficiency and effectiveness).
- Increased private sector involvement in RWSS development. Increased NGO involvement in RWSS development.
- Community level management improved. Effective support from districts to communities, manuals and tools for training and implementation developed.
- Increased and enhanced involvement of all stakeholders in the water sub sector.
- Regional spare parts depots established and monitored.
- Management and technical skills to handle large scale RGCS and GFS built.
- Implementation manual and monitoring and evaluation tools developed.
- Integrated water resources management and implementation of activities in relation to the new TSU concept.

Technologies under the RWSSP

The water sources used in RWSSP are usually one of the following:

- Protected Springs
- Dug wells (hand dug, hand augured or motored drill).
- Drilled wells (hand pumped or powered pumping)
- Gravity flow systems (from a naturally elevated springs or man-made elevated storage).
- Ground level reservoirs including natural water body such as lake/pond: or man-made reservoir like Ground level Rain Water Harvesting (RWH) tank, excavated (underground tank) tank or impounded reservoir along a stream/river.

Rural water supplies are not generally treated. However, surface sources, when used must be treated and this makes them a rarity in rural water supply.

Abstraction mechanisms may be hand pumps or machine driven. Because of the cost of operation and maintenance, machine driven pumps are also a rarity.

According to the Sector Performance Report prepared by MOWE, the most popular technologies are:

- i. Point sources boreholes, shallow wells and springs..
- ii. Piped water sources gravity fed schemes and conventional pumped/piped water sources.

1.3.2. Programme co-ordination and management

At the national level and the Water Sector Working Group (WSWG), the Director DWD coordinates the programme and prepares quarterly reports for submission to OPM.

The Director is responsible for coordinating a range of programme activities including:

- Backup support to District Local Governments for implementation of cost-effective, sustainable water and sanitation facilities to rural communities in an equitable manner.
- Developing standards, guidance and monitoring all stakeholders involved in RWSS service delivery.
- Equipping District staff, through backstopping with the necessary skills, tools and knowledge for provision of water and sanitation facilities, support communities in O&M and monitoring water users.

• Promoting, through Research and Development, appropriate technologies and approaches for rural water supply and sanitation with focus on water stressed areas.

Management of the programme is the responsibility of the Commissioner RWSSD and his team. Managing the programme entails among others the provision of rural water supply services, training, equipping and backstopping of LG staff, development of standards and guidelines, research/ development and promotion of appropriate technologies and approaches for rural water, monitoring and support supervision planning, budgeting and resource allocation for rural water and sanitation, Quality assurance for district designs of facilities.

At the district level, the District water sector co-ordination committee coordinates the programme.

1.3.3. Implementation of projects

Programme activities comprise projects that are implemented:

- By Local governments using the conditional grants; and
- Directly by DWD for projects that are considered either too complex or cross boundary.

The District Implementation Manual (DIM) guides project implementation at district level. Implementation procedures for projects implemented at the Centre are not separately documented; they follow generally the DIM and the Public Procurement and Disposal of Public Assets (PPDA) provisions.

The project cycle is planned in tandem with the Government of Uganda (GoU) financial year (FY) i.e. July – June; and is spread over three years as shown in Table 1-2 below:

Table 1-2: The RWSSP Project Cycle.

FY	Theme	Hardware activities	Software activities
1	Planning & budgeting for projects to be implemented in FY.	 Time bound Jul – Oct: Development of parish and sub-county (s-c) plans Oct – Dec: Budget framework starting National, district then s-c level Jan – Feb: Review of Lower Local Government (LLG) projects/budgets selections at district level Mar – Apr: Finalization of district projects May – Jun: Finalization of projects/national budget, feedback to districts. Jun: Prequalification of service providers for FY 	Continuous Community mobilization including: Generating demand for projects Water and Sanitation Committee (WSC) formation Trainings Hygiene & sanitation promotion
2	Projects implemented.	 Time bound Jul – Sep: Procurement of service providers Oct – Mar: Construction/implementation Apr – Jun: Commissioning & hand over. 	<u>Continuous</u> Monitoring and Evaluation (M&E)

FY	Theme	Hardware activities	Software activities
3	Review and post	<u>Time bound</u>	<u>Continuous</u>
	construction support	• First quarter: LGs review performance of	Operation and
	for projects	FY.	Maintenance (O&M)
	implemented in FY2.		support to WSCs

Implementation modalities

Siting, design and construction supervision is always carried out by consultants – for deep wells only. Construction is the preserve of the private sector.

1.3.4. Quality Assurance to the programme

Quality assurance for the programme is provided by:

- TSUs for districts
- Consultants when employed by the Districts and DWD for purposes of project design or supervision.

1.3.5. Monitoring and Evaluation structures

A centralized database has been set up by DWD; all districts submit quarterly reports for updating the centralized database. The centralized database is reviewed quarterly and published annually. This is also the main tool supposed to feed into the prioritization and decision making process at the District and Central government level in respect to program planning and implementation.

1.3.6. Sector Funding and Allocation of the District Water and Sanitation Conditional Grants (DWSCG)

This report is based on the immediate past FY funding to MWE (2015/16) as follows:

- District Water and Sanitation Development Conditional Grant for Rural Water (DWSCG: UGX billion 60.37. This is disbursed to districts based on a formula agreed between MOFPED and MWE.
- District Health and Sanitation Conditional Grant (DHSCG) to 91 districts: UGX 2.00 billion (each receiving approx. UGX 23 million only).
- Project implementation funds for projects implemented directly by DWD UGX 13.8 billion.
- In addition to the conditional grants above, some districts are given additional funding from:
 - o District Discretional Equalization grant
 - Peace Recovery and Development Programme (PRDP)
 - Non-Governmental Organizations and Civil Society Organizations (NGOs/CSOs)

1.3.7. Financial procedures

Originally, cash was transferred to district accounts and paid out by the district. Because of leakages that were noticed between the BOU and the district, this has now changed to "cash warrants" which are forwarded to accountant general to pay directly to beneficiaries9. This helps to reduce such "leakages".

⁹ Secretary, Local Government Finance Commission.

1.4. This Evaluation

1.4.1. Objectives of the evaluation¹⁰

The overall objective of the evaluation is to assess the relevance, efficiency, effectiveness and sustainability of the project. Specifically, the evaluation seeks to undertake the following:

- 1. To determine the appropriateness of the project provisions, whether its objectives were met, the efficiency of delivery strategies, impact, and the sustainability project.
- 2. To assess project implementation fidelity and quality, and effectiveness of the management modalities in use.
- 3. To document the lessons learned emerging from a synthesis of major challenges affecting aspects of the projects performance.
- 4. To stipulate the recommended priority areas for action, highlight areas for further research and/or impact evaluation.

1.4.2. Scope of the evaluation¹¹

The evaluation is to assess:

- 1. The performance of the project in terms of attainment of project objectives, the intermediate effects and ultimate changes attributable to the project.
- 2. The process used to implement and manage the project with respect to approaches used to design and organize project execution.

1.4.3. Evaluation questions¹²

The Terms of reference specified both a summative and formative aspect to the evaluation.

- i). On the **summative side**, these would be guided by the OECD/DAC criteria:
 - 1) Relevance: The extent to which the project is suited to the priorities and policies of the target groups, recipient LGs, sector and development partners' goals.
 - 2) Effectiveness: The extent to which the project attains its objectives.
 - 3) Efficiency: The extent to which implementation-registered savings.
 - 4) *Impact*: The extent to which the project generated changes or effects, including resulting from the activities and impacting local social, economic, environmental and other development indicators.
 - 5) *Sustainability*: The extent to which the project generated benefits that are likely to continue even after the project ceases.
- ii). On the **formative side**, the evaluation seeks to establish how the program is working and how it can be strengthened; whether it is being implemented as planned and propose how implementation can be improved; and whether or not the project may have some value addition to future projects delivered using similar roll-out procedures. It will be interesting to know if the design, implementation and management of the project took recourse to best-practice strategies.
 - 1) Quality of Project Implementation: Strategies to ensure the following:
 - Alignment to felt needs in the general project implementation context
 - Quality assurance/control to ensure project implementation fidelity (implemented as planned)
 - General adequacy of project implementation (delivery, reach, recipients and targeting mechanisms)
 - Technical appropriateness of project benefits (gauged by "dosage", uptake and utilization)
 - 2) Nature of Project Management: Sufficiency of the following aspects:
 - Project design strategies used and how well were they handled.

 $^{^{\}rm 10}$ Terms of Reference, section 2.1; para 2.

¹¹ Terms of Reference, section 2.3

 $^{^{12}}$ Terms of Reference section 2.2

- Coordination strategies used and how well were they handled to foster alignment to and harmonization with stakeholder agencies
- Finance management strategies used and how well were they handled.
- Program management structures in use and how they fared.
- M&E strategies were in use and how well were they handled.
- 3) <u>Strategies of Stakeholder Engagement: Adequacy of Civil Society Organizations (CSOs) inputs and involvement; Development Partners participation and aid effectiveness; Public Private Partnerships (PPPs) as well as strengthening of decentralization when working with and through LGs to deliver project benefits.</u>

1.4.4. Evaluation Timeframe

This evaluation covers the period 2010/11 - 2014/15

1.5. Structure of the evaluation report

The Evaluation report is prepared in two volumes

Volume 1 – Main Report (this volume) - presents the findings, conclusions and recommendations.

Volume 2 — Annexes - presents the Appendixes, Project background data, consultation minutes and stakeholder attendance forms.

2. METHODOLOGY

2.1. Approach

The evaluation is considered an ex-post evaluation i.e. the project is already completed. One of the final outputs of the present assignment is to produce a policy brief. Accordingly therefore the assignment should provide as key among others:

- Assess current progress project the future achievement of the sector objectives
- Collect information that can be used to enhance contribution to these objectives by all stakeholders. Generate knowledge that can be used to learn from and inform planning of future such projects
- Information on accountability for the money, time and effort spent on the programme Qualitative methods are used to collect various viewpoints and experiences. Quantitative methods are used to validate to the extent possible, the observations raised by the researchers.

2.2. Sampling procedure

The empirical data upon which findings and conclusions are made was collected from 16 districts, 240 communities and 2,400 households living within them. A total of 30 LGAs (falling within ten regions of the country) were randomly sampled and covered in the study. These LGAs were among 79 LGAs that qualified on the required sampling criteria. A LGA qualified for sampling if it managed to complete the construction of at least four water schemes under the Ten Villages initiatives by July 2014. This approach, sampling only from LGAs with at least four schemes, enhanced the logistical feasibility of the survey. Qualitative Methods

Literature Review

The consultant has reviewed literature available from Central and Local Government, Development Partners, Ministries, Departments and Agencies (MDAs) on the sector, program and specific projects.

2.2.1. District Visits

The following districts (table 2-1) were selected during the Inception Phase for the sample. Districts were selected to represent the extremes of good performance (upper quartile) and poor performance (lower quartile) as derived from the National Water Supply Atlas 2016, while allowing ease of movement for the survey assistants

Table 2-1: Districts visited for the study

	TEA	M 1		TEAM 2					
TSU	District name	Dates	TSU	District name	Dates				
1	Yumbe	28 – 29/08/2017	7	Kalungu	28 – 29/08/2017				
	Maracha	30 - 31/08/2017		Lyantonde	30 - 31/08/2017				
2	Oyam	04 - 05/09/2017	8	Kisoro	04 - 05/09/2017				
	Kitgum	06 - 08/09/017		Mbarara	06 - 08/09/017				
3	Kotido	10 - 12/09/2017	6	Kyegegwa	10 - 12/09/2017				
		13 - 15/09/2017		Mityana	13 - 15/09/2017				
		06 - 07/11/2017	5	Masindi	08 - 10/11/2017				
	Budaka	08 - 10/11/2017		Buvuma	11 - 12/11/2017				

2.2.2. Key Informant interviews

The evaluation team interviewed a range of individuals representing all stakeholders previously identified to have a clear understanding of the programme reception and re-conception and all its operations at the different levels of implementation.

The questions and/or lines of inquiry were maintained as similar as possible among different stakeholders, so that the researchers can triangulate responses of the different stakeholders. Where necessary the researchers have had to re-question respondents (by phone or repeat visits) to bring out their experiences clearly.

2.2.3. Focus Group discussions

Focus group discussions were held with projects beneficiaries and Water User Committee (WUC) members at the community level. Observations of user's habits and interviews with users on site also allowed for an insight into the user perceptions.

2.2.4. Site visits

The evaluation team visited villages/salient water points to assess the state of maintenance of water points and sanitation facilities, as well as interaction with users and WUCs.

2.2.5. Institutions

The evaluation teams visited schools and health centers to assess the water supply and sanitation situation.

2.3. Quantitative Methods

A team of research assistants administered questionnaires to randomly selected households. The household questionnaire, captured information on socio-economic and demographic characteristics, education profile, health, usage of water and sanitation facilities, hygiene practices, ownership of assets and engagement in economic activities.

2.4. Data Validation

Field data was subjected to validation with key stakeholders especially the TSUs and District Water Officers as part of the field exit process, and allowed for clarification and provision of additional information as necessary. Further validation of findings through a debriefing for the commissioners of the evaluation (OPM, DEAR & MWE) has been undertaken and incorporated in the present report. MWE provided extensive comments on the first draft of the report which have been taken into account in preparing this report. The comments and actions are included in Vol 2.

2.5. Data Analysis

The report presents findings triangulated from multiple respondents interviewed/consulted, observations and secondary data from documents reviewed. They represent the researchers' answers to the evaluation questions, which have been arrived after internal debate.

Qualitative data was analyzed using thematic and content analysis. Feedback was grouped according to key themes or lines of enquiry and dominant patterns identified.

Quantitative data was analyzed using excel to generate relevant tables and charts depicting household feedback in line with key areas of enquiry in this evaluation.

2.6. Study Limitations

 Inaccessibility of complete records required for the study e.g. Work plans for previous years were not available from districts and TSUs (the researchers were referred to MWE which has

- not yet complete historical records for these work plan). Health records over the previous 5 years were unavailable at district health centres.
- School information could not be obtained as the execution of the field survey coincided with
 conducting of examination and school closure activities. Head teachers and responsible staff
 therefore could not avail our researchers' time and information to facilitate analysis of the
 impact of water and sanitation activities on school enrolment and retention and more
 specifically in respect to the girl child.

3. EVALUATION FINDINGS

3.1. Overview

This chapter of the report presents the evaluation teams findings in regard to project relevance (appropriateness of provisions), efficiency of delivery strategies (savings in time and cost), effectiveness (extent of realization of objectives), impact, sustainability, project implementation fidelity and quality, and effectiveness of the management modalities in use. Lessons learned and recommendations for priority action are also provided.

The main focus of the National Development Plan (NDP) 2010/11 - 2014/15 in regard to water and sanitation was to increase water and sanitation levels as well as functionality of water supply systems; and reduce per capita investment cost. The situation in regard to the key indicators in 2008/9 is provided below including the targets for 2014/15.

Table 3-1: Water Supply NDP Indicators (Baseline and Endline)

Golden Indicators	2009/10	2014/15
Access: % of people within 1 km of an improved water source	65%	77%
Functionality: % of improved water sources that are functional at time of spot-	85%	90%
check.		
Per Capita Investment Cost: Average cost per beneficiary of new water and sanitation schemes (US\$)	\$38	\$45
Sanitation: % of people with access to improved sanitation (Households).	69%	80%

Source: SPR 2009/10 & SPR 2014/15.

Rural Water supply is also an important component of the NRM manifesto 2011-16. The manifesto promised among others construction of new sources (GF, boreholes and large ground wells), rehabilitation of existing rural water supplies. A particular commitment had also been made to funding maintenance of boreholes where community was finding challenges in maintaining the boreholes¹³.

3.2. Relevance

This subsection of the report provides a response to the question "To what extent the project is suited to the priorities and policies of the target groups, recipient LGs, sector and development partners' goals?".

Water is very essential for all aspects of life – right from safe drinking water for humans, animals and plants. The Government of Uganda recognizes this basic fact and has over the years ensured that its planning and resource allocation frameworks embrace the provision of safe water to its population.

The National Development Plan I (2010/11 - 2014/15) highlights investment in water and sanitation as one of the investment priorities. The vision of the Water and Environment Sector is 'Sound management and sustainable utilization of water and environment resources for the betterment of the population of Uganda'.

In 1999, Uganda published its National Water Policy that sought "To manage and develop the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs of the present and future generations with the full participation of all Stakeholders". The policy promotes principles of Integrated Water Resources Management (IWRM), a comprehensive

¹³ NRM manifesto 2011 – 2016: 11.7 Water Supply and Sanitation; way forward.

approach to water supply. The policy recognizes the economic value of water, promotes the participation of all stakeholders including women and the poor in all stages of water supply and sanitation and confirms the right to all Ugandans to safe water.

The Water Statute of 1997 has the following objectives: (i) promotion of rational water use and management; (ii) promotion of the provision of clean, safe and sufficient domestic water supply to all people; (iii) promotion of the orderly development of water and its use for other purposes, such as irrigation and industrial use, among others, in ways that minimize harmful effects to the environment; and (iv) pollution control and promotion of safe storage, treatment, discharge and disposal of waste that may cause water pollution or other threats to the environment and humans..

The stated objectives of the Water and Environment Sector are among others: (i) to increase provision of water for production through development of multi-purpose bulk water storage and supply systems with the involvement of all stakeholders as appropriate; (ii) to increase water supply coverage in rural areas whole ensuring equity through providing at least each village with one safe and clean water source and where technically feasible piped water options (gravity flow systems, solar pumped boreholes and surface treated systems) will be considered; (iii) to promote improved sanitation services in rural and urban areas including the promotion of hand washing with soap; (iv) to increase water supplies and sewerage services in small towns and large towns, municipalities and cities focusing on the areas earmarked for industrial parks; and (v) to improve water resources management to ensure adequate quantity and quality for the various uses focusing on compliance to existing laws and regulations on the use of the resources at all levels.

Local governments, through the Local Government Act of 1997, are empowered to operate and maintain water facilities in liaison with the responsible ministries. Local governments therefore plan for and budget for water and sanitation services in their districts development plans and the annual plans and budgets.

At the global level, Uganda embraced target 10 of the Millennium Development Goals (MDGs) in regard to access to water and sanitation that sought 'to improve the quantitative and qualitative access to drinking water sources and sanitation facilities'. The MDGs provided development partners and government a basis for dialogue and support to the water and environment sector.

The National Development Plan 2010/11 – 2014/15 in regard to rural water and sanitation places emphasis on: i) increasing access to safe water supply in rural areas; ii) increasing access to improved sanitation; and iii) improving efficiency and effectiveness in water and sanitation service delivery. Interventions proposed under each of these objectives include the construction, maintenance and operation of water supply systems; improving functionality; promotion of good sanitation and hygiene practices in households, communities and rural growth centers; strengthening institutional structures and systems and coordination of water and sanitation activities through technical training to personnel and streamlining roles and responsibilities; involvement of the private sector in funding, development and provision of services through private-public-partnerships, diversification of funding options, education and training for local private sector players and strengthening contractors associations; and enhancing coordination and management through updating the MIS, conducting sector evaluations and annual reviews.

The evaluation established that the range of activities proposed were relevant to national aspirations and priorities, the district local government service delivery priorities and the need

for capacity building in districts and communities as the frontline service providers. At the beginning of the programme DWD were just commencing the privatization of Borehole drilling and construction. Selected community maintenance activities were formally adopted in the National Water Policy (NWP, 1999)^{14.} This was accompanied by the devolution of O&M to LGs and communities (in line with Local Government Act, 1997 and NW)P. Coming from a history of ineffective GoU maintenance, it was clear that there were no capacities at lower levels and these had to then be built up. There was little capacity within the then water sector related CBOs or NGOs, hence the need for capacity building across all stakeholders. It was assumed that capacity building would be scaled up along the program and eventually enables the DLGs to manage the programs with minimum technical support from the TSUs and the centre.

The evaluation team finds that the projects implemented were designed to conform to the then Uganda's priorities and policies for the Water and Environment sector.

However, following the interventions implemented under the RWSSP, the needs of beneficiaries have since evolved: Some communities and districts now say they want piped water systems in preference to point sources installed under the programme. They say this would help serve larger population and reduce the walking distances.

3.3. Efficiency

Programme efficiency was analyzed from the point of savings registered during implementation.

3.3.1. Timely delivery of projects/works

Inefficiencies were identified regarding timely and quality delivery of projects. The common delays were listed as:

- Delays in community contributions and/or related acquisitions (land etc.) leading to delayed clearance of projects for implementation.
- Inefficiencies in procurement leading to delays in signing contracts
- Delays in contract implementation due to incompetence of contractors, ineffective supervision etc.)
- There were also no DLP observed for BHs in some of the districts visited compromising the quality monitoring for the finished project
- Delays in reporting breakages and non-functionality thus leading to delays in procuring repair and/or rehabilitation services.

However these were not systemic and could be adequately addressed by the QA arrangements in place.

3.3.2. Financial wastage

The following causes of cost escalations were listed in most districts:

- Dry wells: The majority of water projects involve drilling. There were a number of
 projects where BH was drilled but water was not struck. Such cases were especially
 reported in all the water stressed districts of Yumbe, Kitgum, Kotido, Serere and
 Budaka Districts. However the percentages of dry wells were consistent with the
 water resource projections (not less than 70%) and therefore do not cause alarm.
- 2. Unsuccessful and mismatching technologies: Some interventions were patently unsuitable for the location or purpose for which they were designed e.g. the "roof" RWH at Lwabenge in Kalungu district where a roof was specifically constructed for RWH, when there were nearby homes with tinned roofs that could have been used for the RWH. Some of the technologies were no longer feasible with social and

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 $^{^{14}}$ National Framework for O&M RWS (2011) pg. 4.

physical developments of the district. Having BHS in rapidly urbanizing districts such as Wakiso, Mbale, Mukono was not sustainable in the long run as demands and tastes are sometimes different. However the team noted that such anomalies had been addressed as they were one-off and not repeated.

Also according to most DWOs, the cost of centrally implemented projects is significantly higher than similar or equivalent projects implemented at district level. Data has not been readily accessible to validate this. What is clear is that projects implemented by the centre fall into disrepair quickly, because DLGs – that feel sidelined - do not establish the required O&M structures at the time of implementation. This is also a form of financial wastage.

3.3.3. Sanitation promotion costs

The activity of sanitation promotion is usually implemented by the DWO in collaboration with DDHS, as there is usually no officer responsible for sanitation in the DWO. Over the last five years, the cost of this activity has averaged around Uganda shillings twenty million (UGX 20,000,000) per district.

The present provision – to promote sanitation in only two sub-counties per annum – appears to be achieved expensively, as the same activity could actually be implemented throughout the district for little or no extra funding. Some of the sanitation promotion activities could be twinned to community engagements or interventions for safe water provision and maintenance.

3.3.4. Per Capita Investment Cost Average

The per capita investment cost average cost per beneficiary of new water and sanitation schemes (US\$) in rural areas shows a decrease from \$41 in 2010/11 to \$32 in 2016/17. Increases in per capita costs were reported in 2011/12 and 2013/14 and thereafter a decline to the current average of \$32. This decline is indicative of savings in per capita investment cost average per beneficiary for new water and sanitation schemes.

DWOs attributed increasing per capita costs to:

Inflation

Facilities are now being built in more remote locations.

In view of the above, there may be a requirement to re-adjust the resource allocation accordingly.

3.4. Effectiveness

This sub-section presents the evaluation team's findings in regard to the extent to which the project attained its objectives.

The NDP I set the following targets in regard to rural water supply and sanitation:

- i). Increase access to safe water supply in rural areas from 63% to 77% by 2015
- ii). Increased access to improved sanitation from 69% to 80% for rural areas; and
- iii). Improve efficiency and effectiveness in water and sanitation service delivery.

3.4.1. Achievement of programme objectives

Improved efficiency and effectiveness in water and sanitation service delivery.

Per capita investment costs stood at \$38 in 2008/9, and the target for 2014/15 was \$45 in rural areas. Per capita investment costs showed a mixed trend rising to \$47 in 2013/4 and dropping to #32 in 2016/17. The rise in costs was attributed to:

Higher cost technologies dictated by the exhaustion of the "low hanging fruit"

solutions (springs & GFS)

Increased overheads as new districts are introduced.

Future financial allocation should therefore take into account these new realities.

Establishment of (effective) Technical Support Units (TUSs)

The programme succeeded in establishing the TSUs - 8 in number operating up to 2016 and thereafter increased to 10 in number. According to the programme objectives, these would help districts effectively performing their sub sector mandates and responsibilities and effectively guided by central government [MoLG, MWE/DWD, MoH, MFPED and MGLSD].

According to the performance evaluation form for TSUs¹⁵, evaluation of the TSU performance is based on many parameters including the timely reporting of the districts under their control, and the co-operation between districts and TSU The evaluation team took timely reporting a proxy measure for TSU effectiveness. The Table below shows the status of reporting by districts under the TSUs at the time of consultant's visit to DWD (6 July 2017).

Table 3-2: Status of reporting WSSP as on 6 July 2017 (source RWSSP database).

TSU	NO.										
130	DISTRICTS	W/PLAN	%	Q1	%Q1	Q2	%Q2	Q3	%Q3	Q4	%Q4
TSU1	8	6	75%	6	75%	6	75%	6	75%	0	0%
TSU2	16	16	100%	16	100%	14	88%	14	88%	0	0%
TSU3	8	7	88%	8	100%	8	100%	8	100%	0	0%
TSU4	14	14	100%	14	100%	13	93%	13	93%	0	0%
TSU5	10	10	100%	8	80%	10	100%	10	100%	0	0%
TSU6	13	12	92%	13	100%	11	85%	11	85%	0	0%
TSU7	11	7	64%	10	91%	10	91%	10	91%	0	0%
TSU8	15	14	93%	15	100%	15	100%	15	100%	0	0%
TSU9	7	6	86%	5	71%	6	86%	5	71%	0	0%
TSU10	13	12	92%	12	92%	13	100%	13	100%	0	0%
TOTAL	115	104	90%	107	93%	106	92%	105	91%	0	0%

As seen from the table above, some Q3 reports had not been submitted by the end of Q4. The TSUs in themselves have not been fully effective in ensuring timely reporting from districts.

Integrated water resources management and implementation of activities in relation to the new TSU concept.

Water resources management is undertaken independently of the programme by WRMD. DWO in the district is responsible for the WRM activities relevant to RWSSP. These include water quantity and quality assessment.

The evaluation team did not find specific activities implemented towards either monitoring quantity or quality in the districts for lack of basic logistics and sometimes manpower. In the few districts where water quality monitoring was undertaken, the activity was either part of the contractor's outputs, or the need was reactionary or initiated by NGOs.

Community level management improved.

The implementation of community management of water projects under the programme started from scratch. The setup can generally be considered as successful: virtually every

¹⁵ TSU Performance Evaluation form, TSU key monthly outputs schedule.

water point has a management committee. Procedures for committee formation have been standardized and are easily implemented. The measure of the functionality of such committees is that the WUC does at least one of the following: collection of fees; undertaking repairs; holds meetings; or cleans environment/sanitation around the source. A nonfunctional committee is one, which does none of these.

The national indicators in the DWD database show that functioning WUCs rose from 71% in 2010 to 87% in 2016¹⁶. The main causes of non-functionality of WUCs were listed as:

- Lack of continued support and training by DLG and LLG
- Lack of sense of voluntarism.
- Low incomes within the users, to support the WUCs.
- Poor financial record keeping by WUCs.
- Disenfranchisement of some WUCs due to breakdown and failure to repair their water points
- Lack of competition since position if held for lifetime causing members to relax and neglect their roles.
- Migration and death; the committee has unfilled positions because some members moved on to other places, others died.

Effective support from districts to communities

Effective support was to be provided to WUCs premised on the development of implementation and training manuals. The following manuals have been developed:

- District implementation manual (DIM), provides guidelines for all the stages of water
 & sanitation project implementation.
- Training manual for committees including WUCs

However, the evaluation team learnt that most committees were only trained once, and thereafter there are no visits from the district staff. The evaluation found that there was little post establishment support provided to WUCs.

Improved financial budgeting, management and reporting within districts

One of the objectives was to improve budgeting, management and reporting skills in the DLGs. The DWD database records improvements in budgeting, management and reporting. However, at the time the evaluation team met DWD officials on 6 July 2017, the status of the reports as shown in the DWD database is shown in *Table 3-2* above.

Increased NGO/CSO involvement in RWSS development

This objective assumes that there is a constructive engagement between DLGs and NGOs/CSOs that have funds to help poor communities in districts.

The evaluation team found that there is no strong engagement with NGOs/CSOs in respect to integrated planning, resourcing and implementation of water sector related programs at the district level. The level of NGOs/CSOs integration into the sector was sometimes driven by availability of international funding windows or opportunities. Other sector related NGOs and CBOs in districts were looking for contracts in districts. At best, some of these should be treated as software contractors.

The evaluation team established that there were several water and sanitation sector related CSOs/NGOs operating in the districts. Several of the NGOs had MoU with the districts and shared, some of their work plans with the districts. While some of the work plans and budget

¹⁶SPR 2016 pg. 4.

estimates of the some of the CSOs were reflected within district development plans, a more constructive and sustained relationship between the local government and the CSOs including sharing resources and approach in respect to programming, prioritization and implementation of RWSSP related activities was not well developed and practiced.

"They come with their money, have definite interventions in mind and are usually not even interested in planning meetings at district level. They deal most of the time directly with beneficiaries and LLGs, and only occasionally with the DLG" (KII-DWO).

Regional spare parts depots.

The RWSSP has tried to interest the private sector in establishing regional depots for supply of spares. This effort dates back to 2004 when MWE tendered out a contract for Supply and Distribution of hand pumps and spare parts in 4 regions in Uganda under contract No. 2003/HP/01 - 04. By 2007 the contracts expired and had not been renewed.

Present examples of stocking of spares encountered by the consultant include Kotido District, where the DWO has even started to stock spares, and Yumbe district has also encouraged UNICEF, which is currently assisting refugees in W&S activities, to open up spare stores.

The evaluation team found that this objective was not effective and had not been fulfilled as anticipated, because the trade (in hand pump spares) is largely unprofitable. The team recommends that effectiveness of this objective can be realized through public and private partnership for spare parts distributions to lowest levels possible.

Management and technical skills to handle large scale RGCS and GFS built.

The evaluation team notes that the objective of providing skills to DLGs to handle large projects has not been fully addressed in the project. The construction of large schemes has remained with the centre (MWE) because of the complexity and geographical expanse/cutting across local government boundaries.

3.4.2. Achievements of sector targets

The national sector targets are shown in the Table 3-3 below show an increase in all outcomes as reflected by the indicators between 2010/11 and 2015/16. Access to improved sanitation registered the highest percentage increase that was well above the target for the year 2015/16.

Table 3-3: Sector Outcomes 2010/11 - 2015/16.

Outcome	Outcome	2010/11	2015/16		2019/20	
	Indicators	Baseline ¹⁷	Actual ¹⁹	Target ²⁰	Target ¹⁸	
Increased access to rural water supply.	% of safe rural water supply coverage	65%	67%	77%	79%	
Enhanced functionality of water sources	% of functionality rates of rural water system	83%	87%	90%	95%	
Increased access to improved sanitation	% of sanitation coverage	71%	82%	77%	95%	

Sources: SPR 2010/11, MPS 2016, SPR 2015/16, MDGs

¹⁷ SPR 2010/11

¹⁸ MPS 2016

¹⁹ SPR 2015/16

²⁰ MDGs

The reported trend in relation to the key indicators of access to safer water, functionality of water points and household access to sanitation between 2010 and 2016 is discussed below:

Access

Access to safe water sources is defined as the percentage of people within 1,000 m of an improved water source. The programme intended to increase access through both construction of new facilities and rehabilitation of existing facilities. The reported trend of access in the study districts is shown in the graphs below.

Access to safe water showed a net positive growth of only 2% between 2010 and 2016 (from 65% to 67% as shown in table 1-2. Some of the increase in coverage is attributable to the construction of new facilities (e.g. for **2016/17**: 2,943 planned, 1,435 achieved by Q3²¹), but the major part is due to the update of the water Atlas²².

However the actual number of people without access to safe water increased between 2010 and 2014 (figure 1-1 below). It should be of concern that the actual number of people without access to safe water is increasing

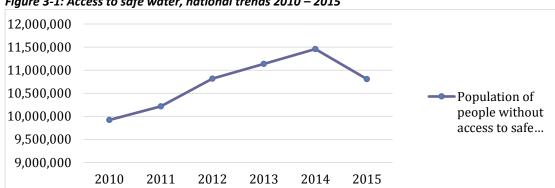


Figure 3-1: Access to safe water, national trends 2010 – 2015

Source: Sector Performance Reports, 2010 to 2016, compared with rural population projections

. The reasons identified were:

- New safe water sources being located in locations already covered, or which give minimal increment to coverage, and
- The number of sources that are rehabilitated do not balance those that are becoming non-functional.

Household sources of water

The sources of water for drinking and personal hygiene during the rainy and dry seasons across the regions are rather the same with some slight variations. A comparison of main sources of water during the wet and dry seasons respectively shows variations. For instance, in Central region, while the main source of water during the rainy and dry seasons was reported to be rain water (2010 & 2017), shallow wells (2010) and protected springs (2017) were the main sources of water during the dry season.

Changes in water sources during the dry season were particularly observed in the Central and Eastern regions while in Northern and Western regions the sources remained the same. In the

²¹ 201617 outputs.xls

²² SPR 2015/16 pg 22 section 4.3.1

rainy season (Table 3-5), water sources remained the same in all regions except Eastern region where changes were observed in 2010 and 2017.

Table 3-4: Household Sources of Water in the Dry and Rainy Seasons (2010 & 2017)

DRY SEASON								
Source of Water	e of Water Central Eastern Northern				Western			
	2010	2017	2010	2017	2010	2017	2010	2017
Drinking Water								
Piped water inside dwelling	0%	1%	0%	0%	0%	0%	1%	1%
Private outside standpipe/tap	0%	1%	2%	2%	1%	1%	0%	0%
Public standpipe/tap	4%	2%	2%	2%	14%	26%	0%	24%
Water vendor	5%	7%	2%	2%	2%	3%	5%	4%
Shallow well	45%	33%	5%	3%	19%	18%	1%	2%
Deep well	7%	4%	17%	50%	9%	10%	12%	17%
Hand dug well	1%	1%	35%	2%	8%	8%	14%	17%
Protected spring	40%	53%	5%	2%	19%	24%	22%	24%
Tanker service	0%	3%	2%	12%	1%	1%	4%	0%
Unprotected well	5%	3%	35%	30%	8%	2%	22%	9%
Unprotected spring	5%	3%	2%	0%	7%	2%	18%	17%
River/lake/pond	27%	26%	0%	0%	4%	3%	5%	2%
Rainwater	8%	13%	7%	7%	1%	4%	18%	4%
Other (specify)	6%	8%	5%	8%	44%	46%	7%	2%
Personal Hygiene								
Piped water inside dwelling	0%	1%	0%	0%	0%	0%	1%	1%
Private outside standpipe/tap	0%	1%	2%	2%	1%	1%	0%	0%
Public standpipe/tap	3%	2%	0%	0%	14%	26%	0%	26%
Water vendor	4%	8%	2%	2%	1%	2%	3%	2%
Shallow well	45%	34%	7%	8%	19%	19%	1%	2%
Deep well	9%	5%	15%	50%	10%	12%	16%	15%
Hand dug well	1%	1%	42%	3%	9%	8%	14%	18%
Protected spring	43%	54%	3%	2%	19%	23%	22%	26%
Tanker service	1%	3%	3%	13%	1%	1%	10%	0%
Unprotected well	6%	3%	40%	30%	8%	1%	22%	8%
Unprotected spring	5%	3%	2%	0%	8%	2%	17%	16%
River/lake/pond	26%	26%	5%	2%	4%	3%	6%	3%
Rainwater	3%	3%	8%	8%	1%	3%	21%	3%
Other (specify)	6%	8%	3%	8%	44%	43%	7%	1%
	RAINY SEASON							
Drinking Water								
Piped water inside dwelling	0%	1%	0%	0%	0%	0%	1%	1%
Private outside standpipe/tap	0%	1%	2%	2%	1%	1%	1%	0%
Public standpipe/tap	3%	2%	0%	2%	14%	23%	0%	21%
Water vendor	5%	4%	2%	2%	2%	2%	4%	16%
Shallow well	23%	32%	2%	5%	16%	18%	2%	1%
Deep well	3%	3%	17%	48%	9%	11%	16%	17%
Hand dug well	0%	1%	37%	8%	8%	9%	9%	12%
Protected spring	38%	43%	2%	3%	22%	23%	21%	25%
Tanker service	3%	6%	3%	12%	1%	0%	10%	5%
Unprotected well	3%	2%	23%	18%	8%	1%	26%	12%
Unprotected spring	3%	3%	0%	0%	6%	2%	15%	18%

River/lake/pond	23%	23%	0%	2%	4%	3%	6%	1%
Rainwater	78%	79%	43%	38%	17%	19%	45%	29%
Other (specify)	4%	7%	0%	8%	47%	45%	7%	2%
Personal Hygiene								
Piped water inside dwelling	0%	1%	0%	0%	0%	0%	1%	1%
Private outside standpipe/tap	0%	1%	2%	2%	1%	2%	0%	0%
Public standpipe/tap	3%	2%	0%	0%	11%	23%	0%	24%
Water vendor	4%	5%	2%	2%	2%	3%	1%	1%
Shallow well	26%	33%	7%	8%	17%	18%	2%	2%
Deep well	3%	4%	15%	48%	9%	11%	13%	20%
Hand dug well	0%	1%	40%	7%	14%	13%	10%	12%
Protected spring	36%	47%	2%	2%	21%	23%	21%	24%
Tanker service	3%	4%	3%	13%	9%	7%	11%	3%
Unprotected well	3%	3%	20%	17%	8%	1%	28%	12%
Unprotected spring	3%	3%	0%	0%	7%	2%	16%	18%
River/lake/pond	23%	26%	5%	5%	6%	4%	6%	2%
Rainwater	77%	81%	43%	40%	48%	41%	50%	48%
Other (specify)	4%	5%	0%	7%	38%	41%	7%	1%

Source: Consultant's household survey results

The main reasons cited for variance of use of water sources across the regions varied (Table 3-6). In Central, Eastern, and Northern Uganda it was largely due to closeness of the water sources, while in Western Uganda it was due to safety of the water from the particular source.

Table 3-5: Reasons for use of water sources by region

	9			
Reason	Central	Eastern	Northern	Western
No other option/only available in the locality	3%	8%	12%	32%
Water from this source is safe to drink	23%	8%	34%	39%
Closeness	53%	77%	47%	26%
No fees required	22%	2%	7%	2%
Other (specify)	1%	5%	1%	1%

In the regions visited as part of this evaluation, the trend in access is shown in figure 3-2 & 3-3 below.

Figure 3-2: Safe Water Coverage in Selected Districts in West Nile, Acholi, Lango, Karamoja, Teso, and Busoga sub-regions

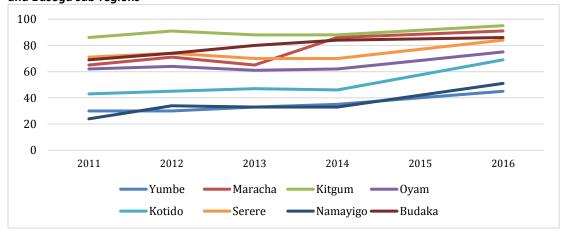
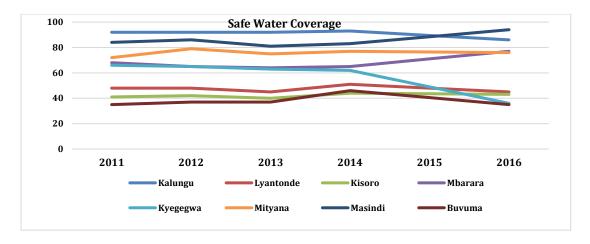


Figure 3-3: Safe Water Coverage in selected districts in Central and Western Uganda.



The above graphs (figure 3-2 & 3-3) show largely stagnant and slight net increase in access; the rate of such increase is consistent in only five districts (Maracha, Kitgum, Budaka, Serere and Masindi), which are likely to achieve the SDG goals. The only reasons so far advanced for the inconsistencies are "poor groundwater conditions" and significant growth in population that has outmatched investments in and supply of safe water facilities.

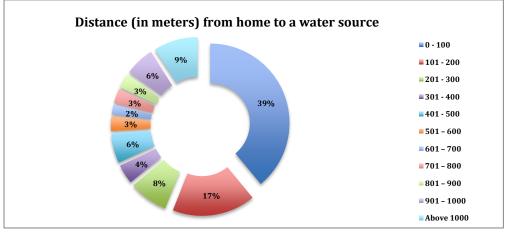
Household distance to sources of water used

The average (mean) distance to the nearest water sources for households that participated in the survey is 334 meters. The highest mentions were made of 200 meters distance from the home to the water source. Table 3-7 below summarizes mentions in ranges of 100 meters and clearly shows that the majority of water points are within 200 meters distance of the households.

Table 3-6: Distance from Home to Water Source

What is the distance from home to this	Mean	Central	Eastern	Northern	Western
source (in meters)?	334.35	432.53	82.64	291.73	425.18

Figure 3-4: Average Distance for households to the nearest water source.



The average time taken in fetching water (walking to the source, queuing, filling and return home) is 51 minutes which is about an hour (Table 3-8). This looks acceptable for a mean distance of 300 m.

Table 3-7: Average walking time for households to the nearest water source.

Activity	Mean Time (minutes)	Central	Eastern	Northern	Western
Walking to the water source (one way)	17.97	22.82	14.94	18.59	13.46
Queuing time at the source	8.12	6.55	8.07	10.15	6.14
Filling time	3.37	3.25	3.8	3.45	3.16
Returning home (carrying) water	22.23	28.68	15.83	22.09	18.58

Household volume (per-capita) of domestic water used

The average (mean) volume of water used for drinking and personal washing) in the household was 20.21 liters (Table 3-9). The regional outlook shows Eastern Uganda consuming the highest per capita volume of water at 30.05, followed by Northern and Central region. The Western region registered the lowest per capita consumption at 10.28 liters.

Table 3-8: Per capita volume of water

Volume (in liters) of water used for	Mean	Central	Eastern	Northern	Western
domestic purposes.	20.21	22.24	30.05	22.26	10.28

The average consumption hovers around the threshold value for the poor (15I) which means RWSSP is meeting the bare minimum. For the HHs. At this threshold the differences between regions is only attributable to availability.

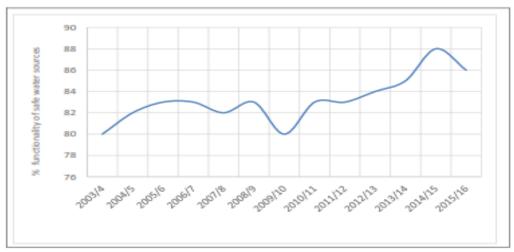
Functionality

Functionality is defined as the number of functioning improved water sources divided by the total number of improved water sources (Only point water sources are considered). The programme planned that functionality would be improved by:

- Improvements in community level management
- Training of HPMs and other artisans involved in O&M
- Regional spare parts depots would be established

Functionality of water points registered a positive trend between 2010 and 2014 and thereafter a decline as shown in Figure 3-5 below. The positive trend in functionality is because the current rate of repair is lower than the rate at which facilities break down²³.

Figure 3-5: Functionality of water points, national trends 2010 – 2016.



Source: Sector Performance Report, 2016.

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²³ SPR 2015/16 pg 24, section 4.3.2

Household access to sanitation generally registered a positive trend between 2010 and 2016 as shown in Figure 3-6 below. This positive trend is due to more households constructing pit latrines 24.

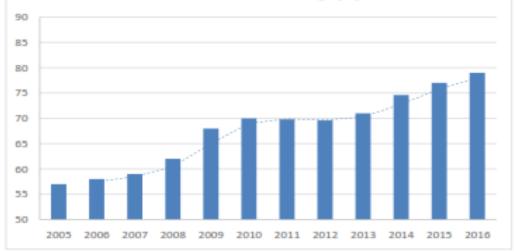


Figure 3-6: Household access to sanitation, national trends 2010 – 2016.

Source: Sector Performance Report, 2016

The trends of functionality in the study districts are shown in the graphs below. The graphs (figure 3-7 & 3-8 below) show consistent functionality with slight upward trends in about half of the districts (Mbarara, Lyantonde, Mityana, Budaka, Serere and Oyam). The other districts show the functionality is at best erratic and sometimes declining.

The main reasons given for erratic and sometimes declining functionality in other districts were:

- Poor collection of user fees, which means that repairs, cannot be done in time when facilities break down.
- Expensive spare parts.
- Over utilization of the water sources: In areas that are water stressed, the facilities do not rest. Consequently, they wear and tear quickly.
- The poor water quality in some situations leads to people abandoning the facilities.
- Fluctuation in yield and drying up of protected springs during drought period.
- Not enough funds for rehabilitation of the water sources sent by the ministry (15%).
- The WUCs lack post implementation support and refresher trainings to strengthen their voluntarism and commitment.
- The communities lack sustained sensitization on the O&M of the water facilities.
- The HPMs, though enough in the area, lack adequate repair tools.
- Some members in the community vandalise the boreholes for spares for their oxploughs.
- Some boreholes are located in individuals' gardens. Therefore, during planting season and until the crop is harvested, access to such boreholes is denied.
- Vandalization of part of water source especially hand pump parts and rainwater taps and gutters and solar panels by the community.
- Expensive cost of repairs; users end up putting back old parts or less pipes hence affecting functional.

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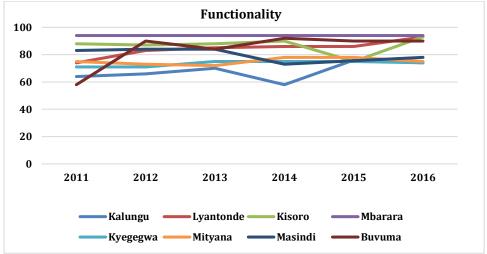
²⁴ SPR 2015/16 pg 108, section 8.3.2

"Poor quality of repairs, some HMCs always put back old leaking pipes because users can not afford to buy news one" (KII-DWO)

Functionality 100 80 60 40 20 2011 2012 2013 2014 2015 2016 Yumbe Maracha Kitgum Oyam Kotido Namayigo — Budaka Serere

Figure 3-7: Functionality in Selected Districts in West Nile, Acholi, Lango, KaramojaTeso, and Busoga sub-regions





Findings from the household survey (Table 3-10) also confirm the low levels of functionality. When asked whether the water source currently accessed has been malfunctioning, only 33% responded in affirmative. Northern region reported a higher percentage (48%) across the regions. Reasons provided for malfunctioning of the eater sources were varied but insufficient water and breakdowns stood out.

Table 3-9: Water source functionality and cause / specific problem

Question	Response				
	Overall	Central	Eastern	Northern	Western
Has this source of water supply ever been malfunctioning?					
Yes	33%	19%	23%	48%	31%
No	67%	81%	77%	52%	69%
What was the specific problem with this water source?					
Insufficient water quantity	34%	43%	71%	29%	27%

Water is not always available	7%	26%	7%	0%	11%
Poor water quality	11%	22%	7%	5%	22%
Stopped giving water in recent times	7%	0%	7%	10%	3%
Facility was broken	39%	9%	7%	53%	38%
Other (specify)	1%	0%	0%	2%	0%

Households further reported higher levels of functionality over the last 12 months (2017) as shown in table 3-11 below. Across the regions northern region reported lower functionality levels (37%) compared to Eastern (95%) and Central (81%).

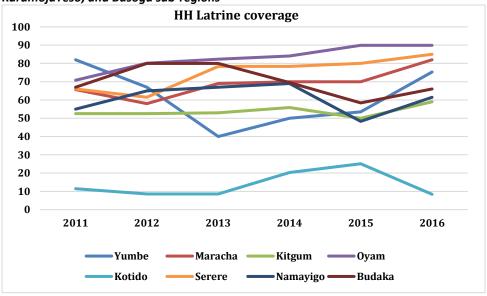
Table 3-10: Water source functionality over the last 12 months (2017)

Was this water source functional all the	Overall	Central	Eastern	Northern	Western
time in the last 12 months?					
Yes, fully and properly functional	61%	81%	95%	37%	61%
Yes, functional but not with adequate					
supply	33%	18%	3%	54%	30%
No, was functional for some time only	6%	1%	2%	9%	9%

Sanitation coverage and Practices

Sanitation coverage is defined as the percentage of households with access to improved sanitation. The programme planned that sanitation promotion objectives would be achieved by the use of advocacy, and shaming. The trends in sample districts are shown in the graphs (*Figures 3-9& 3-10*) below:

Figure 3-9: Household latrine coverage in Selected Districts in West Nile, Acholi, Lango, KaramojaTeso, and Busoga sub-regions



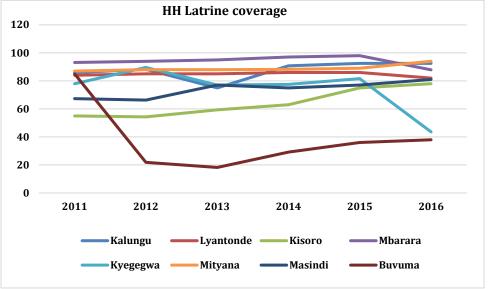


Figure 3-10: Household Latrine coverage in selected districts in Central and Western Uganda

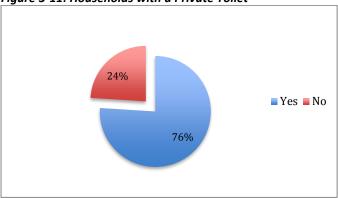
Apart from Oyam, Serere, Kisoro, Mbarara, Lyantonde and Mityana, the Latrine coverage reported was not improving in the other districts, with even alarming declines recorded. The reasons provided for the stagnant, declining and sometimes fluctuating performance were:

- Negative cultural beliefs and attitudes such as among the Bagwere (predominantly occupying Budaka District) where many believe that using latrines will make men impotent and women barren, while the Karamojong (predominantly occupying Kotido District) believe that the latrine is smelly and not supposed to mixed with fecal wastes of in laws.
- Latrine collapse noted during rainy season in districts like Maracha and Buvuma because of the loose soils.
- Rocky soils (about 5 meters) make it difficult to dig deep pit for a latrine especially in Kitgum, Kotido and Kapchorwa districts.
- Lack of appropriate and affordable nearly construction materials, for example in Kotido District, there are no easily accessible trees for using to construct latrines.
- The VIP latrines in the institutions cannot be emptied due to lack of funds and a cesspool emptier in the districts.
- Lack of security of tenure due to displacements associated with land acquisition and displacement for commercial and public investments, as was the case in Buvuma District.

Household Sanitation facilities and quality

Most households (*figure 3-11*) reported having a private toilet with pit latrine (with or without a slab constituting the main type of toilet in the households.

Figure 3-11: Households with a Private Toilet



The type of toilets varied across households but the dominant ones reported (*Table 3-12*) were those with slabs follow pit latrines without slabs.

Table 3-11: Type of Toilets in the Households

Type of toilet	Overall	Central	Eastern	Northern	Western
Pit latrine with slab	43%	30%	22%	53%	54%
Pit latrine without slab	55%	65%	76%	47%	44%
Pour flush	1%	1%	0%	0%	1%
Flush toilet with septic tank	0%	1%	0%	0%	0%
Public toilet	0%	0%	0%	1%	0%
No toilet	0%	0%	0%	0%	1%
Other (specify)	1%	3%	2%	0%	0%

Although households reported sharing latrines, the majority 63% reported not sharing. This same picture is provided across the regions with Western Uganda showing the lowest incidence of shared latrines (Table 3-13). Key among the reasons provided for sharing latrines was the shortage of money to construct one's own.

Table 3-12: Households sharing of toilet facilities and why

Question			Response		
	Overall	Central	Eastern	Northern	Western
Is the toilet facility shared with other h	ouseholds?				
Yes	37%	42%	35%	42%	28%
No	63%	58%	65%	58%	72%
Why didn't you construct your own hou	usehold latrin	ie?			
Do not have enough land	16%	11%	12%	6%	36%
Lack of skill to construct	13%	8%	8%	26%	2%
Do not consider it important	6%	3%	0%	12%	2%
Shortage of money	37%	31%	53%	51%	14%
Shortage of building materials	14%	6%	5%	27%	7%
Other (specify)	44%	51%	32%	40%	48%

While the distance to the toilet varied from a few meters to 100 meters, the average distance to the toilet was found to be 23.52 meters. The variance across the regions wasn't very significant with Northern Uganda reported the shorted distance and Western Uganda the longest distance (*Table 3-14*).

Table 3-13: Average walking distance to the toilet (m)

Overall	Central	Eastern	Northern	Western	
23.52	22.74	22.18	21.72	27.26	

In terms of walking time to the toilet, most (83 percent) respondents reported less than ten minutes with exception of Central and Western Uganda where distance of above 10 minutes were reported (Table 3-14).

Table 3-14: Per entage of HHs with Walking time to the toilet <10 min

Minutes	Overall	Central	Eastern	Northern	Western
1	83%	80%	80%	86%	84%
2	8%	5%	10%	8%	9%
3	2%	3%	2%	2%	2%
4	1%	1%	0%	2%	1%
5	4%	6%	8%	3%	1%
6	0%	1%	0%	0%	0%
7	0%	1%	0%	0%	0%
10	0%	0%	0%	0%	1%
15	0%	0%	0%	0%	1%
20	0%	1%	0%	0%	0%
30	0%	1%	0%	0%	0%
45	0%	1%	0%	0%	0%

The mean walking time to the toilets was found to be 1.65 minutes with Northern Uganda reporting the lowest time of 1.27, which corresponds with the findings in relation to distance to the toilet where the shortest mean distance was also reported in Northern Uganda. Table 3-16 below shows comparisons across the regains with northern Uganda having the shortest average time and central Uganda the highest time.

Table 3-15: Average walking time to the toilet (min).

Overall	Central	Eastern	Northern	Western
365	99	50	120	96
1.65	2.42	1.46	1.27	1.45

Household hand-washing facilities and practices generally remains weak with 51% of households reported that they did not have hand-washing facilities at their latrines (Table 3-17). This was confirmed further when asked if soap or a substitute is present at the hand washing facility, and the majority households except in Eastern region reported no.

Table 3-16: Hand-washing facilities at Toilets

Question			Response	2			
	Overall	Central	Eastern	Northern	Western		
Does this toilet facility have hand-washing	acility with	within thr	ee meters?	?			
Yes, hand-washing facility is available							
within 3m	41%	20%	82%	50%	34%		
Yes, hand washing facility is available							
but farther than 3m	8%	13%	0%	5%	9%		
No, hand washing facility is not							
present	51%	67%	18%	45%	57%		
Is soap or soap substitute present with the hand washing facility?							
Yes	42%	44%	60%	43%	27%		
No	58%	56%	40%	57%	73%		

The trend of open-defecation practices in this community was generally reported to be decreasing (3-18). A similar trend was reported across the regions. While this is commendable, the fact that open-defecation still exists points to a need for further interventions in this regard to ensure that households have latrines or toilet facilities and any cultural practices that promote the practice are addressed.

Table 3-17: Households Perceptions about open-defecation

What is your opinion on the trend of open- defecation practices in this community?	Overall	Central	Eastern	Northern	Western
Increased	5%	5%	3%	4%	7%
Remained the same	17%	25%	7%	21%	9%
Decreased	55%	37%	67%	55%	66%
Do not know	23%	33%	23%	21%	17%

Governance of Water Sources

The evaluation team sought to establish participation of household in planning, construction, and payment of user fees and regular maintenance of water sources in order to assess governance and functionality of water sources. In this regard, households were asked a number of questions and the responses are presented below.

Households were asked if any member of your household participate in the planning of the construction of this water supply, with the majority reporting no participation (Table 3-19). Across the regions participation in planning was lowest in central and northern region and this can be partly attributed to the fact that in central region most services are paid for and your ability to pay determines access to water, but also because most people are pre-occupied with earning a living they tend to participate less in community planning events. In Northern Uganda, the low participation was attributed to a general feeling that it is a waste of time since politicians tend to hijack the process.

Table 3-18: Household participation in governance of water supply

Question	Response					
	Overall	Central	Eastern	Northern	Western	
Did any member of your household participate	in the plan	ning of the	constructi	on of this wat	ter supply?	
Yes	14%	3%	48%	8%	14%	
No	86%	97%	52%	92%	86%	
Did your household participate in the choice of	f the type of	water sup	ply constru	cted?		
Yes	11%	3%	38%	8%	12%	
No	89%	98%	62%	92%	88%	

In regard to contributions towards water supply projects in the community, the study established that only 17% of the households made a contribution (Table 3-20). Across the regions Eastern Uganda recorded the highest percentage of households acknowledging contributing towards water supply projects, while central Uganda registered the lowest. The low contributions in central Uganda are also linked to the fact that services are paid for unlike in the other regions where communities take a greater interest due to the water conditions. Where households have made contributions, most was in the form of labour. Contributions were also made towards both labour and materials and for a combination of labour materials and cash.

Table 3-19: Households Contributions to construction of water supply

Question	Response						
	Overall	Central	Eastern	Northern	Western		
Did you contribute any input for the construct	ion of the w	ater supply	?				
Yes	17%	4%	57%	14%	13%		
No	83%	96%	43%	86%	87%		
What was your contribution for the constructi	on of the wa	ater supply	?				
Labour	65%	20%	82%	62%	50%		
Materials	16%	0%	12%	12%	38%		
Cash	12%	0%	15%	12%	13%		
Labour and Materials	27%	20%	56%	8%	0%		
Labour and Cash	17%	0%	35%	4%	6%		
Materials and	5%	0%	9%	4%	0%		
Cash	12%	20%	6%	23%	6%		
Labour, materials and cash	17%	40%	26%	8%	6%		
Other (specify)	2%	0%	0%	8%	0%		

Fencing of water sources was generally low except in Eastern Uganda where it stood at 53% (Table 3-21). Excavation of drainage ditches was generally observed with central reporting the lowest percentage (48%). Protection of water sources from animals was also undertaken across the regions with the highest percentage reported in Eastern region (80%). The general performance in regard to protection of water sources from vandalism and animals suggests need for further improvements if water safety is to be guaranteed.

Table 3-20: Protection of water sources

Is the water source protected from animals and vandalism?	Response	Overall	Central	Eastern	Northern	Western
Is fenced?	Yes	35%	37%	53%	35%	26%
	No	65%	63%	47%	65%	74%
Has drainage ditch been	Yes	64%	48%	60%	70%	73%
excavated?	No	36%	53%	40%	30%	27%
Is protected from contact with	Yes	59%	68%	80%	52%	50%
animals?	No	41%	32%	20%	48%	50%

Responses from the households surveyed shows that community members have largely been responsible for the management of water sources. In Eastern Uganda only 2% of households surveyed indicated that Water User Committee was responsible for the management of water sources (Table 3-22). The general and regions specific feedback shows that WUC are largely non-functional leaving community members to take over the responsibility for the management of water sources.

Table 3-21: Management of Water Source

Who is responsible for managing this water source?	Overall	Central	Eastern	Northern	Western
Water User Committee (WUC)	13%	2%	2%	18%	23%
Community members	62%	44%	82%	76%	49%
Person hired by the community	15%	6%	2%	17%	30%
Do not know	19%	47%	13%	10%	7%
Other (specify)	3%	4%	5%	4%	0%

Household Water-related Morbidity (Burden of Disease)

Findings from the household survey (3-23) shows that generally household health conditions were good with only 20% of households reported that a member of their household had suffered in the last 14 days before the survey by season. Eastern and Central regions reported the lowest incidences. Among the districts, Yumbe district reported the highest incidence of diarrhea (48%) during the same period.

Generally the reported incidences of diarrhea were new cases with only a few respondents reporting that they were a continuation from the previous four weeks. Respondents also noted that there was no blood in their stool.

Table 3-22: Diarrhea incidence in last 14 days

Did any member of this household experience diarrhea in the last two weeks?	Overall	Central	Eastern	Northern	Western
Yes	20%	16%	10%	22%	26%
No	80%	84%	90%	78%	74%

On whether the household Incidence of suspected diarrhea in the last five years between 2010-2017most (73%) households noted that it has decreased (Table 3-24). Eastern region reported no increase while central region reported the highest increase (10%). The increase in central region can be attributed to the degradation and encroachment of swamps, which cause flooding in low-lying areas hence cholera and other suspected diarrhea cases.

A similar trend was reported in the community as a whole with households observing a decrease in the incidence of suspected diarrhea

Table 3-23: Trend in incidence of diarrhea in the households and the community

•		Response								
Question	Overall	Central	Eastern	Northern	Western					
How do you describe the incidence of diarrhea in your household over the past five years?										
It has remained the same	21%	40%	5%	19%	12%					
It has increased	7%	10%	0%	8%	5%					
it has decreased	73%	50%	95%	73%	83%					
How do you describe the incidence of dia	rrhea in your	community	/village ove	r the past five	e years?					
It has remained the same	19%	36%	7%	19%	7%					
It has increased	8%	13%	2%	7%	8%					
it has decreased	73%	52%	92%	74%	84%					

Perceptions about the quality of water source used for drinking as shown in table 3-25 below generally varied but were on the whole good (69%). Across the regions, a similar trend is shown with majority households reporting that the quality of the eater is good.

Some of the reasons provided for the bad perceptions included the water being: salty, having an iron taste and contamination by animals.

Table 3-24: Perceptions about water quality

Question	Response					
	Overall	Central	Eastern	Northern	Western	
What is your perception about quality o	f water fro	m this sour	ce?			
Very Bad	3%	0%	0%	2%	10%	
Bad	5%	9%	2%	2%	6%	
Reasonable	21%	26%	13%	26%	13%	
Good	47%	50%	68%	50%	27%	
Very Good	22%	14%	13%	17%	41%	

Don't Know	2%	1%	3%	3%	2%
Give the reason (s) for your perception.					
Water is salty	26%	3%	55%	40%	12%
Smells bad	11%	10%	2%	19%	6%
Tastes bad	10%	7%	0%	17%	9%
Water is muddy	8%	6%	8%	13%	3%
Contaminated by animals	14%	16%	0%	16%	17%
Iron taste	16%	6%	0%	29%	16%
Other (specify)	50%	70%	37%	41%	50%

3.5. Impact

The evaluation team sought to establish the extent to which the project generated changes or effects, including resulting from the activities and impacting local social, economic, environmental and other development indicators. Findings are presented below.

3.5.1. Intended impacts

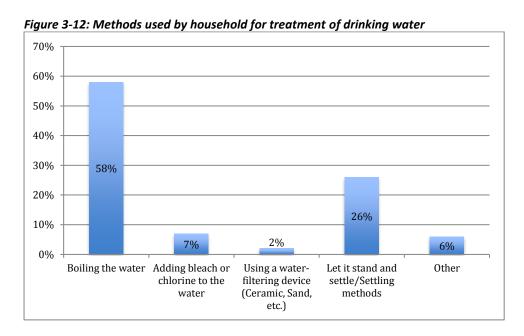
The intended impacts of the W&S projects are normally:

Reduction in incidence of water borne diseases

There was clear recognition by the communities that safe water is necessary for prevention of water borne diseases. An examination of the health data was undertaken for sample health centers visited by the field teams.. There was not sufficient information to attribute particulat conditions to unsafe water sources or poor hygiene.

At the household and community level, it is reported that the incidence of diarrhea over the past five years has decreased. This improvement can be attributed in part to access to safe drinking water and improvements in hygiene practices as elaborated in the subsequent sections.

For example, when respondents were asked "which method is used for treatment of drinking water?" the majority - 58% of households (12) - cited boiling water, followed by 26% for settling (Figure 3-12).



Improvement in school attendance

THE RWSSP sought to cause an improvement in education outcomes through improving school attendance especially for children especially girls. The evaluation team therefore sought to know if there have been any changes in enrolment and attendance of pupils from communities where water and sanitation projects were implemented. There was anecdotal evidence from key informants that school attendance was consistently high where there were functioning water sources, and low where there were no functional water sources. The evaluation team could not access baseline data to comparatively conclude about these positive outcomes.

"Since the installation of this water tap in our school, cases of absenteeism have greatly reduced and parents are now even enrolling their children in boarding section noted the head teacher." (Key Informant, Kalabang primary school in Namokora sub-county)

However it is important to note that it was not possible to compare results in beneficiary and non-beneficiary communities and as such attribution of improvements in enrolment to the RWSSP can only be presumed given that the government through the Ministry of Education and that of Gender have deliberate programmes for improving enrolment and retention of children and especially girls in school.

Besides as noted in the limitations, the timing of the survey coincided with activities for school closure namely examinations and school authorities could not avail the field research teams with data on enrolment and retention which would have enabled a more detailed analysis of enrolment, attendance and dropouts.

Improved community relations and reduction in gender based violence

Previously strained community relations associated with overcrowding at water sources were reported to have declined where new facilities were put up. Improvements of access to water and proximity to eater sources not only reduced time it takes to collect water for household members especially women and girls but also made it possible for water to be collected over a shorter time.

This contributed to a reduction in the burden of work for women and girls children and contributed to a reduction in domestic violence associated with lack of nearby and safe water sources.

For instance, in Ekarikofe one woman reported that her husband had been regularly beating her because of her assumed delays "while purportedly collecting water". She said the beatings have stopped since the new borehole was installed nearby (at Loinya Primary School), as she now takes shorter times to collect water.

In Erafia Village in Yivu Sub-County, the users of Erafia Community Borehole noted that in the past years, they used to share their water source with other two nearby villages and there was overcrowding. But ever since the neighboring villages got their own facilities, there is no more overcrowding around their source.

"You could finish like three hours and more just waiting for water when we used to share with our neighboring villages but now you only take less than thirty minutes if at all there are many people."

"Women in the area used to move long distances to fetch water, sometimes before day break. This was from open sources and would be a source of conflicts and violence in homes due to the extended time the women would take to return home. However, since the programme implementation, access to safe water within communities has improved. As a result, domestic violence caused by water scarcity has reduced" (FGD Maracha, Yivu SC)

Improved hygiene

Users at the water points interviewed reported increased wash frequencies (clothes and self) because of the presence of the new water point (for example Lodele community borehole in Kotido district, Nakapelimoru sub-county).

3.5.2. Unintended impacts

Accumulation of loanable funds

In Serere, Olio Sub county water user committees have formed an association of water source treasurers, where funds are pooled for lending to member committees for water point repairs.

What is even more, the association now lends money to registered members of the respective water user committees (SACCOS like).

Time Savings, Use and Labour

Overall, a majority of households (48%) reported no time savings in regard to time taken to fetch water (Table 3-26). This was particularly the case in central (71%) and in Western (50%) and Northern (49%) regions.

Table 3-25: Reduction in time to fetch water

Has time to fetch water reduced in the last five years?	Overall	Central	Eastern	Northern	Western	
Yes	48%	29%	72%	51%	50%	
No	52%	71%	28%	49%	50%	

Time savings were greatest in relation to cooking activities. As shown in the table below 3-37the lower percentage for central is not surprising given the coverage of piped water which means the majority get water right in their homes. However in eastern, western and northern regions, the time savings were significant given the reliance on non-piped sources of water.

Table 3-26: Time saving realized in the following activities

On which activity is the time saved from fetching water mainly spent?	Overall	Central	Eastern	Northern	Western
Cooking and other domestic activities	65%	31%	88%	63%	72%
Spent on productive unpaid labour Fetching fire wood Spent on productive paid	28%	29%	0%	41%	26%
labour	17%	3%	7%	17%	31%
Unpaid farm labour	14%	14%	0%	13%	26%
Spent on income generating activities	35%	14%	5%	51%	43%
Paid farm	4%	0%	9%	2%	5%
Labour	10%	14%	0%	18%	3%
Other (specify)	5%	20%	2%	3%	0%

Overall, no time reduction was reported in regard to the distance walked to a toilet facility, and more specifically in central and northern regions (Table 3-28). In Eastern and Western region time savings in distance walked was however reported.

Table 3-27: Reduction in time to walk to toilet facility

Has walking time to toilet facility reduced in recent years?	Overall	Central	Eastern	Northern	Western
Yes	39%	13%	68%	37%	52%
No	61%	87%	32%	63%	48%

3.6. Sustainability

The extent to which the project generated benefits that are likely to continue even after the project ceases.

The sustainability of projects outcomes and impacts depends on the ability to maintain the WSS infrastructure, the capacity for O&M of the infrastructure and the effectiveness of the support to the WUCs (in case of water sources) and HHs (in case of sanitation facilities).

3.6.1. Sustainability of WSS infrastructure

Households were asked if their current water sources were functional in the last 12 months and it is worth noting that overall the response was positive (Table 3-29). Across the regions, Northern Uganda generally registered the lowest score in regard to functionality of water sources, which was in part attributed to the movement of households from one location to another location as part of the resettlement process. This meant that water user committees and hand pump mechanics would not be available to ensure functionality of water sources.

Table 3-28: Functionality of the nearest water source to the household in the last 12 months

Has your current water source been functional over the last 12 months?	Overall	Central	Eastern	Northern	Western	
Yes, fully and properly functional	61%	81%	95%	37%	61%	
Yes, functional but not with adequate supply	33%	18%	3%	54%	30%	
No, was functional for some time only	6%	1%	2%	9%	9%	

A number of factors were identified that affected sustainability of the WSS infrastructure:

Long-term viability of the sources of water

The Programme is supposed to have Water Resource Management Programme; that involves studying the water quantity. This will help in future planning to determine the depth of drilling and type of technology to be used. Whether present source will continue as a viable water source can only be determined by scientific evaluation. At present the WRMD has rules of thumb for such determination.

Water sources drying up are reported in all districts is a clear sign that the phenomenon is not well understood, let alone taken care of in the planning. Whereas a water resource-monitoring programme (WRMP) has recently been started, it will be noted that sustainability of the old sources that pre-date the establishment of the WRMP, cannot be assessed now.

The achievements of the programme will therefore be unknown until this phenomenon is adequately catered for in the planning.

Quality of new infrastructure

Quality of construction is a big factor in the sustainability of the new infrastructure.

Among the new water points visited, 80% of the sources had a malfunction within the first year of operation. This shows the poor quality of materials or of works and implementation

of the DLP control regime. The reasons that have been adduced at the district were usually due to:

- Poor quality pipes leading to early leakages
- Poorly threaded connecting rods, and
- Poor workmanship.
- Poor supervision during construction and corruption.

Arrangement of repairs

If a facility has failed, the cost of repairs is first established by the HPM before a decision is made as to whom to repair it. The reporting format is as follows:

- 1. When a facility fails, the chairman WUC informs the CDO or LC III at the S/C about the failure.
- 2. The CDO/LC III sends the HPM to assess the damage and cost of repair.
- 3. The HPM assesses and informs committee of the cost.
- 4. The committee/SC/DLG as necessary provides the necessary funding for the repairs.

In practice however many WUCs do initiate repairs without reference to the DWO or S/C. Such incidences can lead to undesirable outcomes, which can be avoided if repairs are properly assessed and contracted.

Financing of repairs

DWD have divided repairs into three types:

- **Minor** repairs, which are to be implemented by community. These are defined as repairs below UGX 500,000.
- Major repairs, which are to be co-funded by the sub county. These are repairs costing UGX 500,000 to UGX 1,000,000.
- **Major** repairs, which are to be entirely financed by the DLG. These are repairs that are beyond UGX 1,000,000.

Communities finance their repairs through user contributions. Some communities have succeeded in enforcing mandatory monthly contributions. Where such mandatory contributions are implemented, the facilities were seen sustainable, as there were everpresent funds for repairs. Other communities using a reactionary approach only collected contributions when the facility had broken down. The evaluation found that most of the nonfunctional BHS belonged to the latter group.

Household opinions were sought in regard to the amount paid for water and overall a majority considered it to be either reasonable or cheap (61%). In Eastern Uganda however the opinions were split with 50% seeing the amount paid as expensive (Table 3-30).

Table 3-29: Perception about user fees

What is your opinion about the amount you pay for water from this source?	Overall	Central	Eastern	Northern	Western
Expensive	39%	10%	50%	37%	47%
Reasonable	55%	90%	33%	63%	44%
Cheap	6%	0%	17%	0%	8%

Sub-counties have own budgets for the major repairs, funded from DCWSCG. District budgets for repairs are in the region of two boreholes per annum²⁵, meaning in any given year not all sub-counties will implement a rehabilitation project.

²⁵ DWO Yumbe

DWO runs the budget for district repairs. DWOs budget for repairs are in the region of 4% of the DWSCDG. The boreholes that require rehabilitation are itemized in the budget annually. For all the sampled districts, the numbers of boreholes awaiting rehabilitation were increasing per year; meaning that breakage down or failure rates were higher than provision for repair and rehabilitation; or the rehabilitation programming/planning efforts were not being actualized for a number of reasons including financial constraints. This is one of the major factors compromising program impact and sustainability.

Quality of the repairs

Repairs are undertaken by registered HPMs registered where. However, the quality of repairs is generally poor, mostly arising out of unaffordability of spares: the most common repair itemare pipes. However, because of the sheer cost of such repair, HPMs often resort to just bandaging pipes. An example is Kakoo borehole in Namokora S/C of Kitgum district, where the B/H had broken down in May, and after repeated bandaging of pipes the B/H was abandoned because users were unwilling to continue contributing to repairs which did not provide long term service. In the process the BH is slowly but surely degenerating. Such quality of repairs renders the facility unsustainable in the long run. There was little governance for quality control and to certify the repair works undertaken by HPMs to make sure that communities got value for money during such repairs. While the HPMs were also supposed to regularly advise the water users and WUCs on maintenance and repairs, this was not regularly done.

User perceptions

The majority of households interviewed as part of the survey generally noted that there is no specific eligibility criteria for accessing a water source (*Table 3-31*). Where there was a criterion, the majority observed that it was in relation to contributions for repair and maintenance of the water source (*Table 3-11*).

Table 3-30: Eligibility Criterion for accessing a water source

Ouestien Despense						
Question	Response					
	Overall	Central	Eastern	Northern	Western	
Are there any eligibility criteria to use this water source?						
Yes	32%	14%	52%	36%	36%	
No	68%	86%	48%	64%	64%	
What are the criteria?						
Resource contribution for scheme construction Resource contribution for repair and	6%	0%	0%	6%	11%	
maintenance	63%	6%	90%	92%	25%	
Payment for water use	32%	41%	10%	11%	75%	
Other (specify)	6%	53%	0%	2%	0%	

Furthermore, households noted that responsibility for managing the water source lay largely in the hand of the community, which is a positive sustainability indicator. Water User Committees received highest mentions in Western and Northern Uganda.

Table 3-31: Responsibility for management of the water source.

Who is responsible for managing this water source?	Overall	Central	Eastern	Northern	Western
Water User Committee (WUC)	13%	2%	2%	18%	23%
Community members	62%	44%	82%	76%	49%
Person hired by the community	15%	6%	2%	17%	30%
Do not know	19%	47%	13%	10%	7%
Other (specify)	3%	4%	5%	4%	0%

Among the non-functional boreholes visited by the evaluation team, many of the WUCs members and users were not aware of the actual costs of spare parts and for the repairs for the outstanding work. There should a mechanism to address this loophole to avoid exploitation from side of the users.as it would improve transparency in community management.

3.6.2. Sustainability of sanitation interventions

Sanitation interventions under RWSSP

Sanitation interventions for sanitation under RWSSP consist almost entirely of software activities. The programme implements these as one-off activities (plays, shows etc.) in communities. There is no structure or function left in community to strengthen or continue the activity. There is no sustainability of such sanitation interventions. Though MWE was reported to have created local committees for sanitation, the consultant did not come across any such committee in the districts visited. Neither are they included in the institutional framework defined by MWE. It is therefore necessary to identify a role for both The DWSCC and the village committees to ensure these activities are continued..

The other aspect is to promote sanitation by twinning conditions for provision of the water facilities. After the water facility is implemented, some of the sanitation facilities put up by HHs degenerate and collapse. One missing component is to support and strengthen enforcement of the public health act about sanitation.

Public toilet facilities under RWSSP are rare. In Buvuma (Nairanmbi S/C, Tojjowe village), the evaluation team came across an old public toilet that had been constructed by government for public use. It was free to use, but O&M was not clearly spelt out and was not in place. The facility was abused and finally collapsed.

Sanitation interventions by sister MDAs

MWE has memorandum of understanding with MoH and MoES that provided for MoH and MoES to be in charge of construction of sanitation facilities and hygiene promotion in Health units and in schools respectively.

The sanitation related budgets for the period 1998/9 -2002/3 is shown in the table 4-1 below.

Table 3-32: Sanitation expenditure 1998 - 200326

and of the same and the same an							
Source	!	Uganda Shillings (in Millions)					
		1998/99	1999/2000	2000/01	2001/02	2002/03	
DWD (Rural Latrine construction &		3,464	2,808	11,091	5,585	5,818	
Hygiene promotion)							
1.1.1	MoH (Environmental Health)	251	241	665	438	587	
1.1.2	MoES (School Latrines	1,462	3,237	4,368	6,277	6,367	
	Hygiene promotion)						

However, by 2017, MoES, officials interviewed were not aware of the MoU or of any budget line for this activity. The District education officers have informed the researchers that they do not have a budget for sanitation facilities or hygiene promotion for their schools. The schools rely on funding from either parents or NGOs.

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²⁶ SPR 2003

Ministry of health (2017) did not have a specific budget line for sanitation. The MOH SPR 2015/1627 only reports that Environmental health initiatives were implemented with support from UNICEF and Uganda Sanitation fund.

It is apparent that MoH and MoES no longer prioritise sanitation intervention in their planning/budgeting.

3.6.3. Sustainability of Institutions

Water user committees

The programme mobilizes communities to form committees, which are then trained for O&M of the facility. All water points were originally begun with functional user committees; several examples were seen of nonfunctional WUCs.

Standard procedures specified in the CBMS have been employed in training communities. Some deviations have been introduced by NGOs, who have introduced incentives and business principles to the WUC operations.

Most HHs and users at water points expressed confidence in their WUCs, which went a long way to show their sustainability as community management structures. However, none of the WUCs interviewed had a plan for improvement or upgrading of their facility. This means they may not be prepared for the next big failure, which can affect their sustainability as a community management institution. This objective needs to be inculcated in committees.

NGOs, Humanitarian organizations, and CBOs

RWSSP also planned to improve capacities of NGOs and CBOs in districts.

The list of NGOs registered in the districts is shown in the Annexes to the SPRs. MWE collaborates with NGOs and supports them through the Uganda Water and Sanitation NGO Network

The evaluation found the capacity development in NGOS in districts unsustainable, as it depends entirely on sensitization and community mobilization contracts given out by the districts. NGOs address particular needs in time that are location specific. Their target interventions and therefore capacity needs are changing, which should be reflected more in the NGOs own capacity plans. Public investment should be towards meaningful collaboration with NGOs rather than building up NGOs.

Hand Pump Mechanics Association (HPMA)

The HPMA is a major actor in the RWS sector. It registers and regulates HPMs. The HPMA is supposed to be supported through individual subscriptions from HPMs.

HPMAs are still nascent organizations, many of them without written regulations and guidelines. Even premises for their operations were not seen except where the DWO allocates a room for them in the district offices. Their memberships are not yet contributing financially yet the DLG does not also provide financial support to the HPMA etc.

The evaluation found that the HPMAs are not yet sustainable, and will remain so unless positive steps are taken to make them sustainable. Such positive steps include: ability to generate own revenue (through contracts, member contributions etc), ability to (financially and technically) support member HPMs, ability to ensure quality services — and therefore marketability — of members services etc.

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²⁷ Health SPR 2015/16, pg. 49; section 4.1.2.

3.6.4. Sustainability of support services

TSU support services

The TSU has been implemented as a major de-concentrated support structure to districts, while MWE itself provides policy interventions.

The evaluation found the concept stable and sustainable. However the funding is not within GoU Budget and therefore sustainability of the unit is questionable. Also, the aim of having the DLG and LLGs capacities built over the program time would see a diminishing role of the TSU. This is not foreseeable, as DLG and LLG and WUCs capacities are still unstable and wanting. In particular, LG capacities need support/training owing are in a state of flux owing to high staff turnover and formation/upgrading of HLGs and LLGs.

DLG service delivery

Local governments have permanent staff for service delivery, led by the DWO. RWSSP has tried to improve the DLG capacity through trainings and mentoring, while occasionally providing seconded short-term staff directly to districts. DWD.

However, the evaluation found that the district capacities have been unsustainable over recent years because of the high turnover. For example, TSU 1 has lost 4 out of 16 District Engineers to UNRA and UNICEF, in recent years. Furthermore, post construction support is lacking, as evidenced by lack of follow up for WUCs.

Moreover, the provision of short-term staff to DLGs by MWE is not sustainable, as MWE can be easily overwhelmed when DLGs delay to recruit their own staff.

3.7. Quality of Project Implementation

3.7.1. Technical quality of projects implemented

Technical quality is still lacking in some projects. The main reason adduced were:

- Poor technical planning: this includes Poor design (e.g. Rainwater harvesting tanks with inadequate guttering in Lwabenge, lack of screening in Dele PS) and occasionally poor siting of BHs leading to dry wells.
- Poor supervision: The technical supervision of construction work is done by the DWO.
 However there were reports that some contractors complete work even without the
 DWO visiting the site! For example in Ukuban BH Arriwa S/C in Yumbe District, the
 community said they had not seen the DWO during construction of the B/H. The BH
 was unusable after construction and has been abandoned. There needs to be an
 inclusive supervision to allow contribution of all parties to the supervision effort.

The evaluation foud the problems were not systemic and can easily be addressed with existing QA procedures through the TSUs.

3.7.2. Nature of project management

The programme is centrally managed at MWE. Project management relies heavily on M&E data generated by districts. There is an M&E division in MWE, which guides the programme decision-making at MWE. The district planning unit handles the M&E function in the district. The evaluation noted the following shortcomings:

 The DIM does not have clearly defined sanctions for ensuring compliance of DLGs with programme procedures. This reduces the effectiveness of project management at the MWE.

- There was no guideline in the DIM on how to use M&E data for decision-making at the DLG level. And none of the districts has demonstrated the use of M&E data for decision-making. Apparently the district only generates M&E data for transmission to MWE.
- Contract management and Site supervision are NOT delegated to SCs and to WSCs.
 These lower levels did not feel part of the project and usually blame the DLG for any failures.

3.7.3. Strategies for stakeholder engagement

The DIM contains no particular strategies for stakeholder engagement. No district visited had a SEP for the RWSSP to guide collaboration and implementation. While this provision was not in the DIM, the capacities of most of the DLGs to develop and implement SEPs for the RWSSSP were also not well demonstrated in discussions with DLG officials.

We however saw some ad-hoc stakeholder engagement implemented without a SEP:

- Yumbe district has taken advantage of the NGOs constructing water points in the district for refugees. The DLG passed a resolution that 30% of new water points constructed by such NGOs shall be located in other sub-counties outside the subcounty the hosting refugees.
- In Masindi, WaterAid and WaterTrust have shared their planning with the DWO, which has resulted in improved co-ordination of investments.

In the end, the primary aim of the DLGs was seen as the increase in stock of water points, and involving only one actor at a time. The engagement did not lead to a holistic sector wide impact.

3.8. Veracity of RWSSP database

The published figures regarding outcomes of the safe water investments in the sector are not robust and sensitive, and therefore no so accurate. Examples:

- Access is determined by multiplying the number of sources with a predetermined number of persons. These may not necessarily be the actual number of users, and even then, it cannot be said that they are within 500 m as specified by the RWS guidelines.
- Access to improved water sources is not necessarily access to safe water. Some
 districts have constructed (patently unsafe) shallow wells in preference to deep wells
 in order to increase the source count. If the present drive by DWD to consider only
 deep wells matures, then the access levels when recalculated will be spectacularly
 low.
- Functionality of water points are at best desk estimates; as regular visits to water facilities are actually far between: some facilities were found non-functional and actually abandoned by the users but were out of the knowledge of the sub county and district technical officers.
- Per capita investment is called "value for money" instead of a yardstick for prioritizing investment. A new calculation is required for value for money.
- Miscalculations appear frequently in the database. For example, the population numbers used in access calculation in Kyegegwa up to 2014 were low. Subsequent access figures showed a steep decline when the population data was updated with the 2014 census figure. Non-functional water sources ("so far as they do not exceed five years") when used for calculation artificially boost access figures.

There were even discrepancies between the figures contained and used in the central database at MWE as compared to the figures given to the evaluation team at the districts.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. Conclusions

4.1.1. Summary of impacts

The study shows that whereas the programme outputs were clear and can be counted, the impacts were much less clear (reduced disease burden, increased productivity and community relations etc.). Even where there are perceived impacts, they cannot be easily quantified. This is because there is no clear and readily available baseline data of the situation THEN; that can be used to compare with the situation NOW; within the program areas of intervention.

4.1.2. Technical Maintenance activities by CBMS

There are three possible levels of maintenance:

- Preventive maintenance, whereby a facility that is performing satisfactorily is
 prevented from developing a fault by ensuring ideal operational conditions (e.g.
 lubrication in the case of hand pumps, and catchment protection in the case of
 springs);
- Corrective maintenance whereby the facility that is performing below satisfaction because of a developing problem; and is to be restored to satisfactory operating condition by replacement of the wearing parts (e.g., rubber cups, pipes beginning to leak in the case of hand pumps or wing wall/diversion wall repairs in the case of springs etc.)
- Breakdown maintenance whereby the facility that is not performing at all is to be restored to satisfactory operation

WUCs were only found to be implementing breakdown maintenance. Their appreciation and knowledge levels about the significance of preventive and corrective maintenance were low. This could, as already pointed, be partly a limitation in the design of the capacity building component for the CBMS. Even with a bit of preventive and corrective maintenance, major breakdowns could be delayed.

4.1.3. Memorandum of understanding between MWE, MOH and MOES regarding sanitation is dead

With sister MDAs either not aware or not caring for (their) complementary sanitation obligations, it is quite clear that the responsibility for sanitation should be vested in one body which can be held accountable. Urgent discussions should commence so that the country does not lose focus on sanitation.

4.1.4. Water resource monitoring

Water resource monitoring is not being implemented in the districts.

The practical requirements for water resource monitoring in RWSSP are:

- Monitoring *source viability* e.g. water levels for boreholes and water flows for springs etc. This should be designed to confirm continuity of supplies to users.
- Water quality hazards. This is to ensure the water does not get contaminated.

The evaluation found that awareness of source monitoring and water source protection was lacking in the WUCs. Even the DWOs were unable to undertake and provide basic water source

monitoring records that could be useful to evaluate water quantity and quality in districts. For example, source rehabilitation and or abandonment by the users and even technical staff were rarely informed by data from routine source monitoring.

A clear water resource-monitoring framework that is usable by all stakeholders is needed in districts for efficient planning, decision-making and source operation and maintenance. This needs additional guidance or activities by WRMD.

4.1.5. Sanitation improvement strategy

"Creating awareness" and shaming though necessary, are not sufficient to increase the HH latrine coverage to 95% by 2020, as planned. 24% of HHs sampled had no private latrine, and of these only 6% did not consider it important; meaning that the main problem is not lack of knowledge.

In many DDPs promotion activities are pasted in every year, and implemented but with little tangible results. Moreover the present promotion activities are supposed to be carried out in only two sub counties per year per district;, which is counterproductive if other SC LLGs must await their turn (after some years) before doing sanitation promotion! Sanitation promotion should therefore be reinstated as a continuous activity in all subcounties.

WUC as a vehicle for sanitation improvement is not providing tangible results. When WUCs are started up, it is a pre-condition that before the water source is constructed the community should increase latrine coverage to a prescribed level. This could be ignored during implementation for pragmatic reasons, leading to minimal effect on the latrine coverage. And once the water point has been constructed, there is no continuing agreement regarding Latrine construction that can be enforced.

WUCs do not carry out the Hygiene promotion activities within community. They only concern themselves with the hygiene conditions of the water point. They may not therefore contribute substantially to the sanitation promotion effort.

There is therefore a need to review the sanitation improvement strategy as gains made in providing safe water could substantially be compromised by poor hygiene and sanitation.

4.1.6. The role of TSUs

The TSUs in their present form may no longer as relevant as they were at the commencement of the programme (2000).

The TSUs were introduced as an interim bridging gap measure to assist in capacity building of DLGs. Inputs from TSUs should only be required for a finite time. The centre however depends on the TSUs for quality assurance

. The assessment criteria for TSUs²⁸ clearly show that the TSU only acts in an advisory capacity to districts. It (TSU) does not have the mandate to initiate any action, enforce any directive, or reward/sanction any player.

This leads to a situation whereby: If a TSU performs well and develops the required capacity in the DLGs, then the TSU need no longer exist. If a TSU cannot develop the DLG capacities to the required extent, then it should never have been created.

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²⁸TSU evaluation criteria issued by DWD.

However, with the high staff turnover experienced in DLGs and the need to physically verify projects implemented by DLGs, it is inevitable to implement the RWSP without TSUs. However it is necessary to review the role of TSUs to the current service delivery bottlenecks within the program.

4.1.7. Equity

Equity in allocation of water points is not ensured in districts. The "budgeting process" in districts is in essence an allocation of IPF funds to competing interventions within the district, done under the district budget conference. Significant numbers of attendees at the budget conference are politicians who want to divert facilities to their constituencies. Selection of projects is not entirely and purely technical, as other (political) tradeoffs become necessary. Indeed the SPR 201629 confirms that politicians interfere with equity in distribution of water points. Equity has also been impacted by other factors such as non-functionality of some water points (O&M issues); sparse populations in some areas hence long distance between households and water points; low water potential in some areas therefore when boreholes are drilled, water is not easily found hence there is continuous shifting of drilling locations; and land ownership especially where water can only be found in a land belonging to a community member who is not willing to donate it to the community or demands high compensation. In a few instances community members are denied access to a water facility located in someone's land.

MWE monitors equity through an index – "Mean Sub-County deviation from the national average in persons per improved water point". Following the recent instructions to ensure there is at least one improved water source in every village in Uganda, there is need to develop a better indicator for equity up to village or HH level.

4.1.8. The role of HPMs and HPMAs

It was noted that in many districts, HPMs, HPMAs and other private sector players are neither facilitated by, nor well integrated into the sector at the LG level. Yet their reports and actions on technical issues are likely to be more useful than the occasional visits by the CDO to the source(s).

In practice the DWO depends on reports from non-technical people – CDOs and WUCs – who are unable to correctly diagnose let alone plan impending repairs. There is need to integrate the operations of the HPMAs into the planning of maintenance activities.

4.1.9. Poor technical support to HPMs

The evaluation observed very poor tooling of HPMs. More worrying was the lack of backup tools to the HPMs. Expensive tools (Jigs, fishing tools) that would not ordinarily be owned by HPMs, was not provided at the SC level. HPMs had to network long distances with other HPMs to be able to borrow tools e.g., At the time of survey, the HPMs of Kotido district were found hiring repair tools from Kaabong to do major repairs as they did not have the jigs.

More technical support needs to be provided to HPMs/HPMAs.

4.1.10. Water stressed districts

By comparing the RWS coverage maps of 2005 and 2016 it is quite clear that the cattle corridor districts stretching from Isingiro to Mubende; and the water scarce districts of Northeastern

²⁹ SPR 2016 pg. 27; section 4.3.4 para 2.

Uganda Napak to kotido) have remained with low access figures. In fact the northern districts, which are still recovering from war effects, have overtaken these districts.

Whereas the technology of choice within MWE is the deep boreholes, surface water storage (dams/tanks) have also been implemented in these areas but these have not resulted in dramatic improvements in access figures.

These areas need a different mix of technologies; and if necessary increased per capita investment as compared to non-water stressed and non-water scarce districts.

MWE has embarked on large schemes, but will require a special dispensation to address these water stressed districts.

4.1.11. Review of RWSSP database and decision support system

The outputs of the RWSSP database and the DLG knowledge base have been shown to be inaccurate at times (section 3.8). The analysis of the data in particular should be trustworthy and machine-centric so that investment decisions (location of new sources, allocation of maintennace etc). are not high jacked by political interests. In particular MWE may consider

- A more accurate field data collection process including a technically accurate assessment of facilities, This would include on-the-spot performance testing processes to assess repairs..
- Review of procedures including proper definition and identification of needy populations, for example to allow auto-generation of unbiased investment preferences.
- A more realistic evaluation procedure of per capita costs at district level. This would allow a more instant equitable allocation within districts.

4.2. Lessons learnt

4.2.1. Where WUC collections are pooled, the sustainability is improved.

Most WUCs remain insular (and even opaque). Their sources of funding are limited to funds that have been accumulated or can be immediately mobilized from members. In such cases the occurrence of a major failure - needing larger sums of money - cannot be rectified immediately for lack of funds; hence delayed repairs.

Serere – Olio Sub-county has overcome this by pooling WUCs resources under the Olio Sub-county treasurer's association. Where repairs exceed the WUC savings in the association, they are able to borrow from the pool funds and repay in due course. WUCs operating from interventions by NGOs/CSOs had a better performance record. This lesson needs to be integrated into the project design and scaled up.

4.2.2. WSS spare parts supply is not lucrative business in itself

Regional spares stockists do exist, but it is not a serious and self-sustaining line of business. Stockists were only seen in major regional towns (Mbale, Arua, Lira), and even then, this was side business to the shops' main activity. This shows that a catchment needs to be sufficiently large to be attractive to the private sector.

A more proactive PPP approach is needed to support stockists to lowest LLG level possible (SC level). With a growing hardware industry in most parts of the country, this PPP proactive approach should be feasible and with tangible results.

The system would allow the LLG to provide guarantees to stockists/HPMs/HPMA for specific universal and fast moving spares which can be consumed by the LLG or subsidized WSCs identified in their budget.

Briefly the PPP advantages are:

- For the supplier/repairer there is a guaranteed market, and reduced losses,
- For LLG there is sufficient window period to process any payments or canvassing WSCs if required to pay up, and
- For users there is a chance for quick repairs in case of failure.

The biggest risk to the proposal would happen if predicted repairs or demand are wrongly assessed.

4.2.3. Where parents contribute funds for WSS, schools are able to maintain facilities spick & span

In most schools visited, there were no functional water sources. There were no contributions from parents to maintain the water sources.

However in Zambia PS of Kamdini S/C in Oyam district, parents were required to contribute UGX 1,000 per child per term for maintenance of W& S facilities. The school W&S facilities were well maintained.

4.2.4. Where lower actors are not involved in certification, contractors can get away with non-satisfactory sources.

There were some cases of facilities constructed that were not functional at the time the contractor left the site. The contractor would be paid without the knowledge of the Subcounty and the WUC, leaving the community with a non-functional source.

4.3. Recommendations

4.3.1. Policy recommendations

Review budgetary allocation to cater for hard to reach/disadvantaged districts

The budgetary allocation between districts does not compensate for disadvantaged or hard to serve areas. Areas that are water stressed and/or where access is already too low should be allocated more if the access figures are to improve.

Review the allocation of funds between new sources, rehabilitation and software.

The formula for expenditure of the DWSCG within the district – 80% for new sources, 15% for maintenance and 5% for software – is unrealistic. In terms of the district, maintenance is usually translated to mean rehabilitation of boreholes, which is a high cost activity (especially when corroded pipes have to be replaced). This formula should be revised to allow more BHs to be rehabilitated, even at the expense of a few new water points particularly for districts with water coverage above the national average.

Enact guidelines for enforcement of sanitation

The "awareness creation" and shaming strategy for sanitation is not working. Enforcement/sanctions should be included in the mix of strategies.

Change the CBMS to change from reactive to proactive preventive approach in the management of water facilities.

Most of the WUCs were operating in the reactive mode pulling efforts and resources when the facility was down. This arrangement needs to be change completely so that WUCs capacities are built around the concepts of regular maintenance and preventive repair. The local artisans/technicians should be a technical supportive role in this arrangement; and this role should be part of the routine project monitoring activities.

Monitoring of facilities

The sub-county CDOs are tasked with monitoring of facilities for functionality (both facilities and committees) and quality. CDOs are generally facilitated with motorcycles. The common excuse for not visiting facilities was lack of facilitation/fuel.

It is recommended that HPMs and HPMAs can be engaged in technical monitoring of facilities (on a contract routine basis) for better technical monitoring and reporting, with minimal expenditure to districts.

Affordability of water services

Perception of non-affordability – both water and sanitation facilities – are common within communities. The programme has devised strategies to ensure that the services are cheap enough for rural folk - usually of the order of UGX 500 per month for water services, and yet there is still nonpayment of these dues.

Many farming communities get a disposable at harvest time, when they can afford to invest in the facilities. To dispel this notion, it is recommended that farming communities should pay a one-off payment at harvest time, and possibly in kind. This will require to also strengthen the capacities of WUCs and CDOs for community mobilization and accountability.

4.3.2. Programming recommendations

Introduce regular self-evaluation and independent external expert evaluations for districts There is no functional evaluation of the so many projects implemented under the DWSCG. Project completion reports and case studies in districts - that could be used to inform stakeholders - are either not produced or not disseminated.

The MWE should introduce these evaluations to inform future project implementations and

Simplify contract awards and supervision

Delays in award of contracts are a major impediment to implementation of projects. There were continued references to conflicts of interest by district officials mainly over money. Where contracts are so simple and basic (e.g. awareness creation, latrine construction etc.), there may exist a pool of capable service providers. In this case the MWE/district can fix a price and

- Instead compare bids according to provider's add-ons; time schedules or other delivery guarantees, or
- Award rotationally among pre-qualified providers.

Furthermore MWE can fix a time limit for such a contract award, which funds may be withdrawn if not effected within the specified time frame.

Devolve certification of contract payments

There were also reported contractors who had received payments, though the facilities they had constructed could not be used for the purpose they were constructed for. In this case the beneficiary community needed to certify that the project was successfully implemented and is serving them.

A form of success fee contract³⁰ or provision can be adopted to ensure contractors do not get paid even after they have failed to successfully execute a project.

³⁰PPDA 2003, clause 88K.