THE REPUBLIC OF UGANDA

Semi-Annual Budget Monitoring Report

Financial Year 2014/15

Water and Environment Sector

April 2015

Ministry of Finance, Planning and Economic Development
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ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
BMT	Borehole Maintenance Technician
BPTs	Break Pressure Tanks
BoQs	Bills of Quantities
CBO	Community Based Organization
C.C.C.C	Community Contribution towards Capital Cost
LCs	Local Councils
CLTS	Community Led Total Sanitation
DHSCG	District Hygiene and Sanitation Conditional Grant
DLGs	District Local Governments
DLP	Defects Liability Period
DSCs	District Service Commissions
DWO	District Water Office/Officer
DWSCC	District Water and Sanitation Coordination Committee
DWSDCG	District Water and Sanitation Development Conditional Grant
EU	European Union
FY	Financial Year
GFS	Gravity Flow Scheme/System
GIZ	The *German* Federal Enterprise for International Cooperation
GoU	Government of Uganda
HIC	Health Improvement Campaign
HPMA	Hand Pump Mechanics Association
IPCs	Interim Payment Certificates
IFMS	Integrated Financial Management System
ISH	Improved Sanitation and Hygiene
VHTs	Village Health Teams
KCCA	Kampala Capital City Authority
KfW	KfW Bankengruppe (German Development Bank)
KSMP	Kalagala Sustainable Management Plan
LGs	Local Governments
LVWATSAN	Lake Victoria Water and Sanitation

MAAIF	Ministry of Agriculture Animal Industry and Fisheries
M&E	Monitoring and Evaluation
MFPED	Ministry of Finance Planning and Economic Development
MDG	Millennium Development Goal
MoES	Ministry of Education
MoH	Ministry of Health
MoLG	Ministry of Local Government
MoU	Memorandum of Understanding
MoWLE	Ministry of Water Lands and Environment
MPS	Ministerial Policy Statement
MWE	Ministry of Water and Environment
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NRB	Natural Resource Base
NRM	Natural Resources Management
NWSC	National Water and Sewerage Corporation
O&M	Operation and Maintenance
RGCs	Rural Growth Centers
RWSS	Rural Water Supply and Sanitation
STRW	Support to Rural Water
TC	Town Council
TSUs	Technical Support Units
PAF	Poverty Action Fund
PIP	Public Investment Plan
PPSS	Policy, Planning and Support Services
PRDP	Peace Recovery and Development Plan
Q1	Quarter 1
Q2	Quarter 2
Q3	Quarter 3
Q4	Quarter 4
S/C	Sub-county
STs	Small Towns
UBOS	Uganda Bureau of Statistics

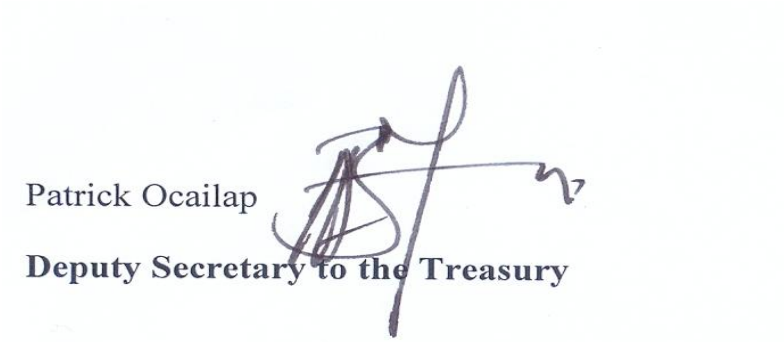
Ug shs	Uganda Shillings
UNRA	Uganda National Roads Authority
UWSS	Urban Water Supply and Sanitatio
VAT	Value Added Tax
VF	Vote Function
VIP	Ventilated Improved Pit latrine
VT	Valley Tank
WAs	Water Authorities
WES	Water and Environment Sector
WUCs	Water User Committees
WCCC	Weather, Climate and Climatic Change
WfP	Water for Production
WRM	Water Resources Management
WSDFs	Water and Sanitation Development Facilities
WSDF-C	Water and Sanitation Development Facility-Central
WSDF-SW	Water and Sanitation Development Facility-South West
WSDF-N	Water and Sanitation Development Facility-North
WSDF-E	Water and Sanitation Development Facility-East

FOREWORD

The government has increasingly channeled resources into implementation of public programmes aimed at enhanced service delivery. Effective implementation of these programmes is critical and this calls for monitoring and evaluation.

The Budget Monitoring and Accountability Unit in the Ministry of Finance, Planning and Economic Development makes semi-annual performance assessments on the progress of implementation for selected programmes. This report reviews the half year performance in the priority areas of: Agriculture, Education, Energy, Health, ICT, Industralization, Public Sector Management, Roads, and Water and Environment for FY 2014/15.

The findings therein should inform implementation decisions in the last half of the year. I urge all institutions to follow up on the related implementation issues that have been identified. The implementation challenges and recommendations made will guide the relevant sectors to ensure enhanced effectiveness of programme implementation.



Glossary

Coagulation in water treatment: Coagulation is the process of removing dirt and other particles suspended in water by adding a chemical such as potassium aluminum sulphate which attracts the dirt particles and they stick together.

Ecological Sanitation (Ecosan) toilet: A dry toilet that either mixes with little or no water at all. This is based on three fundamental principles: preventing pollution rather than attempting to control pollution; rendering the urine and feces safe for reuse; and using the safe products for agricultural purposes.

Electrolytic Disinfection Machine: An on-site system, that produces an inexpensive disinfectant from water, table salt and electricity called hypochlorous acid (HOCl), which has a very low chloride content.

Dosatron equipment: This is simple water dosing and dispensing ingenious system that uses the flow of water as the power source. The water activates the Dosatron, which takes up the required percentage of concentrate injecting into the water.

Flocculation in water treatment: This is the process of stirring water at a slow rate after coagulation, causing the individual dirt particles to "collide" with each other thereby sticking together to gain a weight, heavy enough to sink to the bottom.

uPVC pipes: uPVC (unplasticized polyvinylchloride) pipes often used in the following circumstances for drinking water pipe distribution systems, both main and supply lines; and in sewer and discharge pipe systems

On-farm: Development of primary distribution and tertiary networks for irrigation systems and infrastructure works, and water use management.

Hardpan: A dense layer of soil found below the topsoil layer.

HDPE pipes: High-Density Polyethylene pipes-plastic pipes

Bedrock: A solid rock underneath loose deposits such as soil

Hardware Activities: These are construction works for different technologies for instance; drilling borehole/Shallow wells, protection of springs, rehabilitation and promotion of domestic rainwater harvesting.

Multi/Basket Financing: A mechanism for pooling funds from various sources, typically governments, donors and the private sector to support priorities and ensure adequate resource allocation for agreed upon program areas.

Operation and Maintenance (O&M): Refers to all of the activities needed to run a water supply and sanitation scheme, except for the construction of new facilities. The overall aim of operation and maintenance is to ensure efficiency, effectiveness and sustainability of water supply and sanitation facilities

Water Scheme/System

Software Activities; these are support activities to enhance the operation and sustainability and of the water technologies. These include; pre construction, during and post construction support activities including: formation and training of water user committees, district/Sub-County inter-coordination advocacy meetings, drama shows about hand washing, and community led total sanitation activities.

Technical Support Units: Area based units that provide backup support to local governments through planning, design and implementation of new facilities and operation and maintenance.

Diameter Nominal of a pipe; The DN code is a code that rounds off the diameter of the pipe to get an even number to work with, not the exact diameter

EXECUTIVE SUMMARY

BACKGROUND

The overall report reviews selected key vote functions and programmes within the sectors, based on approved plans and significance of budget allocations to the votes. The focus is on nine sectors, including: agriculture, education, energy, health, industrialization, ICT, public sector management, roads; and water and environment. Attention is on large expenditure programmes with preference given to development expenditures, except in the cases of education, health, ICT, public sector management and roads where some recurrent costs are tracked.

Projects selected for monitoring were based on regional sampling, level of capital investment, planned quarterly output, and value of releases by the second quarter of FY 2014/15. The methodology adopted for monitoring included literature review of quarterly progress and performance reports; interviews with the respective responsible officers or representatives of programmes; and observations at site.

FINDINGS

i) Water and Environment Sector

The monitoring focused on the following projects: Rural Water Supply and Sanitation (RWSS), Urban Water Supply and Sanitation (UWSS), Water for Production (WfP), Water Resources Management (WRM), Natural Resources Management (NRM) and Local Governments- District Water and Sanitation Conditional Grant (DWSDCG).

Physical performance

The overall sector performance was rated as very good (70%).This was reflected in completed projects or those within the contract time period. The performance was threefold; mostly excellent, fair and for a few projects poor. Monitored projects in RWSS, UWSS, WRM and WfP had both excellent and fair performances while those under NRM and DWSDCG performed poorly. Most projects excelled under UWSS and WfP Vote Functions. A good number of projects performed fairly only a few underperformed. The major difference between excellent and fair performance was time lag otherwise on average, works were of good quality. The performance of DWSDCG and Kalagala was poor. Under the DWSDCG, 60% of the districts had not started construction works.

Excellent performance under the UWSS was demonstrated in the water supply systems like Purongo, Ibuje, Ochero, Kachumbala which were completed and functional; Rwenkobwa and Lyantonde were substantially complete and within the expected contract timelines. The projects remained with small percentage payments for liabilities apart from Purongo and Ibuje which fell short at 60% payment. Very good quality woks were realized in these schemes.

Under the RWSS, Lirima Gravity Flow Scheme (GFS) performed fairly. The quality of works was good though the project was behind the scheduled completion date. This was due to delays in land compensation experienced at the construction of Break Pressure Tanks.

The Kasikizi, Katiirwe and Nalubembe valley tanks (WfP) performance was excellent. The valley tanks were completed within the expected time, remaining with retentions for the defects liabilities. The quality of works was commendable.

Poor performance was exhibited in the DLGs with the DWSDCG. A good number of outputs in software were achieved but procurement for hardware works was still ongoing in 60% of the districts. Only four out of the ten local governments monitored had started hardware implementation.

Under the Kalagala project, the center (Directorate of Social Services) carried out five out of the ten planned outputs. Output implementation was lagging because of the poor financial flow within the project.

Overall Challenges

- Land compensation issues especially for big projects like gravity flow schemes delayed works.
- Introduction of VAT on water works after planning period made the cost of implementation rise higher than expected .
- Equal releases to local governments centrally to sector quarterly work plans affect the expenditure of the DWSDCG.
- Delayed procurement processes at the DLGs affected the pace of works.
- Heavy rains disrupted works.

Recommendations

- The MWE and local governments should plan and expedite land compensation early enough to minimize time loss.
- The MFPED should communicate new tax measures early enough so that they can be incorporated in planning.
- The MFPED should harmonize releases with quarterly work plans.
- The DLGs should adhere to procurement timelines.

CHAPTER 1: BACKGROUND

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is *"To formulate sound economic policies, maximize revenue mobilization, ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development"*. It is in this regard that the Ministry gradually enhanced resource mobilization efforts and stepped up funds disbursement to Ministries, Departments, Agencies and Local Governments in the past years to improve service delivery.

Although significant improvements have been registered in citizens' access to basic services, their quantity and quality remains unsatisfactory, particularly in the sectors of health, education, water and sanitation, agriculture and roads. The services being delivered are not commensurate to the resources that have been disbursed, signifying accountability and transparency problems in the user entities.

Although there are several institutions in the accountability sector mandated to monitor and audit public resources, they have not provided comprehensive information for removing key implementation bottlenecks to enhance transparency and accountability and consequently improve service delivery. It is against this background that the Budget Monitoring and Accountability Unit (BMAU) was established in FY 2008/09 in the Ministry of Finance, Planning and Economic Development, under the Budget Directorate, to address this challenge.

The BMAU is charged with tracking implementation of selected government programmes or projects and observing how values of different financial and physical indicators change over time against stated goals and targets. This is achieved through regular field monitoring exercises to verify receipt and application of funds by the user entities. Where applicable, beneficiaries are sampled to establish their level of satisfaction with the service.

The BMAU prepares semi-annual and annual monitoring reports of selected government programmes and projects. The monitoring is confined to levels of inputs, outputs and intermediate outcomes in the following areas:

- Agriculture
- Infrastructure (Energy and Roads)
- Industrialization
- Information and Communication Technologies
- Social services (Education, Health, and Water and Environment)
- Microfinance; and
- Public Sector Management

CHAPTER 2: METHODOLOGY

2.1 Process

This report is based on selected programmes from the sectors mentioned in chapter one apart from microfinance. The selection was based on a number of criteria;

- Programmes that submitted progress reports by the end of quarter two, FY 2014/15 were followed up for verification as they had specified output achievements.
- Priority expenditure areas in the budget strategy and ministerial policy statements for FY 2014/15 with focus being on large expenditure programmes.
- Regional representation to ensure that coverage of programmes is from varying parts of the country
- Programmes/projects with previously identified critical implementation problems.

2.2 Methodology

The key variables monitored were targets of inputs and outputs; implementation processes and achievement of intermediate outcomes and beneficiary satisfaction where feasible.

2.2.1 Data Collection

Data was collected through a combination of approaches;

- Review of secondary data sources including: Ministerial Policy Statements for FY 2014/15; National and Sector Budget Framework Papers; Sector project documents and performance reports in the Output Budgeting Tool (OBT), MFPED Budget Documents, Budget Speech, District Performance Reports; Q1 and Q2 Sector Quarterly Progress Reports, Work plans, and Public Investment Plans.
- Review and analysis of data in the Integrated Financial Management System (IFMS) and legacy system; progress reports (Performance Form A and B) and bank statements from implementing agencies.
- Consultations and key informant interviews with project managers in implementing agencies both at the Central and Local Government level.
- Field visits to project areas involving observations and discussions with beneficiaries. Photography was a key data collection tool during the monitoring exercise. In some cases call-backs were done to triangulate information.

2.2.2 Sampling

The projects/programmes monitored were purposively selected from information provided in the FY 2014/15 Ministerial Policy Statement and Quarterly Performance Reports for Q1 and Q2. Priority was given to outputs that were physically verifiable especially those categorized under GoU development expenditure.

Districts in different regions were selected so that as many regions of Uganda as possible are sampled throughout the year. Emphasis was also placed on programmes not monitored in previous quarters. For completed projects, monitoring focused on utilization, quality and beneficiary satisfaction.

2.2.3 Data Analysis

This was mainly simple descriptive statistics of comparing set targets and observed levels of achievement. Physical performance of projects and outputs was assessed through comparing a range of indicators and linking the progress to reported expenditure. The actual physical achievement was determined basing on (weighted) number of activities accomplished for a given output.

2.3 Limitations of the report

- Overstated absorption of some projects due to transfers to subventions being reflected as payments on the Integrated Financial Management System (IFMS).
- Assumption that warrants on IFMS are equal to the release. This also provides misleading information on financial performance.
- Difficulty in ascertaining financial performance of some donor projects due to unavailability of information from project managers. It was also equally difficult to ascertain financial performance of projects off the IFMS.
- Lack of clear indicators, in some programmes, hence difficulty in rating overall performance.
- Unavailability of some critical information. For example, a number of project recipients had limited information on scope of civil works, costs and contract period.
- Sampling of some projects/programmes was affected by misleading information from ministries. Some projects that were reported as implemented in FY 2014/15 had been done in FY 2013/14.

2.4 Assessment Criteria

For purposes of this report, the guide below is used to assess and rate performance.

Physical and financial performance was rated in percentages according to achievement of the planned set targets and the overall utilization of funds for multi-year projects. Table 2.1 shows the assessment criteria for measuring the achieved targets and expenditures.

Table 2.1: Assessment criteria for measuring achieved targets

SCORE	***COMMENT***
80% and above	*Excellent (All set targets achieved and funds well utilized)*
70% - 79%	*Very good (Most of the set targets achieved and funds absorption is 70% and above)*
60% - 69%	*Good (Some core set targets achieved and funds absorbed to 60%)*
50% - 59%	*Fair (Few targets achieved and funds absorption is average-50%)*
Less than 50%	*Below average (No targets achieved and funds absorption is less than 50%)*

Source: BMAU

CHAPTER 13: WATER AND ENVIRONMENT

13.1 Introduction

The Water and Environment Sector consists of Vote 019- Ministry of Water and Environment (MWE); Vote 0150 – National Environment Management Authority (NEMA); Vote 0157- National Forestry Authority (NFA); Votes 501-850 Conditional Grants to Local Governments and Vote 0122- Conditional Grant to Kampala Capital City Authority.

The mission of the sector is *'To promote and ensure the rational and sustainable utilisation, development and effective management of water and environment resources for socio-economic development of the country"*[1]The ministry is guided by the following strategic objectives in the implementation of government policies and programmes;

i) To provide safe water within easy reach and hygienic sanitation facilities based on management responsibility and ownership by users to 77% of the population in rural areas and 100% in urban population by the year 2015 with 80%-90% effective use and functionality of the facilities.

ii) To provide viable urban Water Supply and Sewerage/Sanitation systems for domestic, industrial and commercial uses.

iii) To develop water supply for production/multipurpose use for socio-economic development, modernize agriculture and mitigate the effects of climate change.

iv) To manage the water resources of Uganda in a wise, integrated, sustainable and coordinated manner so as to secure water of adequate quantity and quality to meet all social and economic needs of present and future generations.

v) To promote a sustainable and productive Natural Resource Base (NRB) and a healthy environment for improved livelihoods, poverty eradication and economic growth.

vi) To develop capacity and promote sustainable harness and use of climate and weather resources for socio-economic development of Uganda.

vii) To coordinate and ensure compliance with Government policy, legislation, standards and regulation in the Water and Environment sector agencies and institutions.

Water and Environment Sector Financing (in billion Ug shs)

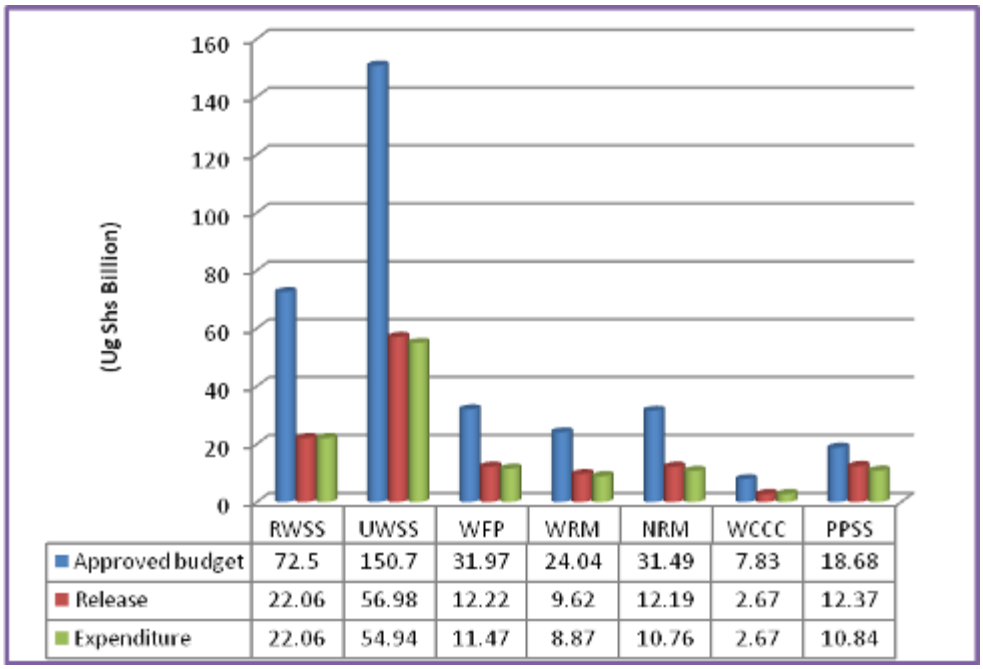
The approved budget for the sector for FY 2014/15 is 444.663; Vote 019- Ministry of Water and Environment budget it is Ug shs 337.21; Local Governments (Votes 501-612) were allocated Ug shs 60.37, 0150-National Environment Management Authority Ug shs 9.013; 0157-National Forestry Authority Ug shs 20.825; 501-612 Conditional Grants to LGs Ug shs

[1] MPS FY 2014/15

67.729 and 0122- Conditional Grant to KCCA Ug shs 6.353. The midyear monitoring focused on Vote 019 and Votes 501-612.

Vote 019 approved budget is 337.21, of which Ug shs 128.12 (38%) was released and 121.60 (94%) spent by the end of December which was an excellent release and expenditure performance. Figure 13.1 shows Vote 19 Vote Functions' (Rural Water Supply and Sanitation (RWSS), Urban Water Supply and Sanitation (UWSS), Water for Production (WfP), Water Resources Management (WRM), Natural Resources Management (NRM), Weather, Climate and Climatic Change (WCCC); and Policy, Planning and Support Services (PPSS) budgets and expenditures by end of December 2014. Other Vote releases and expenditures were not easily available.

Figure 13.1: Vote 19 Function Budgets, Releases and Expenditures (Excluding taxes and earliers)



	RWSS	UWSS	WFP	WRM	NRM	WCCC	PPSS
Approved budget	72.5	150.7	31.97	24.04	31.49	7.83	18.68
Release	22.06	56.98	12.22	9.62	12.19	2.67	12.37
Expenditure	22.06	54.94	11.47	8.87	10.76	2.67	10.84

Source: MWE Q2 report FY 2014/15

14.1.2 Scope

This report highlights the midyear financial and physical performance of selected projects in the Water and Environment Sector (WES). The projects were selected from Vote 19 and Votes 501- 612. The monitoring work focused on five out of the seven Vote Functions in the sector namely: i) VF 0901 (RWSS), ii) VF 0902 (UWSS), iii) VF 0903 (WfP), iv) VF 0904 (WRM), v) VF 0905 (NRM). These projects are located in 18 District Local Governments (DLGs).

For Votes 501-612: Local Governments - District Water and Sanitation Development Conditional Grant (DWSDCG). Ten districts were monitored namely: Agago, Apac, Iganga, Kyenjojo, Mubende, Ngora, Nwoya, Oyam, Pader and Serere.

The monitoring covered projects implemented by both central and local governments (Table 13.1). These included piped water supply systems, point water sources and Valley Tanks (VTs).

Table 13.1: WES projects monitored

Vote/Vote Function	Project / Output	Location (District)
Vote 019		
VF 0901: Rural Water Supply and Sanitation	Project 0163: Support to Rural Water Supply Construction of Lirima Gravity Flow Scheme (GFS)	Manafwa
VF 0902: Urban Water Supply and Sanitation	Project 1074: WSDF-N Construction of Patongo, Purongo, Ibuje and Opit water supply and sanitation systems.	Agago, Nwoya, Apac, Gulu
	Project 1283: WSDF-SW Construction of Rwenkobwa, Kinoni and Lyantonde II water supply systems.	Ibanda, Kiruhura, Lyantonde
	Project 1130: WSDF-C Construction of Kakumiro water supply system	Kibale
	Project 1075: WSDF-E Construction of Matany, Ochero and Kachumbala piped water supply systems.	Napak, Kaberamaido, Bukedea
VF 0903: Water for Production	Project 0169: Water for Production Construction of Nyakiharo GFS Construction of Katiirwe, Kasikizi and Nalubembe valley tanks.	Kabale, Kyegegwa, Kibuku
VF 0904: Water Resources Management	Project 0165: Support to Water Resources Management Construction of Jinja Pier Hydrological Monitoring Station	Jinja
VF 0905: Natural Resources Management	Project 0146: National Wetland Project Phase III Kalagala Sustainable Management Plan (KSMP)	Mbarara, Kayunga
Votes 501-612 Local Governments	Project 0156: Rural Water District Water and Sanitation Development Conditional Grant (DWSDCG)	Iganga, Serere, Ngora, Mubende, Kyenjojo, Apac, Oyam, Pader, Agago, Nwoya

Source: Authors' Compilation

Vote Function 0901: Rural Water Supply and Sanitation (RWSS)

Background

The RWSS sub-sector coordinates the provision of safe water supply and sanitation facilities to the people living in rural areas in two ways:

i) Central government support: Programmes implemented directly from the centre which include: i) Coordinating the use of District Water Sanitation Districts Conditional Grant (DWSDCG) and Peace Recovery and Development Plan (PRDP) including resource mobilization and allocation, setting standards, technical support, and monitoring compliance, ii) Promoting appropriate technology through action research, development and up-scaling, iii) Planning and developing water schemes that traverse local government boundaries including large gravity flow schemes and large motorized piped water schemes, iv) Strengthening improved sanitation hygiene service delivery in the DLGs and v) quality assurance of water supply designs developed by DLGs.

ii) Local Government support: The DLGs are responsible for utilization of the DWSDCG and PRDP grants - based on work plans and budgets approved by the MWE.

Findings

Financial performance

The RWSS VF approved budget for the FY 2014/15 is Ug shs 72.50 billion of which 22.06 billion (30.43%) was released, and all was spent. The half year release performance was good while absorption capacity was excellent.

13.2 Project 0163: Support to Rural Water Supply

Background

The project started on 1st February 2002 with the objective *"To support the Local Governments, Non-Government Organisations (NGOs), Humanitarian Organisations and Community Based Organisations (CBOs) to build capacity for efficient and effective service delivery in the water and sanitation sub-sector."*[2]

The responsibility for provision of rural water supply and sanitation services was decentralized to Local Governments (LGs). However, implementation of water supply services for Rural Growth Centers (RGCs) with the population between 1500-5000 is handled at the central level as the capacity of District Local Governments (DLGs) is being built.

The project is funded by the Government of Uganda (GoU) and Donors (Sida, DANIDA, DFID) under the Joint (Multi/Basket Financing). The project completion date is 1st February, 2017.

[2] PIP FY2014/15 – 2016/17

Key planned outputs for FY 2014/15

1. Hand Pump Mechanics Association (HPMA) framework disseminated.
2. Support supervision provided for Bududa-Nabweya, Ongino, Luanda, Bukwo and Lirima GFS.
3. Hygiene and sanitation promoted in Bududa-Nabweya, Ongino, Luanda, Bukwo and Lirima GFS.
4. LGs and Technical Support Units (TSUs) provided with technical support.
5. Construction of Kanyampanga GFS continued.
6. Construction of Bududa-Nabweya and Lirima GFS 80% completed, Bukwo GFS 30% completed.
7. Production wells constructed in selected areas in response to emergencies.

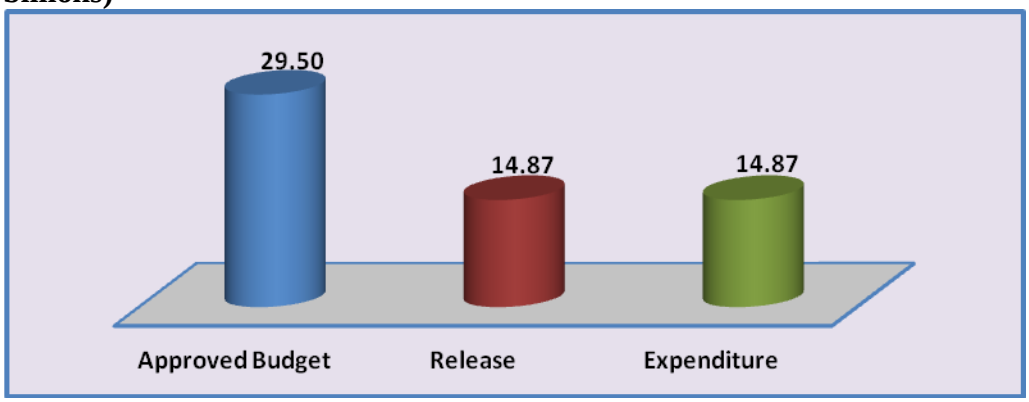
Under this project, the mid-year monitoring focused on the output of: Construction of Lirima GFS 80% completed.

Findings

Financial Performance

The financial performance of the Support to Rural Water Supply project is presented in Figure 13.2. The release (50.4%) and expenditure (100%) performances were excellent by half year.

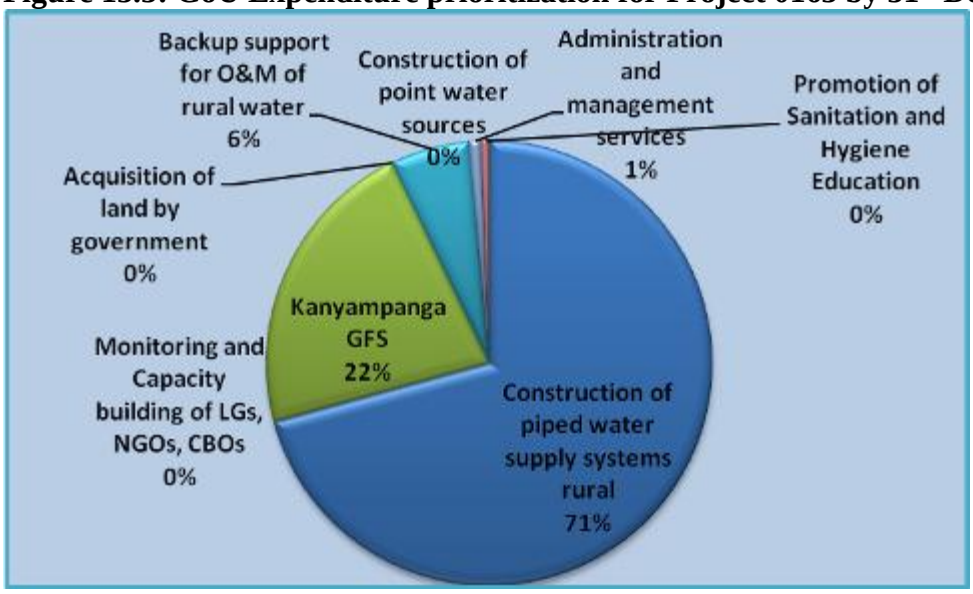
Figure 13.2: Financial performance of project 163 by 31st December 2014 (Ug shs billions)



Source: MWE Q2 progress report

Figure 13.3 shows that 93% of the released funds were spent on development works and 6% on back up support for Operation and Maintenance (O&M) of rural water supply systems which indicated an excellent expenditure prioritization.

Figure 13.3: GoU Expenditure prioritization for Project 0163 by 31st December 2014



Source: IFMS

Physical Performance

a) Construction of Lirima GFS

Lirima GFS was conceived by Mbale district in 2005 as a contribution to the goal of increasing safe water coverage. However, with the creation of Manafwa district from Mbale district, the scheme was largely located in the new DLG. The scheme shall cover five sub-counties in Manafwa district (Sibanga, Bugobero, Bwagogo, Butiru and Bubutu); two in Mbale district (Busiu and Bukiende) and two in Tororo district (Molo and Merikit). It is projected to serve 90,370 persons at completion and 173,360 persons by 2033.

In 2010 MWE assumed responsibility to develop the scheme in phases due to its extensive nature. Currently, the scheme is in Phase I of implementation to serve Bubutu and Butiru sub-counties. The contract for Phase I was awarded to M/s Vambeco Enterprises Ltd at a contract sum of Ug shs 12,966,047,325 (VAT excl.), being supervised by M/s Alliance Consultants Ltd in association with Infra-Consult Ltd. The civil works commenced on 20th May 2013 and scheduled for completion on 20th May 2015. Funding is jointly contributed by GoU and African Development Bank (AfDB).

The major components of works are: Intake/source development; supply, laying and backfilling of the raw water main, transmission mains with five Break Pressure Tanks (BPTs), and distribution mains; water treatment plant, office block, storage tanks and consumer connections.

Financial performance

The GoU and donor contributions are 29.25% and 70.75% of the contract sum, respectively. By 28th January 2015, seven Interim Payment Certificates (IPCs) totaling Ug shs 8,681,986,000 (66.96%) of the contract sum had been paid out to the contractor (Table 13.3). The anticipated financial variations were under negotiations.

Table 13.3: Financial performance of Lirima GFS by 31st December 2015 (Ug shs)

Contract sum: 12,966,047,325		
Payment type	**Amounts certified & paid**	**Date of payment**
Advance payment	2,534,862,252	27th August, 2013
IPC # 1 (rev)	1,517,136,470	27th November 2013
IPC # 2	605,470,092	12th December, 2013
IPC # 3	511,207,280	20th March, 2014
IPC # 4	1,039,366,986	13th May, 2014
IPC # 5	408,566,515	30th June, 2014
IPC # 6	1,502,769,295	15th September , 2014
IPC # 7	562,607,112	17th November, 2014
Total Amount Paid	**8,681,986,002**	

Source: Consultants' monthly progress report No. 19

Physical performance

The overall physical performance of Lirima GFS by 28th January 2015 was estimated at 66% as presented in Table 13.4. The contract time elapsed was 83%, hence the physical progress was lagging by 17%.

Table 13.4: Physical performance of Lirima GFS by 28th January 2015

Planned output	Status / Field findings	Remarks
Intake works Source protection, construction of the retention weir, intake chamber and an access road to the intake, fencing, and installation of gabion protection.	Finished works were: source protection, construction of retention weir, intake chamber, and access road, and installation of gabion protection. Installation of chain link fence was ongoing. Installation of the gate was pending.	The quality of work at the intake was very good.

Planned output	Status / Field findings	Remarks
Raw water main Supply, lay and backfill 1.9km of OD 200 uPVC pipeline and DN200 steel pipes for sections running above ground.	93% of the raw water main was laid and backfilled. Pending works were: laying and backfilling 135m of pipeline, and pressure testing.	Completion of the 135m section was awaiting crops compensation.
Treatment plant Construction of a 6,300m^3/d water treatment plant in Bukokho sub-county with the following components: Inlet chamber, coagulation and flocculation chambers, sedimentation tank, two rapid sand filters, treated water tank, attendants and superintendent's houses, chemical house including office and laboratory, backwash tank and backwash pump house.	Finished works were: The inlet chamber, coagulation and flocculation chambers, and sedimentation tank. Ongoing works were: construction of the rapid sand filters at blinding level; treated water tank at floor slab level; the attendants' house, superintendents' house, and chemical house at superstructure/walling level; the backwash tank at foundation level.	The quality of works and construction materials were good.
Transmission mains Supply, laying and backfilling 19.6km of OD250-OD90 uPVC treated water mains	99% laying and backfilling pipeline and 60% pressure testing were finished. Installation of river crossings and 40% pressure testing were pending.	Completion of the remaining section was awaiting compensation of the community to facilitate transfer of graves along the pipeline route.
Distribution mains Supply, lay and backfill 17.9km of pipeline in OD50-OD90 HDPE and 7.4km secondary distribution in OD110 uPVC pipes.	38.73% (9.8km) of the primary distribution mains was laid and backfilled. Supply, laying and backfilling 61.27% primary distribution main was pending.	The pending section was awaiting supply of HDPE pipes.
Break Pressure Tanks (BPTs) Construction and fencing off of five 10m^3 BPTs (BPT 1, BPT 2, BPT 3, BPT 4 and BPT 5).	BPT 4 and BPT 5 were finished. BPT 1, 2 and 3, and Leakage testing of all BPTs were pending.	The quality of work was good. Works on the three BPTs had lagged as a result of delayed land acquisition processes.

Planned output	Status / Field findings	Remarks
Reservoir tanks Construction of reinforced concrete ground level tanks of $55m^3$ in Mufutu and $230m^3$ in Butiru. Fencing and landscaping the tank areas.	Construction of $55m^3$ reservoir in Mufutu including fencing and $230m^3$ reservoir in Butiru were finished. Pending works were: leakage testing for the two tanks and fencing of Butiru reservoir which was prevented by the landowner requesting land compensation.	The quality of works was good.
Water office Construction of a water office block with inbuilt water borne toilet, an ecosan toilet, and guard house; supply of office furniture; fencing and landscaping.	Construction of the water office, the guard house, the ecosan toilet and fencing were complete. Supply of office furniture was pending.	Several cracks were observed on the office floor, verandah, and on top of the septic tank which if ignored could cause structural damage. Poor quality timber was used to construct the kitchen worktops and cabin.
Overall physical performance: 66%	The overall physical progress of works was behind schedule.	
Overall contract time elapsed: 83%		

Source: Consultants' monthly progress report No. 19 and Field findings


Left: Completed retention weir in Bupoto sub-county; Right: Inlet chamber, alum dosing unit, coagulation and flocculation chambers, and sedimentation tank in Bukokho sub-county


Left: 10m^3 BPT 4 in Magale sub-county; Right: 230m^3 reservoir tank in Butiru sub-county

Work variations: There were additional works which included: extension of distribution mains to Kisekene P/S, Bunkoko sub-county and Bumbo sub-county and installation of gabions at the intake.

Implementation challenge

- Delays caused by heavy rains and late compensation of land owners at BPTs 1, 2 and 3.

Recommendation

- The MWE should compensate land owners promptly.

Analysis

Link between financial performance and physical performance

Lirima GFS exhibited a good link between financial and physical performance. By 28th January 2015, financial performance of the scheme was 66.96% while the physical performance was 66%.

Achievement of set targets

Some major components of works had been achieved by 28th January 2015, though the overall implementation was slightly behind schedule compared to the remaining contract time. Lirima GFS was designed to be implemented in a period of 24 months (from 20th May 2013 to 20th May 2015). Much as at least 83% of physical works should have been completed by the time of monitoring, actual findings indicated physical progress of 66%.

Conclusion

The major components of work at the intake, treatment plant, water office, reservoir tanks and two BPTs were complete. However, the construction works were delayed by land and crop

compensation, and heavy rains which led to a 17% lag in physical progress. The quality of work was generally good except at the water office where minor cracks were observed on the walls, floor and on top of the septic tank. The contractor had been instructed to rectify these defects.

Recommendation

- The MWE should expedite payments for all pending land compensations to allow smooth progress of works.

13.3 District Water and Sanitation Development Conditional Grant (DWSDCG)

Background

The grant (DWSDCG) is channeled to local governments from the Ministry of Finance Planning and Economic Development (MFPED) to implement and provide effective coordination of water sector activities in their jurisdictions. The DLGs provide work plans and quarterly progress reports to the MFPED and copy to MWE. The DWSDCG planning guidelines require local governments to plan software activities up to 8%, office operations 6%, new water supply systems for not less than 70%, rehabilitation 13% and sanitation hardware at 3% of the total grant allocation in the FY.

During the mid-year monitoring, 10 districts were sampled including Agago, Apac, Iganga, Kyenjojo, Mubende, Ngora, Nwoya, Oyam, Pader and Serere to assess progress in implementation of the DWSDCG. The findings are presented below.

Findings

Financial Performance

The DWSDCG approved budget for the 10 District Local Governments (DLGs) in FY 2014/15 is Ug shs 6,064,669,791 of which Ug shs 2,793,828,266 (46%) was released by 31st December 2014. This was an excellent mid-year release. The average expenditure of these districts was 26.6% which was poor resource absorption.

There were general delays in releases as districts received funds for both Q1 and Q2 more than a month into the quarters which affected utilization of funds. Districts reported a two weeks maximum time lag between the release of funds from the general account and to department accounts. The introduction of Value Added Tax (VAT) led to districts forfeiting some activities and increased cost of implementation.

The districts of Agago, Apac, Nwoya, and Serere had unspent balances from the previous FY 2013/14. The reason given was commitments already made to pay for works and retention of completed facilities. Table 13.5 shows the financial performance of the monitored districts by 31st December 2014.

Table 13.5: Financial performance of DWSDCG in selected districts by 31st December 2015

District	Approved budget (Ug shs)	Releases (Ug shs)	% Release	Total expenditure (Ug shs)	% expenditure	Remark
Agago	597,831,00	304,666,000	51%	51,547,683	17%	In addition, Ug shs 117,970,333brought forward for retention and uncompleted works
Apac	663,140,00	386,376,000	58.3%	103,076,045	26.7%	Ug shs 79,096,000 was carried forward from FY 2013/14
Iganga	674,703,00	337,351,500	50%	82,769,563	25%	Works were still under procurement
Kyenjojo	536,500,07	267,749,780	50%	52,244,345	19.5%	Major works had started but not completed which affected payments
Mubende	674,530,00	337,266,000	50%	190,578,000	56.5%	Major payments were made for retention works
Ngora	450,175,81	225,088,986	50%	36,014,065	16%	Procurement was still ongoing for hardware.
Nwoya	312,688,00	156,344,000	50%	57,978,048	17.5%	Ug shs 101,160,832 carried forward from FY 2013/14
Oyam	748,139,00	76,070,000	50.2%	63,620,000	8.5%	Late release of funds in Q1 affected works
Pader	727,736,89	363,302,000	50%	62,834,848	17%	There was a problem in processing money which delayed works
Serere	679,226,00	339,614,000	50%	236,575,565	34%	Ug shs 48 million was committed funds for FY 2013/14.

Source: District Q1 and Q2 progress reports and field findings

Physical performance

The districts were at different levels of project implementation by February 2014. Tables 14.6 – 14.15 detail performance per district based on selected output categories against the mid-year / annual outputs and set targets.

Agago district

The district safe water coverage was at 68%, sanitation 43% and functionality 64% which are below the national levels according to the Sector Performance Report (October 2014). Software implementation was planned at 8%, office operations 6%, water supply 70%, rehabilitation 9% and sanitation hardware 3% of the grant. More resources were put in construction of new water facilities thus reducing rehabilitation percentage plans. Table 13.6 shows the DWSDCG physical progress.

Table 13.6: Physical performance of Agago DWSDCG by January 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
District Water and Sanitation Coordination Committee (DWSCC) meetings held	2	1	Only one coordination meeting held (50% achieved) as money was saved for Value Added Tax (VAT) which had not been budgeted.
Extension staff quarterly review meeting held	4	1	The activity was 25% achieved as per the midyear target.
Planning and advocacy meetings held	2	1	One advocacy meeting held at sub-county and the district one forfeited due to extra VAT costs.
Water User Committees (WUCs) trained	22	11	Training of WUCs was ongoing in February 2015.
Post construction support activities done	22	0	The activity was differed to Q3
Baseline survey conducted	22	22	The set targets were achieved.
One pit lined latrine constructed	1	0	Activity differed to Q3
Old sources monitored	19	0	There was 0% work done by 23rd February 2015.

Source: District Q2 report and field findings

The district planned protection of five shallow wells at Ug shs 30,950,000, drilling 17 boreholes at Ug shs 333,540,000 and rehabilitation of 11 boreholes at Ug shs 37,805,778. By February 2015, evaluation committee was yet to sign the evaluation report after which contract awards would be given. The planned latrine construction was differed to Q3 due to slow procurement.

Apac district

The district access to safe water was at 73%, functionality 72.8%, and sanitation 82%.The district planned according to planning guidelines for the DWSDCG where software was put at 8%, office operation 6%, water supply 70%, rehabilitation 13% while sanitation was 3%. By February 2015 the physical progress was as reflected in Table 13.7.

Table 13.7: Physical performance of Apac DWSDCG by January 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	2	1	Late release of funds at the end of quarter two thus 50% achievement.
Extension staff quarterly review meetings.	2	1	This was achieved as planned by midyear.
Planning and advocacy meetings at district and sub-county	1	1	100% achievement which is excellent performance.
Training WUCs	26	22	Same amount of money was spent on less number of committees.
Post construction support to WUCs	26	22	84% achievement due to less sources implemented
Baseline survey for sanitation	26	22	Due to VAT less sources were implemented
Construction of a five stance pit latrine in Abuli market.	1	0	The five stance latrine was awarded to Bidden Engineering co. Ltd but construction had not started.
Water quality testing (old sources)	22	0	Awaited rehabilitation of water sources which is given priority.

Source: District Q2 report and field findings

The district planned drilling of 22 boreholes at Ug shs 457,600,000. Contracts were awarded in December 2014 and the district was signing agreements with contractors in February 2015. These were awarded in three lots. Lot 1 was contracted to Antnae Engineering Works Ltd and Lot 2 was given to M/s Stan Tech Ltd. The construction of three shallow wells was awarded to M/s Ngai at a cost of Ug shs 29,000,000 while rehabilitation of 22 boreholes will cost Ug shs 93,368,000.

Iganga district

The safe water access stands at 64.5%, functionality 89.9% and sanitation 71.3%.The district planned for the grant as follows: software at 7%, office operations 6.4%, water supply 70%, rehabilitation 13% and sanitation hardware 2%. The office operations were affected by the contract salaries for the Borehole Maintenance Technician (BMT) and the Assistant Water Officer. Physical progress of the grant is shown in Table 13.8.

Table 13.8: Physical performance of Iganga DWSDCG by February 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	4	2	The activity met the half year target of 50%.
Extension staff quarterly review meeting.	4	2	This was an excellent achievement of 50% at midyear.
Planning and advocacy meetings	13	13	The activity was 100% accomplished which was an excellent performance.
Training WUCs	26	26	This output was 100% achieved.
Post construction support	146	116	Activity started late due to overlapping programs and delay in accessing funds requisitioned.
Baseline survey was conducted in six villages	26	26	The activity was 100% achieved.
Construction of a pit lined latrine with urinal in Bunyiro RGC	1	0	The activity will be done in Q3.
Planned water quality testing (old sources)	120	0	0% achieved due to delays in release of funds by the Procurement and Disposal Unit (PDU)

Source: District Q2 report and field findings

The district planned drilling of 19 boreholes at a cost of Ug shs 369,100,000. Drilling was ongoing at the time of monitoring. The number was reduced to 16 due to introduction of VAT that was not catered for in the original plan. Works were contracted in lots; Lot 1 was awarded to M/s MAA Technical Ltd and Lot 2 to M/s Geo Mapping Services Ltd. Each lot has eight boreholes. Rehabilitation of 6 boreholes was planned at Ug shs 19,767,500 but this was pending supply of spare parts hence rolled over to Q3.

L-R: Namungarwe borehole, Kawete village; Victory preparatory school borehole,

Busano village Namungarwe parish (Iganga district)

Siting of 12 shallow wells was done by M/s Agoro General Enterprises awaiting construction at a cost of Ug shs 91,027,370 by M/s Geo Drilling Solutions. There was planned procurement of 975 uPVC pipes of 6 inch for extension of piped system to Nakalama RGC at an initial cost of Ug shs 70 million. The unplanned VAT raised the budget to Ug shs 90 million. The National Water and Sewerage Corporation (NWSC) will do distribution and pipe laying at a total cost of Ug shs 687million according to the Memorandum of Understanding signed with the district.

Kyenjojo district

The safe water coverage was at 79 %, functionality at 81% and sanitation coverage at 86%. The district planned 8% of the grant for software activities, 9% for office operations, 70% for water supply, 10% rehabilitation and 3 % for sanitation hardware. The office operation was higher due to high costs of operation for the old vehicle repairs. The implementation progress was as shown in Table 13.9.

Table 13.9: Physical performance of Kyenjojo DWSDCG by February 2015

Planned output	Target	Achievement by February 2015	Remarks/Status

DWSCC meetings	4	2	This was 50% achieved which was an excellent performance at mid- year
Extension staff quarterly review meeting.	2	1	The 2nd review was postponed to Q3.
Planning and advocacy meetings at district and sub-county level	2	1	The 2nd advocacy was postponed to Q3.
Training of WUCs	36	0	All differed to Q3
Post construction support	7	12	The target was achieved and extra five WUCs trained.
A three stance VIP latrine with a urinal was planned at Kyakatwire market	1	0	The activity was planned for Q3.
Water Quality testing (old sources)	72	35	The other 37 sources will be done in Q3 (this will comprise of the new sources).

Source: District Q2 report and field findings

The planned drilling of 10 boreholes at Ug shs 242,905,980 was on going with two boreholes complete (Kyensere borehole in Butunduzi S/C and Kakikungu in Kihura S/C) remaining with pump testing and apron casting. Works were divided in 2 lots: Lot 1 to be done by Kahora Technical Services Ltd comprised of; i) Nyantonzi in Bufunjo S/C, ii) Kyensere in Bugaki S/C S/C, iii) Kirima in Lutiiti S/C, iv) Ngote in kyarusozi S/C, v) Mahungu in Nyaburwa S/C.

Lot 2 by M/s Kagu Construction Company Ltd; i) Kakikungu in Kihura S/C, ii) Kabwera in Butunduzi S/C, iii) Nyakatoma in Butunduzi S/C, iv) Kisengya in karale S/C and v) Rweitengya S/C.

L-R: Rehabilitated Karyinamwiru shallow well in Kyamunwa village, Kijweka Parish; Rehabilitated Katiganga shallow well in Busaiga village, Kyankaramata Parish (Kihura sub-county Kyenjojo district)

The construction of 20 shallow wells was contracted at Ug shs 4,381,500 in four Lots of five boreholes each. By February 2015 all the Lot 2 five shallows were complete by Kagu construction Ltd. These were; i) Kiduburi inn Katooke S/C, ii) Kakiza in Katooke S/C, iii) Nyakabungo in Bufunjo S/C, iv) Hapida in Katooke S/C, v) Kajubika in Katooke S/C. Works in Lots 1 and t 3 were ongoing.

Lot 1 was constructed to Kahora Tech. Service Ltd with the following shallow wells: i) Hakambugu in Bufunjo S/C, ii) Kisembo in Bufunjo S/C, iii) Nyakabungo in Bufunjo S/C, iv) Hapida in Katooke S/C and v) Kijubika in Katooke S/C. Lot 3 was contracted to Kiiti Multipurpose Ltd with shallow wells; i) Kasonja in Bugaki S/C, ii) Kyakarongo in Bugaki S/C, iii) Mukonomura in Butiiti, iv) Kamwiswa in Nyabuharwa S/C and v) Nyabubikokwa in Nyabuharwa S/C.

Lot 4 was contracted to Unitech Engineering Services Ltd with shallows: i) Kakabale in Butunduzi S/C, ii) Kyeganywa in Kigarare S/C, iii) Karwomusana in Kigarare S/C, iv) Kyarwamuzizi in Kihura S/C and v) Kabanyoro in Kihura S/C.

Rehabilitation of 7 boreholes at Ug shs 22,698,000 done by Kyenjojo HPMA was complete while the planned rehabilitation of 13 shallow wells at Ug shs 26, 403,000 was ongoing with some works complete and people already using water.

Mubende district

The district access to safe water is 43.8%, functionality 85% and sanitation 78%.Software activities were planned to take 7% of the DWSDCG; office operations 6%, water supply 73.2%, rehabilitation 11.5% and sanitation hardware 2.5%. Plans were affected by the construction of Bukuya water supply which takes a lot of money. Table 13.10 shows the DWSDCG implementation progress.

Table 13.10: Physical performance of Mubende DWSDCG by February 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	4	2	100% of midyear target achieved was 50%
Extension staff quarterly review meeting.	2	2	The planned target was accomplished by 31st December 2014.
Planning and advocacy meetings at district and sub-county level	1	1	The activity was on target (100% achieved)
Training WUCs	40	30	75% achievement.
Post construction support	50	0	Pending the completion of works.

A 5 stance VIP latrine was planned at Nabingora trading centre	1	0	Procurement was still ongoing at the time of monitoring in February 2015.
Water Quality testing (old sources)	50	40	The remaining 10 are for the new sources which were not yet constructed

Source: District Q2 report and field findings

L-R: Drilled borehole at Ntungamo village, Ntungamo parish Kabaringa sub-county; Rwemutongole village, Kawawa parish; 10,000m^3 valley tank in Manyogaseka (sub-county Mubende district)

Three planned boreholes had been drilled by Galaxy Agrotech Ltd at a cost of Ug shs 67,500,000 in. The aprons had been cast awaiting installation of the hand pumps. Planned construction of 15 shallow wells was ongoing in two lots at a cost of Ug shs 57,000,000 by Ayinebyona Investments Uganda Ltd. Borehole rehabilitation of 25 sources was at 75% completion level at a cost of Ug shs 77,500,000.

Construction of Bukuya Town Water Supply by was in the last phase at a contract of 600million with 118million planned in the FY 2014/15. The works in the FY included operationalization of transformer at the source and extensions to homesteads. Construction of two valley tanks of 10,000m^3 in Manyogaseka and Kiganda sub-counties were in completion stages at a total cost of Ug shs 78,000, 000.

Ngora district

The safe water coverage was at 63%, functionality at 90% and sanitation coverage at 90%. The district planned 63% of the DWSDCG for new sources, software activities 8%, rehabilitation 11%, office operations 13% and sanitation hardware 5%.The hardware was affected by removal of Ug shs 20 million to fence the water office. By February physical progress was as reflected in Table 13.11.

Table 13.11: Physical performance of Ngora DWSDCG by February 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	4	0	Target not achieved
Extension staff quarterly review meeting.	4	2	This was achieved as per the midyear target of (50%)
Planning and advocacy meetings at district and sub-county level	3	2	The remaining one shall be done inQ3.
Training WUCs	11	0	Target not achieved
Post construction support	5	5	100% achievement
A five stance VIP pit latrine with a urinal at Akisim Town Council (TC) was planned.	1	0	The activity was still under the procurement process
Water quality testing (old sources)	17	16	This was an excellent performance at 94% achievement.

Source: District Q2 report and field findings

Rehabilitation of 10 boreholes, drilling of 13 boreholes and construction of four shallow wells was under procurement. Fencing of the water office had commenced by February 2015.

Nwoya district

The district safe water coverage was at 62%, functionality 77% and sanitation 72.5%. For software, 7.34% was planned as part of the grant allocation; office operations 44.5%, water supply 36.05%, rehabilitation 11.6% and 0.51% sanitation hardware (retention payment as the this was constructed in FY 2013/14). The office operation was affected by the procurement of a vehicle which raised the cost thus the percentage planned. Table 13.12 shows physical progress at the time of monitoring.

Table 13.12: Physical performance of Nwoya DWSDCG by February 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	4	2	100% achieved as planned which was excellent
Extension staff quarterly review	4	0	The officer in charge had gotten an accident thus could not hold activity

meeting.			
Planning and advocacy meetings at district and sub-county level	2	2	All advocacies were achieved in Q1
Training WUCs	7	0	The activity had not been implemented by the time of monitoring
Post construction support	5	0	The activity was differed to Q3
	2	1	The activity was 50% achieved
Finishing construction of a 4 stance latrine at Agung RGC	0	0	Payments were only made for retention of one constructed FY 2013/14
Water quality testing (old sources)	12	3	Water quality monitoring was done in Koch Goma.

Source: District Q2 report and field findings

The district planned to construct four boreholes at Ug shs 72,000,000; protection of three springs at Ug shs 19,500,000 and rehabilitation of six boreholes at Ug shs 33,960,000. The contracts for boreholes had been submitted to the Office of Solicitor General for clearance. Procurements for the protection of spring wells and rehabilitation of boreholes were ongoing by February 2015.

Oyam district

The district safe water coverage is at 85%, functionality at 85% and sanitation coverage 80%. The planned office operations rose to 9% after money planned for sanitation was relocated to procurement of a motorcycle. Software remained at 8%, water supply 70%, and rehabilitation at 13%. The physical progress was as shown in Table 13.13.

Table 13.13: Physical performance of Oyam DWSDCG by January 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	4	2	The activity is on track as 50% is already achieved at midyear.
Extension staff quarterly review meeting.	4	2	The activity is on track as 50% is already achieved at midyear.

Planning and advocacy meetings at district and sub-county level	13	13	This was 100% achieved which was excellent performance
Training WUCs	57	57	The activity met the target (100% achievement)
Post construction support to WUCs	57	0	Planned for Q4.
Baseline survey	37	37	Excellent performance at 100% achievement
Water Quality Testing (new sources)	40	0	The activity was planned for Q3 and Q4.

Source: District Q2 report and field findings

The 17 boreholes were planned to be constructed at a cost of Ug shs 340,000,000; construction of 15 shallow wells at Ug shs 150,000,000; protection of six springs at Ug shs 27,000,000 and rehabilitation of 20 boreholes at Ug shs 90,000,000. The procurement process for all works was still ongoing at the time of monitoring in January 2015.

Pader district

Safe water access was at 77%, functionality of water sources at 85% and sanitation coverage at 52%. The district planned software implementation at 8%, office operation 6%, water supply 70%, rehabilitation 13%, and sanitation hardware 3% thus compliant to the set guidelines. The status of implementation was as depicted in Table 13.14.

Table 13.14: Physical performance of Pader DWSDCG by January 2015

Planned output	**Target**	**Achievement by February 2015**	**Remarks/Status**
DWSCC meetings	4	1	The department had not accessed funds for the activity in Q2
Extension staff quarterly review meeting	4	1	The department had not accessed funds for the activity in Q2
Planning and advocacy meetings at district (part of software)	2	2	This was an excellent achievement at 100%
Training of WUCs	46	46	The funds were received later but the activity was ongoing

Post construction support to WUCs	12	3	The output was 25% achieved which was below average
Baseline survey	46	46	The activity was 100% achieved
A four stance VIP latrine is to be constructed at Laguti market(supported by both PAF and PRDP)	1	0	This was under procurement and planned for Q3.
Water Quality Testing (old sources)	12	0	Money received late and activity not carried out.

Source: District Q2 progress reports and field findings

The district planned for one shallow well construction at Ug shs 9,033,500 protection of one spring at Ug shs 9,742,624; construction of 22 deep boreholes will cost Ug shs 415,093,008 and rehabilitation of 18 boreholes cost Ug shs 86,122,640. Construction works were ongoing by February 2015. Some boreholes awaited casting and pump installment.


L-R: Drilling works of Pagwari West, Lagwai parish, Achoro parish; Dognam East borehole, Lagwari parish (Pader Town Council in Pader District)

Serere district

The district access to safe water is at 69.6%, functionality of water sources 90% and sanitation coverage at 58%. The planned software activities in the FY 2014/15 were at 8.9%, office operations 9.8%, water supply 65.6%, rehabilitation 13.9 % and sanitation hardware 2%. The office is planning to construct an office and some money formerly planned for Kamod transmission line had been reallocated to this thus affecting the planning figures. The district implementation status for the grant was as reflected in Table 13.15.

Table 13.15: Physical performance of Serere DWSDCG by February 2015

Planned output	Target	Achievement by February 2015	Remarks/Status
DWSCC meetings	4	2	This was on track as per the midyear target (50%).
Extension staff quarterly review meeting	2	1	This was achieved as planned by the end of Q2.
Planning and advocacy meetings at district and sub-county	2	2	This was achieved 100%
Training WUCs	25	25	This was 100% achieved
Post construction support to WUCs	2	1	This was a 50% achievement.
Baseline survey of new sources	10	5	This was a 50% achievement.
Construction of a public latrine in Kidetok RGC	1	0	The works were waiting for awards after evaluations
Water Quality Testing (old sources)	7	5	This was 71% achieved

Source: District Q2 progress reports and field findings

The district had planned to rehabilitate the Kamod transmission line of 1.2km in Kisero Trading Center at Ug shs 32 million but this was carried out by Water and Sanitation Development Facility East (WSDF-E). The planned money for Kamod will be spent on the construction works for the new water office. The district planned to construct 11 shallow wells at a cost of Ug shs 57,530,000, drill 14 boreholes at Ug shs 212,310,000 and rehabilitate 10 boreholes estimated at Ug shs 95,500,000. All works were awaiting contract awards.

Sustainability of constructed sources

The MWE emphasizes sustainability of established facilities by committing communities to contribute towards capital, engaging the Hand Pump Mechanic Associations (HPMAs) to carryout rehabilitation works and establishment of WUCs. The MWE advises districts to sensitize beneficiary communities to contribute towards the capital cost in form of Community Contribution towards Capital Cost (C.C.C.C). The community contributes Ug shs 200,000 for each borehole constructed, Ug shs 100,000 for a shallow well and Ug shs 150,000 or Ug shs 100,000 for large and small springs respectively. Communities in Apac and Agago districts

contributed 100% towards C.C.C.C. Communities in other districts found it difficult to contribute this money.

The Public Procurement and Disposal of Public Assets Authority cleared the HPMAs to do rehabilitation of water sources minus other conditions put on other service providers like being VAT registered. The district of Kyenjojo had taken on the initiative and started using these mechanics to do rehabilitation of the water sources. This is believed to be cheaper compared to use of companies. A good case of operation and maintenance was experienced in Apac district. The District Water Office (DWO) operates a spare parts outlet (Box 2) that has eased acquisition of affordable spare parts.

Box 14.1: A spare-part outlet in Apac district

The district water office of Apac operates a spare parts outlet that is managed by the Borehole Maintenance Technician (BHT). The account number is displayed on the noticeboard for everybody to take note. The contributions from the beneficiaries are banked direct to the RWSS account thus avoiding abuse on the general account where it would be counted as local revenue. A bank statement can be accessed to tell how much and who has contributed. The person who deposits keeps a slip that is taken to the water office. The money is used to buy spares from supplier firms in Kampala. Thus the community is able to get spares at cheap prices. For example a raiser pipe that costs Ug shs 80,000 on the open market is sold at Ug shs 60,000. The money paid is used for restocking.

Source: Apac DWO

Challenges faced during implementation of the DWSDCG

- Fewer facilities than planned were constructed due to increased unit cost arising from the introduction of VAT.
- Delayed implementation of works due to late submission of procurement plans by other departments and staffing gaps.
- Transaction delays due to bureaucracies in processing payments in the IFMS, budget rule principle and network failure.
- Funds were not released as per the sector quarterly plans leading to implementation of activities in subsequent quarters.
- Limited supervision of field activities due to inadequate transport.
- Development of water points is affected by unwillingness of land owners to host the facilities.
- Increasing unit cost of water projects due to the rising cost of construction materials.

Recommendations

- The MFPED should communicate new tax measures early to enable proper planning by the districts.
- The districts should ensure timely initiation of the procurement process and giving penalties for noncompliance.
- The District Service Commissions (DSCs) should recruit key personnel provided for in the structure.
- The MFPED and MoLG should ensure smooth operation of the IFMS in districts.
- The MFPED should harmonize releases with work plans to enable effective budget utilization.
- Districts should plan purchase of vehicles in consultation with the MWE to ease supervision and monitoring of works.
- Technical staff and politicians should jointly mobilize and sensitize communities to accept hosting water points.

Analysis

Link between financial and physical performance

There was a weak link between the financial performance and physical performance. The overall average financial performance for the DWSDCG was 24.9% whereas the physical performance was 66%.

Achievement of set targets

Some performance targets set to be achieved by the end of December 2014. Most software activities were implemented but four districts had started construction works by the time of monitoring. The rest of the districts were still signing contracts with the contractors or had just signed contracts and taking up sites.

Comparative analysis across monitored districts

All the ten districts monitored received 50% of both the DWSDCG by Q2. The utilization levels were good for the software activities and below average for hardware activities. The districts of Iganga, Kyenjojo, Pader and Mubende had started construction works because they initiated procurement early. Kyenjojo had finished rehabilitation of some shallow wells having used the Hand Pump Mechanic Association as the new guidelines advice districts.

The rest of the districts were still in the procurement process with some contracts at the Solicitor General's office awaiting approval.

Conclusion

Substantial progress was realized in the software implementation with slow progress of works since procurement was ongoing in 60% of the districts. Only one district had a few constructed and rehabilitated facilities functional. Therefore the mid-year performance minimally contributed to the outcome target of increased access to quality safe water and sanitation facilities for rural areas.

The major challenges of implementation were the slow procurement process, poor releases where monies are spread equally throughout the quarters, delays in the IFMS, and introduction of VAT which increased unit costs.

Recommendations

- The districts should adhere to procurement plans and departments that fallout be given penalties.
- The MFPED and MoLG should train more IFMS users to avoid over delays most especially where the system stops because one person is not around.
- The planning Unit in the MFPED should release monies according to the district work plans to enable them have high levels of utilization.

13.4 District Hygiene and Sanitation Conditional Grant (DHSCG)

Background

The districts receive the District Hygiene and Sanitation Conditional Grant (DHSCG) to carry out Improved Sanitation and Hygiene (ISH) activities. The planning guidelines offered to DLGs emphasize planning two activities for improved hygiene and sanitation which are Home Improvement Campaigns (HICs) and Community Led Total Sanitation (CLTS). It is from these activities that the districts based their planning in the FY 2014/15. The major outcome target of the DHSCG is increased access to safe and effective sanitation facilities.

Planned outputs for FY 2014/15

- Rapport with village leaders: Local Councils (LCs) and Village Health Teams (VHTs) on parameters and setting date for the launch created.
- Village level campaigns launched
- Community baselines implemented (transects, mapping, Participatory Hygiene and Sanitation Tools)
- Data verified and updated by LCs & VHTs (Tree/Wall of shame/fame).
- Communities mobilized, sensitized and followed up
- Sanitation and hygiene progress assessed by sub-county team
- Sanitation and hygiene progress verified by the district
- Best performers recognized and rewarded

Findings

a) Financial performance

The approved budget for the eight monitored districts is Ug shs 156,000,000. By December 2014, the districts had realized Ug shs 77,050,000 (49%) and spent Ug shs 57,808,090 (75%) of the budgets which was an excellent release and very good absorption performance respectively. Table 13.16 shows the financial performance of the sampled districts for DSHCG by December 2014.

Table 13.16: Financial performance of DHSCG by 31st December 2014

	Approved budget (Ug shs)	Releases (Ug shs)	% Release	Expenditure (Ug shs)	% Absorption
	23,000,000	11,000,000	50%	8,120,000	73.8%
	22,000,000	11,000,000	50%	5,958,000	54.5%
	22,000,000	11,000,000	50%	8,865,090	80.6%
	22,000,000	11,000,000	50%	10,890,000	99%
	23,000,000	11,500,000	50%	9,918,000	86.2%
	22,000,000	11,000,000	50%	5,369,000	48.8%
	22,000,000	11,000,000	50%	8,688,000	79%

Source: District performance reports

b) Physical Performance

The districts chose two model sub-counties for implementation of hygiene and sanitation promotion activities selected in each district. The two categories implemented included the HICs or CLTS. Table 13.17 shows detailed physical performance of the DHSCG by 31st December 2014.

Table 13.17 Physical performance of DHSCG for eight districts by 31st December 2014

CLTS	The district planned to trigger CLTS in the 2 sub-counties of Lira Palwo and Lamiyo.	Creating rapport with village leaders, triggering and follow ups were done in Lira Palwo sub-county. This was in the 12 villages in the parishes of Lutome, Lanyiri nyiri, Omongo, Agengo, Ademi, Otaka, Paicam, Polcani and Ojur. However, more funds were spent on the activity than the amount planned.
HIC	Creating rapport with village leaders (LCs and VHTs) on HIC parameters and setting dates for launch in Nambaale and Nakalama sub-counties.	Follow-ups and support supervision activities by sub-county and district staff were done in the all sub-counties to address the poor state of sanitation and hygiene. The focus was dealing with latrine superstructures, cleanliness of latrines, refuse pits, bath shelters, drying racks safe water chain and hand washing facilities. There was little improvement as the district had just finished start up activities and was planning

		to follow up on action points for improvement.
HIC	The hygiene and sanitation activities were planned in the Nyantungo and Bugaaki sub-counties. This will be in Mbale, Kyamutaasa and Buraro in Nyantungo; Rugombe and Mitoma in Bugaaki sub-county.	The district created rapport with leaders in all sub-counties, launched the campaign and carried out baseline surveys as per December 2014. The rest of the activities were planned for Q3 and Q4. This was an excellent achievement as planned activities up too December were 100% achieved.
HIC	The Hygiene and Sanitation campaigns were planned in the sub-county of Kitenga the parishes of Bugozi, Bukonzi, Kyegeza and Kalonga. In Madudu sub-county in 20 villages of Kabilamuriro parish, and Kakenzi parish in 11villages.	The district created rapport with leaders in all sub-counties, launched the campaign and carried out baseline surveys .By end of December only one out of three follow up visits was made and little improvement was registered in all sub-counties.
CLTS	Triggering was planned in 10 villages in the Panyabono parish Alero sub-county and in 11 villages of Ywa Parish in Anaka sub-county.	Rapport was created with village leaders, identified villages triggered and follow ups were made in 10 villages in Panyabono.
CLTS	The district planned to carry out CLTS. This would be in 2 sub-counties of Ngai in okomo parish; Agaba A, Agaba B and Iceme in orupu parish, in Ajaka A, Otwono, Aweibwote, Abyenek A, Makweri villages.	Created rapport with leaders and triggering activities in 10 identified villages were done. The task force for sanitation improvement was established by the communities including the LCIs, action planning for improvement done and open defecation was verbally condemned in the 10 villages.
CLTS	Planned to be carried out CLTS in 2 sub-counties of	Created rapport with VHTs, LCI and planning, preparation and setting dates for triggering of all

	Kilak and Atanga. In each sub-county 10 villages were identified.	selected villages was done

Source: DWO Reports and field findings

The DHS Implementation Challenges

- Low response and compliance of the communities due to non-exemplary leaders.
- Delayed release of Q2 funds slowed the implementation of sanitation activities due to.
- Inadequate teaching materials/aid to sensitize communities.
- Inadequate allocation to the grant to make a meaningful impact.
- Adverse weather conditions affected latrine construction.

Analysis

Link between financial and physical performance
The financial performance for the DHSG was linked to the physical performance.

Achievement of set targets
Most performance targets set to be achieved by the end of December 2014 for DHSDCG were achieved. Creation of rapport with VHTs, LCI and planning, preparation and setting dates for triggering of selected villages was achieved in all districts.

Conclusion

The performance of the DHSDG was rated as good at 65%. The districts carried out initial rapport creation with village leaders, identified villages triggered and a few follow ups made in some villages for CLTS. The district created rapport with leaders in all sub-counties launched the campaigns but still a few districts carried out baseline surveys as per the Q2 targets.

The major challenges of implementation were uncooperative leaders and untimely release of funds.

Recommendations

- The districts should ensure community leaders are responsive to sanitation improvement programs.
- The MFPED should ensure timely release of funds.
- The MoH/MWE should provide enough teaching and learning aids to the districts.
- The MoH/MoES should allocate funds to the DHSCG.
- The districts should reschedule activities in line with the seasons.

Vote Function 0902: Urban Water Supply and Sanitation (UWSS)

Background

The mission statement for the sub-sector is: *"provision of sustainable water and sanitation services to the population and economic activities in the urban areas of Uganda."*[3]

The term "urban" is obtained from the current Uganda Bureau of Statistics (UBOS) definition, which refers to all gazetted cities, municipalities, town councils and town boards. The urban areas are subdivided into two divisions: i) large urban towns[4] which are managed and operated by National Water and Sewerage Corporation (NWSC), and ii) Small Towns (STs)[5] which are managed by the town councils and town boards as Water Authorities (WAs) and operated by Private Operators (POs) who are contracted by WAs.

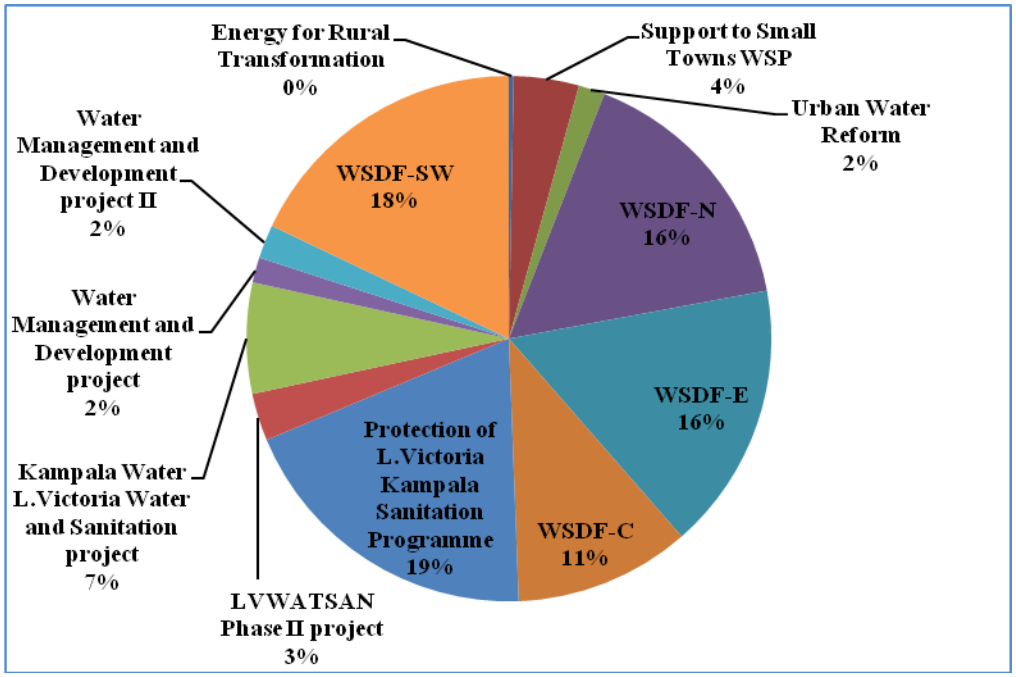
Key interventions in the small towns are mainly carried out through the Water and Sanitation Development Facilities (WSDFs), and the MWE center that implements stand-alone projects.

Findings

Financial Performance

The UWSS VF approved budget is Ug shs 150.70 billion, of which Ug shs 56.98 billion (37.81%) was released and Ug shs 54.94 billion (96.43%) spent by December 2014. This was a very good release, and excellent absorption performance. In terms of development budget the expenditure prioritization is reflected in Figure 13.4. The bulk of funds (61%) were spent by the WSDFs.

Figure 13.4: Expenditure prioritization of the UWSS VF by 31st December 2014



Source: MWE Q2 progress report

[3] Uganda Water Sector Strategic Investment Plan
[4] Kampala City, Municipalities and some town councils
[5] Town boards, and some town councils not under the jurisdiction of NWSC

Physical performance

The monitoring work focused on the WSDF-C, WSDF-E, WSDF-N and WSDF-SW projects, and the findings are presented below.

13.5 Project 1130: Water and Sanitation Development Facility-Central (WSDF-C)

Background

In July 2010, the WSDF-C was established following successful establishment of WSDF-SW, WSDF-N and WSDF-E. The project commenced on 1st July 2010 and is scheduled to end in June 2016.
The overall objective of the WSDF-C is "to support the development of water supply and sanitation in STs and RGCs of 25 districts in the central and mid-western Uganda, through a decentralized and demand driven approach". The Facility is funded by the GoU and ADB.

Specific activities of the WSDF-C are: i) Investment in water supply infrastructure, ii) Improved sanitation status in communities through promotion of ecological sanitation and awareness creation, and iii) provide support to Water Authorities, Private Operators and the community in the management of piped water schemes, and sanitation facilities.

Key planned project outputs for the FY 2014/15

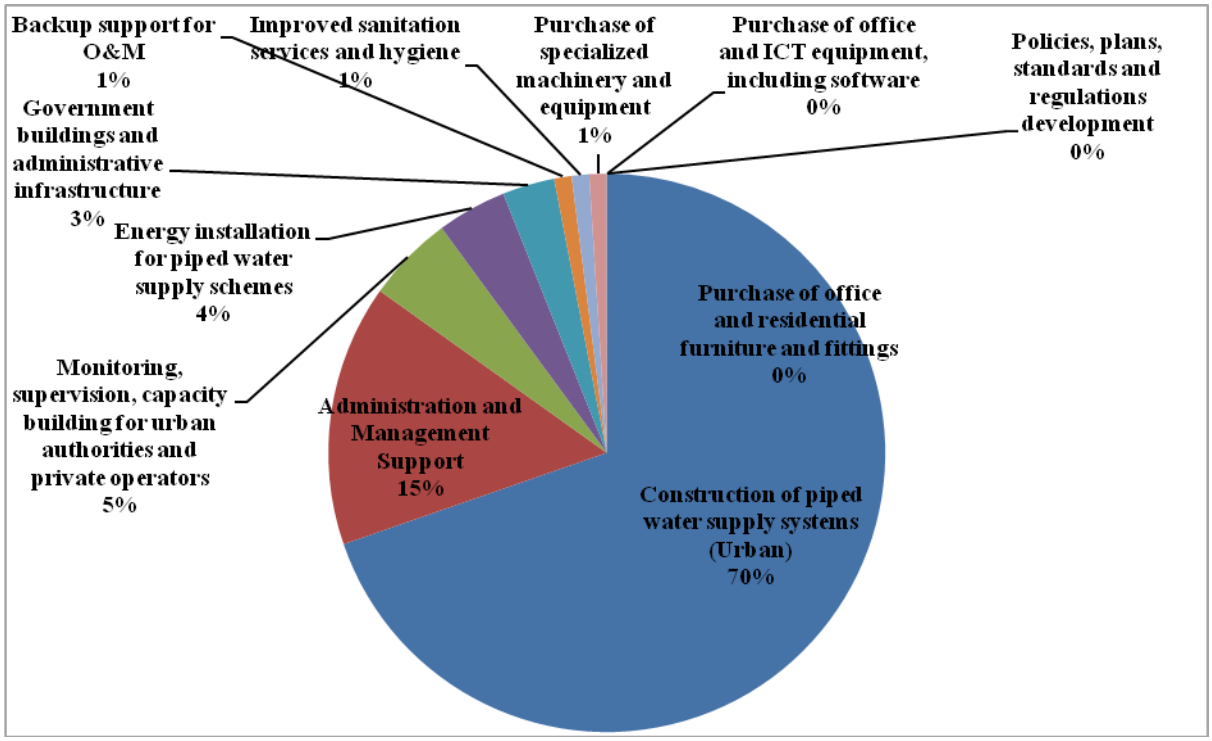
- Hygiene and sanitation promotion activities conducted in 20 towns.
- Construction of the WSDF-C regional office in Wakiso completed.
- Six motorcycles for completed schemes procured.
- Construction of piped water supply systems in seven towns completed.
- Construction of piped water supply systems in seven towns commenced.
- Five piped water supply systems rehabilitated.
- National grid power extended in 10 towns.
- 80 ecosan toilets constructed in nine towns.

The midyear monitoring focused on the construction of Kakumiro water supply scheme under output number four.

Financial performance

The approved budget of Project 1130 is Ug shs 24,386,000,000 of which Ug shs 12,086,765,500 (49.56%) was released and Ug shs 14,050,985,500 (116.25%) spent by 31st December 2014. The release and absorption performances were excellent by midyear. An over expenditure of Ug shs 1,964,220,000 was due to funds and commitments carried over from the previous FY. The expenditure prioritization was good as 70% of funds were spent on construction of piped water supply systems in urban centers (Figure 13.5).

Figure 13.5: Expenditure prioritization (GoU) of project 1130 by 31st December 2014



Source: IFMS

Physical performance

a) Construction of Kakumiro Town Water Supply System

Kakumiro Town Council is located in Kibaale district. The town water supply system has been designed to serve 7,754 people on completion and 15,000 people by 2030.The construction contract was awarded to M/s Karobwa Technical Services Ltd. The works commenced on 7th July 2014 and is scheduled to end by 7th March 2015. The WSDF-C designed and is doing supervision works.

The scope of works: Construction of pump station, office block, public stand posts and private connections, supply, laying and backfilling of transmission and distribution mains, supply and installation of reservoir tanks, and electromechanical works.

Financial performance

An advance payment and two payment certificates had been issued as presented in Table 13.18.

Table 13.18: Financial performance of Kakumiro Town Water Supply System by 31st December 2014 in Ug shs

Contract sum 4,054,450,158		
Payment type	**Amounts certified & paid**	**Date of payment**
Advance Payment (recovered under certificates)	1,216,335,047	24th June, 2014
Certificate 1	1,443,337,220	5th September, 2014
Certificate 2	731,852,140	14th November, 2014
Total Amount Paid	**3,391,524,407**	

Source: WSDF-C

Physical performance

The overall physical progress achieved by 17th February 2015 was 85%. Major ongoing works were at the pump station, transmission mains, and reservoir tanks (Table 13.19). The works were on schedule.

Table 13.19: Physical performance of Kakumiro Town Water Supply System by 17th February 2015

Planned Outputs	Status / Field findings	Remarks
Pump station works The works involved construction of: A pump house comprising of a generator room A two-roomed guard house inclusive of ecosan toilet and bath. A 100m^3 reinforced concrete collection tank. Fencing and landscaping.	Finished works were: Construction of the pump house with generator room, the guard house with ecosan toilet, the 100m^3 reinforced concrete collection tank, and fencing off the pump station. Pending works were: Floor and wall finishes for the pump house and guard house, connection of the reinforced concrete tank to the pipe network and landscaping.	The quality of construction works was satisfactory.
Electromechanical works Supply and installation of two	The submersible pumps and	Orders for the pumps,

Planned Outputs	Status / Field findings	Remarks
submersible pumps ($21m^3$/hr and $14m^3$/hr); two surface pumps each $30m^3$/hr; extension of 3-phase national grid power with a 50kVA transformer; supply and installation of 75kVA generator, a surge protection vessel, and supply of plumbing tools and equipment.	surface pumps were not yet supplied and installed. The electrical power lines and poles were installed, awaiting delivery of the transformer. The surge protection vessel, plumbing tools and equipment were not yet supplied.	transformer, generator, and surge protection vessel had been placed, awaiting delivery.
Transmission mains Supply, lay, backfill, pressure test and commission 6.4km of GI and uPVC pipes, OD 160mm and fixing of all associated fittings.	The transmission mains works were 99% complete. Gabion works were ongoing in a swampy section over which the remaining 100m GI pipeline was to be laid.	The pipe works were satisfactory.
Distribution mains Supply, lay, backfill, test and commission 17.3km of PVC and HDPE pipes of various sizes and fixing of all associated fittings.	The distribution mains works were 100% complete and awaiting pressure testing.	
Reservoir tanks Supply, installation and commissioning of a prefabricated cold pressed $150m^3$ steel tank on dwarf walls (Kakumiro main reservoir tank) $20m^3$ cylindrical steel tank on dwarf walls (for Kasingo trading center) $20m^3$ cylindrical steel tank on a 6m high steel tower (for Kanyawawa trading center).	The $150m^3$ main reservoir tank was 90% complete and the contractor was assembling the top steel plates. The $20m^3$ tank had already been supplied awaiting installation. Steel works for the dwarf columns were ongoing. The $20m^3$ steel tank for Kanyawawa was 98% complete. Pending works were landscaping and connection of the tank to the distribution mains.	The tank plates were securely assembled. The quality of work was good.
Chlorination treatment unit		

Planned Outputs	Status / Field findings	Remarks
Supply and installation of a water treatment equipment	The chlorine dosing equipment was not yet supplied.	This was scheduled for a later date.
Water office Construction of water office block with inbuilt water borne toilet, and equipping the office with furniture. Landscaping and fencing of office block premises.	The water office with inbuilt water borne toilet was 99% complete, landscaping and fencing were finished. Pending works were: Fitting of window glass panes, power extension and supply of furniture.	The water office structure had developed several cracks on the wall and verandah which need reinstatement.
Service connections Construction of 10 public stand posts, and 250 private connections.	The 10 public stand posts were not yet constructed. Excavations for laying 45 private connections had been made.	The works were scheduled for a later date.
Overall physical progress: 85%	The physical progress of works was lagging by 2.5%.	
Overall contract time elapsed: 87.5%		

Source: WSDF-C and field findings

R-L: Water office in Kakumiro town council; 20m^3 reservoir tank at Kanyawawa Primary School

Implementation challenges

1. Rocky formation and swampy ground encountered during construction was in excess of what was planned for in the BOQ, leading to design and material changes.

2. Inclusion of Kasingo Trading Centre community which was not considered in the original contract led to additional woks and time requirements on the contract.

Analysis

Link between financial and physical performance

The financial and physical performances were excellent and closely linked. By 17th February 2015, financial performance of Kakumiro Water Supply System was 83.6% while the physical performance was 85%.

Achievement of set targets

The Kakumiro Water Supply System target was not achieved. The planned target was 100% completion by 7th March 2015 but works were at 85% complete on 17th February 2015. Given the limited time left and the pending works (installation of the electromechanical works, completion of Kasingo reservoir tank and completion of private consumer connections) the project was not likely to achieve the set target within the contract period.

Conclusion

The objective for the construction of Kakumiro Water Supply System is to provide safe water supply to Kakumiro Town Council, Kasingo and Kanyawawa trading centers. With 85% physical progress, the objective is on the course of being achieved. Though, this was likely to be achieved beyond the contract period.

Recommendation

- The WSDF-C should expedite works to achieve the set target within the contract period.

13.6 Project 1075: Water and Sanitation Development Facility-East (WSDF-E)

Background

The WSDF-E was established in July 2009 as a service delivery and funding mechanism to focus on provision of water supply and sanitation to STs and RGCs in 39 districts in North-East and Eastern regions. The project completion date is June 2017. The current funding sources are GoU, the German financial cooperation with Uganda, and the European Union (EU) Millennium Development Goal (MDG) initiative.

Key planned outputs for FY 2014/15

- Operation and Maintenance structures established in seven towns.
- Defects liability period in 12 completed towns monitored.
- Private operators procured in six towns.
- Feasibility study and design of 10 urban piped water supply systems carried out.
- Piped water supply construction in five towns commenced.
- Construction of eight water supply systems continued.
- Construction of two water supply systems completed.
- National grid power in five towns extended.

The midyear monitoring focused on the continued construction of Kacumbala, Ochero and Matany water supply systems.

Financial performance

The WSDF-E approved budget for FY 2014/15 is Ug shs 22,708,000,000. By end of Q2, Ug shs 9,639,348,417 (42.45%) was released and Ug shs 6,134,626,706 (63.64%) spent. The over expenditure was due to funds for unpaid works brought forward from the previous FY. Table 13.20 presents the project financial performance details.

Table 13.20: Financial performance of WSDF-E by 31st December 2014 (Ug shs)

Donor	21,230,000,000 (93.49%)	8,826,000,000	6,134,626,706
GoU	1,478,000,000 (6.51%)	813,348,417	952,605,186
Total	**22,708,000,000**	**9,639,348,417**	**6,134,626,706**

Source: WSDF-E

Physical performance

A) Expansion of Kacumbala Town Water Supply System

Kachumbala town is located in Kachumbala sub-county, Bukedea district. In the year 2002, the Ministry of Water, Lands and Environment (MoWLE) contracted M&E Associates Ltd to carry out feasibility studies and prepare detailed design for Kachumbala Town Water Supply System. In 2006, the system was constructed and commissioned. Water treatment was not

considered in the original design since the water quality at the time was found to be satisfactory; hence raw water was pumped and distributed. However, over the years, the community kept complaining about the water quality and quantity.

The WSDF-E then undertook another detailed design in which water treatment requirements were established and production capacity expanded. The contract for expansion works were contracted to M/s VIDAS Engineering Services Company Ltd from 19th February, 2014 to 18th February 2015 at a contract sum of Ug shs 1,403,803,368 (VAT Exclusive). The Defects Liability Period (DLP) was slated for 12 months.

The scope of works was: Construction of the intake works and chlorine house; supply, laying and backfilling transmission mains; supply and installation of the water balance tank, water treatment unit, water storage tank, and electromechanical works.

Towards the end of the construction works, the WSDF-E received a request from the community to further expand the distribution network to serve additional populations. A second contract at a sum of Ug shs 586,074,063 was then awarded to M/s VIDAS Engineering Services Company Ltd for a period of four months from 23rd October, 2014 to 23rd February, 2015 and a DLP of six months.

The scope of works for the second contract: Extension of the distribution network, construction of service connections. The two contracts were running concurrently.

Financial performance

Contract I: Table 13.21 provides details of payment certificates to the contractor.

Table 13.21: Financial performance of Kachumbala Water Supply System by 31st December 2014 (Ug shs)

	1,403,803,368	
Payment Type	**Amounts certified & paid**	**Date of payment**
Advance Payment (recovered under certificates)	280,760,674	13th February, 2014
Certificate 1	670,483,170	28th April, 2014
Certificate 2	267,192,776	24th September, 2014
Total amount paid to the contractor	**1,218,436,619 (86.8%)**	

Source: WSDF-E

Contract II: The contract sum for the second contract was Ug shs 586,074,063. One payment certificate equivalent to Ug shs 381,863,097 (65.2%) of the contract sum was paid to the contractor on 19th January 2015.

Physical performance

Contract I: By 28th January, 2015 the overall physical performance was 90% achieved. Major works were complete (Table 13.22) except the additional works which had not yet commenced.

Table 13.22: Physical performance of Kachumbala Town Water Supply System by 27th January 2015

Planned Outputs	Status / Field findings	Remarks
Intake/ pump station works		
At Ginnery spring: Protection of the catchment area, construction of a 48m^3 water sump, a pump house and fencing of the pump station.	Works at Ginnery spring were 100% complete.	The quality of work was good.
At Abukol spring: Renovation of the old pump house and the ground tank, protection of the spring eyes and catchment area, and fencing of the pump station.	Renovation works at Abukol spring were 100% finished.	
Electromechanical works		
Supply and installation of submersible pumps of capacities 14m^3/hr at Ginnery spring and 5m^3/hr at Abukol spring.	The two pumps were supplied and installed.	The pumps were functional and able to deliver water to the reservoir tanks.
Supply and installation of 3-phase national grid power to the Ginnery pump station, and single phase power to the treatment plant.	The 3-phase and single phase national grid power were supplied and installed.	The power lines were functional.
Supply and installation of Electrolytic Disinfection Machine (EDM) capable of producing 2,492mg/hr of chlorine.	The EDM was supplied and installed.	
Supply and installation of lightning protection for pump houses and treatment plant.	The lightning protection was supplied and installed.	The lightning protection at Ginnery spring had been vandalized.
Supply of tools and equipment for O&M.	The tools and equipment had not yet been supplied.	Tools and equipment to be supplied during commissioning.

Planned Outputs	Status / Field findings	Remarks
Transmission mains Supply, laying, backfilling, testing and commissioning 1.5km of OD 90mm HDPE PN 16 pipes with all associated fittings.	The transmission mains works were 100% complete.	The pipes were well laid and backfilled.
Collection tank Supply and installation a steel tank of capacity 33m^3 on a 6.5m high steel tower.	A 33m^3 steel tank was constructed and installed on a 6.5m steel tower.	The workmanship was good.
Dayliff water treatment plant Supply, install and commission a two WP1000 model Dayliff conventional water treatment plant including sedimentation basin, filters, chemical dosage unit and pumps.	The Dayliff water treatment plant was supplied and installed. The treatment plant was pending technical commissioning.	
Chlorine house Construction of chlorine house.	Works on the chlorine house was 100% finished	The quality of work and workmanship was good.
Reservoir tank Supply, install and commission 50m^3 steel tank on a 5m high steel tower including all associated fittings.	A 50m^3 steel tank was installed on a 5m high steel tower.	The quality of work was good.
Extra / additional works Pipeline extension of 8.15km, construction of 20 private service connections and Supply of a jar test kit.	The extra works had not yet commenced.	These were scheduled for a later date.
Overall physical progress achieved: 90%	The works were substantially complete	
Contract time elapsed: 91.6%		

Source: WSDF-E reports and Field findings

Contract II: A 95% physical progress was achieved by 27th January 2015. Table 14.23 provides the details.

Table 14.23: Physical performance of Kachumbala Town Water Supply System by 27th January 2015

Planned Outputs	Status / Field findings	Remarks

Distribution mains Supply, laying, backfilling and commissioning 6.2km OD 110mm - OD 40mm HDPE pipes and 11.42km OD 63mm - OD50mm HDPE pipes including pressure testing and installation of all necessary fittings.	Supply, laying backfilling and pressure testing were finished. Construction of chamber covers and commissioning was pending	The piped were well laid.
Service connections Installation of three public stand posts, and 120 private connections with all associated fittings.	Constructions of the three public stand posts were finished. Service lines for 57 private connections were made.	Works were still ongoing.
Overall physical progress of works achieved: 95%	The works were substantially complete and the contract was on schedule.	
Contract time elapsed: 75%		

Source: WSDF-E reports and Field findings

Left: Vandalized lightning conductor at Ginnery pump station; Centre: Renovated pump house at Abukol spring; Right: Dayliff treatment plant on Kachumbala mission hill

Implementation challenge

- Delayed works due to communities not forwarding their needs for private connections in time.

Recommendations

- The WSDF-E should organize community sensitization meetings at the start of projects to inform communities on their roles.

B) Construction of Ochero Town Water Supply System

Ochero RGC is found in Ochero sub-county, Kaberamaido district. In the year 2009, a consultancy service contract was signed between Kaberamaido DLG and M/s Multec Consultants (U) Ltd to develop a design for Ochero water supply system. The design was successfully completed but the construction works never took off due to lack of funds by the district.

The WSDF-E reviewed and improved the original design in accordance with the guidelines for design of water supply systems for urban centers. The design horizon was upgraded from 2014 to 2027. M/s Palm Construction Ltd was awarded the contract for construction works between 25th February 2014 and 25th February 2015 at a contract sum of Ug shs 1,443,127,499. The works were supervised by the WSDF-E project staff.

The scope of works was: Construction of a pump station, supply, laying, and backfilling transmission and distribution mains, construction of a chlorine dosing unit, installation of water storage reservoir, electromechanical works, construction of service connections and construction of the water office.

Financial performance

The detailed financial performance of Ochero Town Water Supply System is presented in Table 13.24 below.

Table 13.24: Financial performance of Ochero Town Water Supply System by 28th January 2015 (Ug shs)

Contract sum: 1,443,127,499		
Payment type	**Amounts certified & paid**	**Date of payment**
Advance Payment (recovered under certificates)	359,525,659	22nd February 2014
Certificate 1	398,614,450	15th April 2014
Certificate 2	196,596,150	10th June 2014
Certificate 3	362,116,920	22nd June 2014
Certificate 4	296,245,900	7th January 2015
Total amount paid to the contractor	**854,958,970 (59.24%)**	

Source: WSDF-E

Physical performance

The overall physical performance for Ochero Water Supply System was estimated at 85% by 28th January 2015. Most of the major works were complete and the system was under test running. Table 13.25 provides the detailed physical performance for each component.

Table 13.25: Physical performance of Ochero Town Water Supply System by 28th January 2015

Planned Outputs	Status / Field findings	Remarks
Pump station works Construction of a pump house with a generator room, and a chlorine house with a store.	Pump station works were 100% complete.	The quality of work was good.
Electromechanical works Supply and installation of a submersible pump of capacity 15m3/hr. Extension of 3-phase power line to the pump station. Supply and installation of 30kVA generator.	The 15m3/hr pump was supplied and installed The power line was extended and installed at the pump station. A 30kVA generator was supplied and installed.	The pump was functional. Both power line and generator were functional and able to run the system.
Transmission mains Supply, lay and backfill 2km of transmission mains of HDPE OD 90mm PN16 including installation of all associated fittings.	2km of the transmission mains were supplied, laid and backfilled.	The transmission mains were well laid.
Distribution mains Supply, lay and backfill 9.2km of distribution mains.	9.2km of the distribution mains were supplied, laid and backfilled.	The distribution mains were well laid.
Reservoir tank Supply and installation of 50m3 steel reservoir tank on dwarf walls.	A 50m3 cold pressed steel water reservoir tank was supplied and installed on dwarf walls.	The reservoir tank was undergoing leakage testing. Leakage was observed at the bottom of the tank.
Chlorine house Construction of the chlorine dosing house, installation of the EDM and all its accessories.	Construction of the chlorine house was finished. Pending works were: Installation of lightning conductors, installation of doors on the chlorine house, supply and installation of the EDM and its accessories.	The workmanship was good.
Water office Construction of the water office block with inbuilt water borne toilet.	Finished works were: Construction of the water office block, construction of the septic tank, landscape, and	The workmanship was good, structural defects were not

Planned Outputs	Status / Field findings	Remarks
	fencing office area. Pending works were: Fixing of fascia boards, water gutters, internal doors and plumbing in the toilets.	observed. The materials had just been delivered on site.
Sanitation facilities Construction of public water borne toilet, institutional ecosan toilets and 10 household ecosan toilets.	A water borne public toilet of eight stances was constructed in Ochero Trading Centre. Pending works were plumbing, fixing of doors, and fascia board. The institutional ecosan toilets had not yet been constructed. 10 household ecosan toilets were constructed.	The quality of work was good. Works were scheduled for a later date.
Service connections Construction of 125 private connections	80 private consumer connections were installed and the water pressure was good.	The beneficiaries were happy with the new water supply system.
Overall physical performance: 85%	The major works were substantially completed and the scheme was undergoing test running.	
Contract time elapsed: 91.67%		

Source: WSDF-E reports and Field findings

Left: Water borne public toilet in Ochero town; Centre: Functional household private tap in Ochero town; Right: Leakage underneath the reservoir tank on Ochero hill

C) Renewal of Matany Town Water Supply System

Matany town water supply system is located in Matany town board, Napak district. The system was originally constructed by the MWE under Support to Small Towns Water and Sanitation Project in FY 2002/2003. With little or no major undertakings in O&M the system became nonfunctional over the years.

A technical assessment done by the WSDF-E in 2013 revealed that; some solar panels were stolen and others vandalized; the submersible pump was burnt, the public ecosan toilet was no longer in use; sections of the distribution and transmission mains were cut; there were five nonfunctional public water kiosks, and the generator was vandalized.

Due to the water scarcity experienced in Matany town, the WSDF-E embarked on a plan to restore functionality of the system through rehabilitation and expansion of the existing structures. M/s Palm Construction Ltd was awarded the contract for civil works at a sum of Ug shs 354,500,795, under the supervision of the WSDF-E project staff. The construction commencement date was 25th February 2014 and the scheduled end date was 25th February 2015.

The scope of works involved: Renovation of pump house, generator house, guard house; construction of chlorine dosing house; supply, laying, testing and commissioning of 3.8km of distribution pipe work; electromechanical works; and 80 private service connections.

Financial performance

The details of financial remittances to the contractor are presented in Table 13.26.

Table 13.26: Financial performance of Matany Town Water Supply System by 28th January 2015 (Ug shs)

Payment Type	Amounts certified & paid	Date of payment
Certificate 1	82,426,050	10th June 2014
Certificate 2	129,917,750	22nd June 2014
Certificate 3	32,240,000	7th January 2015
Total Amount Paid to contractor	**244,583,800 (68.99%)**	

Source: WSDF-E

Physical performance

By 28th January 2015, the physical performance of Matany Town Water Supply was 68%. Work was in progress for components like the chlorine house, pipe works etc. The system was functional using solar energy (Table 13.27).

Table 13.27: Physical performance of the renewal of Matany Town Water Supply System by 28th January 2015

Planned Outputs	Status / Field findings	Remarks
Pump station works Renovation of the existing pump house, generator house, guard house and ecosan toilet.	Renovation of the pump house, generator house, guard house, and ecosan toilet had not commenced.	Works were scheduled for a later date.
Electromechanical works Replacement of the vandalized and stolen solar panels, and installation of the solar control unit.	The solar control unit was installed. Replacement of the vandalized panels was pending.	The solar control unit was functional and water was being pumped to the existing reservoir tank.
Extension of 3-phase grid power line to the pump station.	The 3-phase power extension was pending.	Survey for power extension was finalized
Chlorine house Construction of a chlorine dosing house with a store and supply and installation of EDM with all its accessories.	Roofing and plastering of the chlorine house was finished. Pending works were: Fixing of doors and windows, and installation of the EDM and its accessories.	The quality of work on the chlorine house was good.
Distribution mains Supply, laying, testing and commissioning of 3.8km of distribution pipe work, including installation of all fittings and valve chambers	Supply, laying and backfilling of the 3.8km distribution mains works were finished. Finishes on the valve chambers were ongoing. Pressure testing and commissioning were pending.	
Service connections Construction of 80 private service connections	There were a few private connections made but their number could not be established. Applications for 30 private	The new connections were functional and the beneficiaries were grateful.

Planned Outputs	Status / Field findings	Remarks
Renovation of five public water kiosks.	connections were due for verification Replacement of taps and vandalized pipes were finished. Replacement of the facia board and painting were pending.	Three of the public kiosks were functional
Overall physical progress achieved: 68%	The contract was behind schedule.	
Contract time elapsed: 91.67%		

Source: Field findings / WSDF-E

Left: Solar control at the pump station in Matany town; Center: Chlorine house in Matany town; Left: Household private tap in Matany town

Analysis

Link between financial and physical progress

There was a fair link between financial and physical progress as bout 70.06% of funds were utilized for the construction of 84.5% of all the schemes combined.

Achievement of set targets

The set targets for Kachumbala and Ochero schemes were achieved by January 2015 except Matany which was lagging at 68% physical progress.

Comparative analysis

Kachumbala and Ochero water supply systems exhibited excellent physical progress as compared to Matany water supply system. The contractor for both Ochero and Matany concentrated more on Ochero than on Matany. More works progress was thus realized on Ochero than with Matany.

Conclusion

The performance of the WSDF-E with regard to water supply systems monitored was very good. Physical performance was excellent for Kachumbala and Ochero. Matany physical performance was good. The three schemes were functional and the beneficiaries interviewed expressed satisfaction with the water quality, quantity, and the reduced time taken to collect water. The objective of providing safe, adequate water was achieved in Kachumbala and Ochero.

13.7 Project 1074: Water and Sanitation Development Facility-North (WSDF-N)

Background

The WSDF-N was launched as a service delivery and funding mechanism to develop fully functional piped water supply systems and sanitation facilities in 52 STs / RGCs, and 73 former IDP camps across 23 districts in the West Nile, Lango and Acholi sub-regions. The project commenced in July 2008 and is expected to end by 30th June 2016.

The WSDF-N is under the Urban Water Supply and Sewerage Department within the Directorate of Water Development (DWD). It is implemented in the framework of the Joint Water and Sanitation Sector Programme Support (JWSSPS), which is funded jointly by the GoU and Development Partners, currently the German Development Bank (KfW).

Key project planned outputs for the FY 2014/15

- Eleven water boards trained in O&M.
- Eleven private operators trained in preventive maintenance and defects detection.
- Ten towns supported in major repairs and rehabilitation.
- 16 masons trained in construction of ecosan toilets
- Construction of six water supply systems completed.
- Designs for eight water supply systems completed.
- Construction of eight water supply systems commenced.
- Four towns connected to the national grid power.
- 48 ecosan toilets constructed in eight towns.

The mid-year monitoring focused on the construction of Purongo, Ibuje, Patongo and Opit water supply and sanitation systems.

Findings

Financial performance

The Table 13.20 presents financial performance of WSDF-N by 31st December 2014.

Table 13.20: Financial performance of WSDF- N by 31st December 2014 (Ug shs)

Donor	16,750,000,000	6,690,300,000	6,838,000,000
GoU	1,672,000,000	1,010,400,000	1,017,500,000
Total	**18,392,000,000**	**7,700,700,000**	**7,855,500,000**

Source: WSDF-N

Physical performance

A) Construction of Purongo RGC Piped Water Supply and Sanitation System

Purongo RGC is located in Purongo sub-county, Nwoya district. The piped water supply and sanitation system was designed to serve an estimated population of 9,470 people in Purongo RGC.

M/s Joadah Consults Ltd was contracted at a sum of Ug shs 377,850,000 to undertake the consultancy services for Purongo and Ovujo water supply and sanitation systems.

M/s Gets Technical Services Ltd was contracted at a sum of Ug shs 1,465,998,820 to undertake the construction works for a period of six months, starting on 15th January 2014 and ending 15th July 2014. However, the contract end date was extended to 15th January 2015 due to works delays of about four months caused by problems of land acquisition for construction of the public toilet. The DLP for this project was for one year.

The scope of works was: Construction of one pump station, an office block, sanitation facilities and public water kiosks, chlorination dosing unit, installation of a storage reservoir tank, private service connections and one generator, supply and laying of transmission and distribution mains.

Financial performance

By 22nd January 2015, the consultant had received payments amounting to Ug shs 227,687,200 (60.25%) of the supervision contract sum.

The contractor on the other hand had received payment totaling 1,060,539,772 (72.34%) of the contract sum. The detail of payments is presented in Table 13.21 below.

Table 13.21: Financial performance of Purongo RGC Piped Water Supply and Sanitation System by 31st December 2014 (Ug shs)

	1,465,998,820	
Payment type	**Amounts certified & paid**	**Date of payment**

Advance Payment (recovered under certificates)	293,199,764	2nd April, 2014
Certificate 1	79,341,121	27th March, 2014
Certificate 2	233,496,179	4th June, 2014
Certificate 3	400,489,463	7th July, 2014
Certificate 4	54,013,245	6th November, 2014
Total amount paid to the contractor	**1,060,539,772 (72.34%)**	

Source: WSDF-N

Physical performance

By 22nd January 2015, physical works were at 96% completion. The scheme was functional, using solar energy as the main source of power and a 20kVA generator as the alternative power source. The solar energy was installed under the ERT project of the Ministry of Energy and Mineral Development in 2012 in support of towns without grid power. Table 13.22 details the level of achievement for various works by January 2015.

Table 13.22: Physical performance for Purongo RGC Piped Water Supply and Sanitation System by 22nd January 2015

Planned Outputs	Status / Field findings	Remarks
Pump station works Construction of a generator house, pump house, ecosan toilet, guard house, landscaping and fencing.	Construction of the generator house, pump house, ecosan toilet, guard house and fencing pump station area were finished. Landscaping was ongoing.	The quality of work on the structures was good.
Electro-mechanical works Supply and installation of submersible water pump discharging $5m^3$/hr at a head of 120m including the necessary plumbing works, pump controls and equipment.	The $5m^3$/hr pump was supplied and installed.	The pump was functional and able to deliver water to the reservoir tank.
Supply and installation of a 20kVA generator of Perkins engine manufacture.	A 20kVA generator of Perkins engine manufacture was supplied and installed.	The generator was brand new, and able to run the system.
Supply of tools and equipment	Tools for O&M were not yet	

Planned Outputs	Status / Field findings	Remarks
necessary for O&M of the system as provided in the contract.	procured pending commissioning of the system.	
Transmission mains Supply, lay, backfill, pressure test and commission 0.735km OD 75mm, 0.225km OD 63mm, HDPE PN 16 pipes and install all associated fittings.	The transmission mains works were 100% complete.	Cases of major bursts were not reported/ observed.
Distribution mains Supply, lay, backfill, test and commission 14.935km of HDPE PN10 pipes of assorted diameters and install all associated fittings.	The distribution mains works were 100% complete.	Cases of major bursts were not reported/ observed.
Chlorine house Construction of a chlorine house, supply and installation of dosatron equipment with all associated fittings.	Construction of the chlorine house, supply and installation of the dosatron equipment and associated fittings was pending.	The consultant was yet to approve the chlorine house design for the construction to commence.
Reservoir tank Supply, installation and commissioning of a cold pressed water storage steel tank of capacity $100m^3$ on a 12m steel tower on Purongo hill; fencing and landscaping of the tank area.	Finished works were: Supply and installation of the $100m^3$ steel tank on a 12m high steel tower on Purongo hill and fencing of the tank area. Landscaping was pending.	The tank was functional and without leakages.
Water office Construction and equipping office block, including landscaping and fencing. Construction of one block water borne toilet and installation of the overhead water supply tank.	Finished works were: Construction of the office block, supply of office furniture and fencing of land area. Landscaping was ongoing. One block of four stance water borne toilet was constructed at the water office premises. The tank stand for the overhead water supply tank was erected. The water tank was supplied.	The quality of work and materials on site were good.

Planned Outputs	Status / Field findings	Remarks
Sanitation facilities Construction of seven ecosan toilets (Five at household level and two at the pump stations).	Construction of the seven ecosan toilets was finished.	The quality of work done was good.
Construction of institutional toilets. (Two blocks each of five stances).	Two blocks of drainable VIP latrines (five stances each) were constructed at Purongo Hill P/S.	The quality of work was generally good save for some minor cracks on the splash apron.
Construction of one block of six stances water borne public toilet.	A block of water borne public toilet (six stances) was being constructed at Purongo TC. Finished works were: Construction of the super structure, plastering, and construction of the septic tank. Pending works were: Tiling, plumbing, construction of the soak away, roofing of the toilet, and connection of water supply to the toilet.	The door frames and door shutters installed for the public toilet were of low grade.
Service connections Construction of two public water kiosks.	Construction of the two public water kiosks was finished and functional.	The quality of work was generally good except for several minor cracks on the splash apron.
Construction of 200 private tap water connections.	178 metered connections were receiving water. 22 private connections were pending verification.	The quality of water supplied and the discharge pressure were very good.
Overall physical progress was: 96%	The scheme was substantially complete and functional.	
Contract time elapsed was: 100%		

Source: WSDF-N progress reports and field findings

L-R: Water borne public toilet, ongoing landscaping at the water office and a public water kiosk, all at Purongo trading centre

Implementation challenges

1) Delayed implementation of the project was due to:
    i) Land acquisition problems for various components e.g. public toilet, reservoir tank by the sub-county.
    ii) Delayed authorization from UNRA to cut through Karuma-Arua road
    iii) Community members claiming ownership of the road reserves.

2) Difficulty of laying private service connections, due to unplanned settlement patterns.

Recommendations

- The MWE should ensure that the sub-county authorities plan and budget for land acquisition under water projects.
- The UNRA should provide service ducts for road crossings.
- The sub-county authority should sensitize the community on the purpose of road reserves.
- The sub-county/district physical planning authority should regulate building and settlement patterns.

B) Construction of Ibuje RGC Piped Water Supply and Sanitation System

Ibuje RGC Piped Water Supply and Sanitation System is located in Ibuje sub-county, Apac district. The scheme was designed to provide safe water supply and improved sanitation to an estimated population of 6,721 people living in Ibuje sub-county within a design period of 20 years.

The WSDF-N contracted M/s Balaji Industrial and Agricultural Castings to undertake the construction works at a sum of Ug shs 1,585,919,049 and M/s Kagga and Partners Consulting

Engineers to carry out the supervision works at a sum of Ug shs 368,875,000. Construction works commenced on 15th January, 2014 and were supposed to end by 15th July 2014, after a period of six months. However due to delays caused by design review changes, the contract period was extended to 19th December 2014.

The scope of works were: Construction of two pump stations, a chlorine dosing unit, 200 private service connections, an office block, a water kiosk and sanitation facilities. Supply, laying and backfilling transmission and distribution mains, installation of reservoir tank, a generator and grid power extension.

Financial performance

By 19th January 2015, the consultant had received Ug shs 165,993,750 (45% of the total consultancy supervision cost), and four payment certificates had been issued to the contractor amounting to Ug shs 1,221,250,313 (77%). Table 13.23 shows the schedule of payments to the contractor.

Table 13.23: Financial performance of Ibuje RGC Piped Water Supply and Sanitation System by 19th January 2015 (Ug shs)

	1,585,919,049	
Payment type	**Amounts certified**	**Date of payment**
Advance Payment (recovered under certificates)	317,183,810	2nd April, 2014
Certificate 1	181,974,894	9th May, 2014
Certificate 2	85,851,514	7th July, 2014
Certificate 3	373,035,048	20th October, 2014
Certificate 4	263,205,047	18th December, 2014
Total amount paid to the contractor	**1,221,250,313 (77%)**	

Source: WSDF-N

Physical performance

By 19th January, 2015, the physical performance was at 99% completion and the system was under test running. All the major components of the system had been completed as detailed in Table 13.24. The system was functional, using national grid as the main source of power and a 21.3kVA generator as the alternative power source. However, the water supply was not regular due to fluctuations in grid power and the generator was not being utilized full time.

Table 13.24: Physical performance of Ibuje RGC Piped Water Supply and Sanitation System

Planned Outputs	Status / Field findings	Remarks
Pump station works Pump station 1: Construction of a generator house, pump house, an ecosan toilet, guard house, landscaping, and fencing the pump station. Pump station 2: Construction of pump house, fencing and landscaping.	Works at both pump stations were 100% finished.	The quality of work at both stations was good.
Electro-mechanical works: Supply and installation of two submersible water pumps discharging $5m^3$/hr at a head of 170m at each pump station.	A water pump of $5m^3$/hr was installed at each pump station.	Both pumps were functional and able to deliver water to the reservoir.
Supply and installation of a generator to Perkins engine manufacture.	A brand new 21.3kVA generator was supplied and installed.	The generator was functional and able to run the pumps effectively.
Supply of tools and equipment necessary for O&M.	Tools and equipment for O&M were not yet supplied.	These were to be supplied at commissioning.
Transmission mains Supply, laying, backfilling, testing and commissioning of 770m of OD 63mm and 1750m of OD 90mm HDPE PN20 with all the associated fittings	Transmission mains works were 100% finished.	Cases of major bursts were not reported / observed.
Distribution mains Supply, laying, backfilling, testing and commissioning of HDPE pipes all to PN10 with all the associated fittings 10km of distribution mains (1500m OD110mm, 2000m OD90mm, 2500m OD75mm, 4000m OD 63, all to PN10 HDPE).	Distribution mains works were 100% finished.	Cases of major bursts were not reported / observed.
Chlorine house Construction of chlorine house, supply and installation of dosatron equipment with all associated fittings.	Construction of the chlorine house and installation of the dosatron equipment were 100% complete.	The workmanship was good.
Reservoir tank Supply, installation and commissioning of a prefabricated hot pressed steel tank of capacity $100m^3$	A hot pressed steel tank of capacity $100m^3$ was installed on dwarf walls on Ibuje hill.	The quality of work was satisfactory

Planned Outputs	Status / Field findings	Remarks
on dwarf walls located on Ibuje hill.		
Water office Construction and equipping office block, including landscaping, and fencing the office area. Construction of one block water borne toilet at office premises.	The water office works were completed.	The quality of work was commendable.
Sanitation facilities Construction of seven ecosan toilets (five at household level and two at the pump stations). Construction of institutional toilet. (two blocks of five stances each). Construction of water borne public toilet.	All the seven ecosan toilets were constructed but were not yet in use pending commissioning. Two blocks of VIP drainable latrines (five stances each) were constructed in Ibuje P/S A water borne public toilet (four stances) was constructed at Ibuje main market.	The quality of work was good. The beneficiaries were knowledgeable on the use of the ecosan toilets. The structures were well constructed but the squat holes were small. The workmanship on the structure was good except the metallic cisterns which had rusted.
Service connections Construction of two public water kiosks. Construction of 200 private connections.	Construction of two public water kiosk structures was finished awaiting fitting of the taps. 204 private connections made in Ibuje. The beneficiaries interviewed were satisfied with the quality of water supplied as compared to their old sources. Additionally time taken to fetch water was reduced.	The quality of work was good.
Overall physical progress was: 99%	The works were substantially complete and the scheme was under test running within the DLP.	
Contract time elapsed was: 109%		

Source: Field findings and WSDF-N





L-R: Water Office in Ibuje town; a 100m^3 reservoir tank on Ibuje hill; a 21.3kVA generator at the pump station in Ibuje town

Implementation challenges

- Delayed implementation of the project due to;
    i) Design review changes e.g. the reservoir tank specification was changed from cold pressed to hot-pressed which had to be imported from the Uinted Kingdom.
    ii) Delays in issuance of instructions to the contractor by the consultant.
    iii) Land acquisition process for the pump stations.

Recommendations

i) The MWE should engage Consultants to review design before the construction contracts are awarded.
ii) The MWE should ensure that the Consultants/supervisors issue instructions in timely to contractors.
iii) The MWE/Local government authorities should plan and budget for land acquisition for water projects.

C) Construction of Patongo Town Council Piped Water Supply and Sanitation System

Patongo Town Council is located in Agago district. The WSDF-N contracted M/s Iliso Consulting (Pty) Limited (the consultant) to carry out design and construction supervision of the water supply and sanitation system which is estimated to serve 11,090 persons on completion and 30,466 persons by 20 years.

The construction works was awarded to M/s Palm Construction Ltd at a sum Ug shs 2,092,169,521 for a period of eight months, commencing on 15th January 2014 and ending 15th September 2014. Due to implementation delays caused by bad weather and land acquisition challenges among others, the contract period was extended by six months up to 30th March, 2015. The DLP for this project is 12 months.

The Scope of works involved: Pump station works, transmission and distribution main works, reservoir tank, grid power extension and connection, supply and installation of a generator, construction of chlorination unit, an office block, service connections and sanitation facilities.

Financial performance

By 31st December 2014, the consultant M/s ILISO Consulting (Pty) Ltd had received Ug shs 268,092,240 (75.4%) of the supervision cost while the contractor had received Ug shs 1,058,378,678 (50.59%) of the contract sum (Table 13.25).

Table 13.25: Financial performance of Patongo Town Council Piped Water Supply and Sanitation System by 31st December 2014 (Ug shs)

Payment Type	Amounts certified & paid	Date of payment
Advance Payment (recovered under certificates)	418,433,904	10th January, 2014
Certificate 1	266,013,763	13th March, 2014
Certificate 2	99,879,877	30th April, 2014
Certificate 3	214,529,328	13th June, 2014
Certificate 4	59,471,806	24th July, 2014
Total amount paid to the contractor	**1,058,378,678 (50.59%)**	

Source: WSDF-N

Physical performance

The scheme had attained 87% physical progress by 20th January 2015 (Table 13.26) and the contract was on schedule.

Table 13.26: Physical performance of Patongo Town Council Water Supply and Sanitation System by 20th January 2015

Planned Outputs	Status / Field findings	Remarks
Pump station works The system was designed to have two pump stations, each with the following: A pump house, generator house, guard house, ecosan toilet, landscaping and fencing of pump station area.	Pump station I: Works had not yet commenced, pending approval from the client and consultant. Pump station II: Finished works were: Construction of the pump house, generator house, ecosan toilet, fencing of pump station area, and the guard house was at roofing level.	The workmanship and the quality of construction materials were good.

Planned Outputs	Status / Field findings	Remarks
	Pending works were landscaping, fitting of the door, window and painting of guard house.	
Transmission mains Supply, laying, backfilling, testing and commissioning of 1800m of OD110mm and 1700m OD63mm HDPE PN16 Transmissions mains from sources 1 and 2 to Reservoir tank, with all the associated fittings.	70% of the transmission mains works were complete.	
Distribution main Supply, laying, backfilling, testing and commissioning of 17km of Distribution mains(2500m OD110mm, 2500m OD90mm, 4000m OD75mm, 8000m OD63, all to PN10 HDPE),	90% of distribution mains were complete. Pressure testing and commissioning were pending.	
Chlorination unit Construction of chlorine house, supply and installation of dosatron equipment with all associated fittings	Works on the chlorine house had not yet commenced.	The work was scheduled for a later date as per the contractors work programme.
Water office Construction and equipping of water office block, construction of one block water borne toilet, fencing, and landscaping.	Works at the water office was 95% complete. A block of four stances water borne toilet was constructed (two bathrooms & two toilets). Pending plumbing works on the toilet, placing septic tank covers, soak pit construction, furnishing water office, and landscaping.	
Reservoir tank Construction and installation of a 200m^3 steel tank on a 12m high steel tower.	Construction and installation of the reservoir tank was at foundation level and the steel works for the foundation base was completed.	The construction materials were of good quality.
Service connections Construction of four public	Construction of four water kiosks,	Functionality of the service

Planned Outputs	Status / Field findings	Remarks
kiosks and 600 private connections.	and 310 service lines were finished. Pending works were fitting of taps on the connections and completion of the remaining 290 private connections.	connections was awaiting water supply.
Sanitation facilities Construction of Institutional toilet.	Two block ecosan toilets each of four stances were constructed at Moo Dege P/S. Fitting of the vault chamber doors were ongoing. Pending works were: Guard rails, washroom for girls and painting.	The quality of work observed on the structure was good. The beneficiaries of the household ecosan toilet were grateful for the new facility. They were knowledgeable about ecosan toilet.
Construction of a water borne public toilet.	A water borne public toilet of eight stances was constructed in Patongo taxi park. Pending works were: Plumbing, construction of a soak pit, and completion of tiling.	
Construction of six household ecosan toilets.	Five household ecosan toilets had been constructed pending one more.	
Overall physical progress: 87%	The contract was on schedule	
Contract time elapsed: 85.7%		

Source: WSDF-N reports and Field findings

L-R: Water office; pump house & generator house; foundation steel works for reservoir tank all in Patongo Town Council



L-R: Public water kiosk in Patongo TC; Ecosan toilet in Moo Dege P/S; public water borne toilet in Patongo Taxi Park

Implementation challenges

1) Low response from communities to fulfill their obligations for private consumer connections.
2) Delay of works at the pump station due to;
   i) Land compensation issues on the prisons land.
   ii) Bad weather rendered construction sites inaccessible for over five months.
   iii) Change of specifications for institutional toilet as a result of collapsible and water logged formations.
   iv) Delayed issuing of instructions resulting from design review changes
3) Unreliable supply of both local and manufactured materials within the project area.

Recommendations

- The WSDF-N should mobilize and sensitize communities early enough on their roles and obligations.
- The MWE and local governments should plan and budget for land acquisition.
- The WSDF-N should ensure complete design review before contract award.

D) Construction of Opit RGC Piped Water Supply and Sanitation System

Opit RGC is located in Lakwana sub-county, Gulu district. Construction of the water supply and sanitation system is meant to increase provision of safe water supply and sanitation improvement in Lakwana and Lalogi sub-counties to an estimated 7,145 people over a 20 year design period. M/s ILISO Consulting (Pty) Ltd was contracted to undertake the supervision works.

The WSDF-N contracted M/s Scabs Technical Services Ltd was contracted at a sum of Ug shs 1,558,062,010 to undertake the construction works from 15th January 2014 to 15th September 2014. The contract period was extended by five months up to 15th February, 2015 due to delayed implementation resulting from land compensation issues. The DLP for this project is 12 months.

The scope of works consist of: Pump station works, transmission and distribution main works, reservoir tank, water office block, water kiosks, sanitation facilities and consumer connections.

Financial performance

By 31st December 2014, the contractor had received Ug shs 1,197,401,564 (76.85%) of the contract sum (Table 13.27).

Table 13.27: Financial performance of Opit RGC Piped Water Supply and Sanitation System by 31st December 2014 (Ug shs)

	1,465,998,820	
Payment Type	**Amounts certified & paid**	**Date of payment**
Advance Payment (recovered under certificates)	311,612,402	30th January, 2014
Certificate 1	371,367,306	4th June, 2014
Certificate 2	137,814,147	11th July, 2014
Certificate 3	71,057,888	3rd October, 2014
Certificate 4	40,616,820	20th November, 2014
Certificate 5	264,933,000	17th December, 2014
Total amount paid to the contractor	**1,197,401,563 (76.85%)**	

Source: WSDF- N

By 21st January 2015, overall physical progress was 87% against a time laps of 92.3%, hence the works were behind schedule. Table 13.28 provides details of physical performance.

Table 13.28: Physical performance of Opit RGC Water Supply and Sanitation System by 21st January, 2015

Planned Outputs	**Status / Field Findings**	**Remarks**
Pump station works: The following works were to be constructed at two pump stations. A pump house, generator house, guard house, ecosan toilet, landscaping and fencing.	Pump station I: Works had not yet commenced pending the decision of the consultant and client. Pump station II: The pump house and generator house were at roofing level. Pending works were: Guard house, ecosan toilet, landscaping and fencing.	The structures were constructed using good quality materials but the pace of work was slow.
Electromechanical works: Supply and installation of submersible water pump discharging $7m^3$/hr and		Awaiting completion of the

Planned Outputs	Status / Field Findings	Remarks
$5m^3$/hr at pump station I&II respectively. Supply and installation of a 30kVA generator. Grid power extension Supply of tools and equipment necessary for O&M of the system as provided in the Contract.	No works done.	pump stations.
Transmission main works Supply, lay, backfill, pressure test and commission 9km OD 75mm, 0.55km OD 63mm HDPE PN 16 and all associated fittings.	About 4km (45%) of transmission mains had been laid.	Works were ongoing.
Distribution main works Supply, lay, backfill, test and commission 1.1km OD 110mm, 1km OD 90mm, 1.1km OD 75mm, 1.4km OD 63mm HDPE PN 10 and all associated fittings.	100% completion of supply, laying and backfilling of distribution mains. Pending works were pressure testing and commissioning.	
Chlorine house Construction of chlorine house, supply and installation of dosatron equipment with all associated fittings.	Works had not yet commenced.	The works were scheduled for a later date as per the contractors work program.
Reservoir tank Supply, installation and commissioning of a prefabricated cold pressed water storage tank of capacity $100m^3$ on a 12m steel tower.	A $100m^3$ steel reservoir tank installed on a 12m steel tower. Pending installation of climbing ladder and leakage test.	The leakage test was awaiting completion of the transmission main and pump installation.
Water Office Construction and equipping office block, including landscaping, fencing and construction of one block water borne toilet.	Construction of water office building was complete. A 4-stance water borne toilet was constructed at office premises.	The chain link fence was weak and poor workmanship was exhibited.

Planned Outputs	Status / Field Findings	Remarks
	Works on chain link fencing was ongoing. Pending works were: supply of office furniture, and landscaping.	
Sanitation facilities Construction of seven ecosan toilets (five at household level and two at the pump stations).	The five household ecosan toilets were finished. Pending construction of two ecosan toilets for the pump stations.	
Construction of two blocks of institutional VIP latrines with five stances each.	Two blocks of drainable VIP latrines were constructed at Opit P/S.	Poor workmanship at the door frame finishes.
Construction of water borne public toilet.	A block of water borne public toilet (six stances) was constructed at Opit trading center. Pending works were: Installation of septic tank covers and completion of soak away pit.	The quality of work at the public toilet was good.
Service connections: Construction of two public water kiosks. Construction of 200 private connections.	Construction of the two public water kiosks complete. Service pipes had been laid for 102 private connections.	The water kiosks and private connections were not yet functional awaiting completion of pump station works.
Overall physical progress: 87%	The overall physical progress was behind schedule by a 5.3% laps.	
Overall contract time elapsed: 92.3%		

Source: WSDF-N and Field findings



L-R: Pump house and generator house; VIP latrine in Opit P/S; Water Office in Lakwana sub-county



L-R: Trenching transmission mains; 100m^3 reservoir tank; Household ecosan toilet all in Lakwana sub-county

Implementation challenges

- Low response from communities to fulfill their obligations (critical requirements for a service connection). This was compounded by a dependency syndrome created by the culture of provision of free services during the insurgency
- Late possession of the site at pump station II. A Delay of over four months was experienced due to land compensation issues.
- Unplanned settlement patterns made it difficult to lay service connections.

Recommendations

- The MWE/WSDF-N should ensure continued sensitization and awareness creation in communities, coupled by early mobilization and advocacy on their roles and obligations.
- Local governments should incorporate land acquisition in their budget.

- The physical planning department should guide infrastructural development in local government.

Analysis

Link between financial and physical performance

The financial performance was falling short of the physical performance. The overall average expenditure on the four projects (Ibuje, Patongo, Purongo and Opit) was 69.55% and yet the overall physical performance was rated at 92.25% by January 2015.

Achievement of set targets

Most of the set targets for Purongo and Ibuje water supply systems were achieved. The schemes were substantially complete, and functional. For Opit and Patongo water supply systems, some major components were complete while others were in progress and the contracts were on schedule.

Comparative analysis

The commencement date for all the four schemes monitored was 15th January 2014. By January 2015, Purongo had achieved 96% physical progress, Ibuje 99%, Patongo 87% and Opit 87%. All the four schemes were faced with one major challenge of land compensation issues. Despite this challenge, Patongo and Ibuje had performed very well and were already functional.

Conclusion

The project achieved its objective for the provision of safe water to Purongo and Ibuje community. There was consumption of good quality water from the two systems. The beneficiaries were satisfied the quality, quantity of water provided and the general proximity of the taps. Patongo and Opit water supply and sanitation systems had substantial progressed in works too. The major challenge to completion of works for various components in time was delay in land acquisition and compensation by the local council authorities.

Recommendation

- The WSDF-N should inform the beneficiary Local Authorities well in advance of the upcoming projects so that they can budget for land acquisition.

13.8 Project 1283: Water and Sanitation Development Facility-South West (WSDF-SW)

Background

The WSDF-SW was established in December 2012 as a funding mechanism of MWE, for water and sanitation investments in the RGCs and STs of 24 districts in south western part of Uganda. The expected completion date is December 2018.

The project was designed to achieve a significant contribution to the Millennium Development Goal (MDG) target of halving the proportion of the population without sustainable access to safe drinking water and basic sanitation. The project objective is: "*To support the achievement of improved health and socio economic living conditions of the target population"*.

It is funded by the GoU, Austria, and European Union Water Facility under the Joint Partnership Fund (JPF).

Key planned outputs for FY 2014/15

- Sanitation facilities constructed in 16 towns.
- National grid power extended in eight towns, solar installed in Nyakashaka RGC, and 10 standby generators installed.
- Construction of piped water supply systems in 25 RGCs commenced.
- Construction of piped water supply systems in 18 RGCs completed.
- Design of piped water systems in 31 RGCs completed.
- 21 RGCs followed up to fulfill their obligations and apply for construction of piped systems.
- 16 motorcycles for completed RGCs purchased.
- Back up support for towns under operation and maintenance provided.

The midyear monitoring focused on outputs 3 and 4 (commence construction in Kinoni, to complete construction in Lyantonde town and Rwenkobwa RGC).

Findings

Financial performance

The approved budget of WSDF-SW is Ug shs 18,364,000,000. By 31st December 2014, the release and expenditure performances were excellent by half year (Table 13.29).

Table 13.29: Financial performance of WSDF-SW by 31st December 2014 (Ug shs)

	Approved budget	Release	Expenditure
Dono.r	17,010,000,000 (92.63%)	10,854,500,000	11,735,450,000
GoU	1,354,000,000 (7.37%)	*1,589,284,667	1,274,410,000
Total	**18,364,000,000**	**12,443,784,667 (67.76%)**	**13,009,860,000 (104.55%)**

Source: WSDF-SW

***** *Over release by GoU as debt payment to the donor account*

Physical Performance

A) Construction of Rwenkobwa RGC Piped Water Supply System

Rwenkobwa RGC is located in Kijongo sub-county, Ibanda district. The safe water sources in Rwenkobwa are few, and coupled with frequent breakdowns, the communities rely on unsafe water sources from streams, ponds and swamps. The design and construction of the system is to improve the livelihoods of the beneficiary community. This was designed to serve an estimated population of 8,542 people on completion and 18,716 people by the year 2034.

M/s AWICO Engineering Company Ltd was contracted to undertake the construction works from 1st September 2014 to 1st March 2015 at a sum of Ug shs 1,822,072,563. The DLP for this project is six months.

Scope of works involved: Pump station works, supply, laying and backfilling of transmission and distribution mains including all associated fittings and chambers, installation of $120m^3$ reinforced concrete reservoir, installation of $24m^3$ plastic collection tank in a shelter, construction of the water office, sanitation facilities, and consumer service points.

Financial performance

The original contract sum of Ug shs 1,711,753,331 was revised upwards to Ug shs 1,822,072,563 in order to meet the increased demand in the trading centers of Akashushano, Aharibiri, Rwanyakabungo, and Rwambu.

By 31st December 2014, Ug shs 1,406,804,509 (77.21%) of the contract sum had been paid out to the contractor (Table14.30).

Table 13.30: Financial performance of Rwenkobwa RGC Piped Water Supply System by 31st December 2015 (Ug shs)

	Contract sum: 1,822,072,563	
Payment type	**Amounts certified & paid**	**Date of payment**
Certificate 1	419,833,674	17th September 2014
Certificate 2	272,509,689	10th October 2014
Certificate 3	172,092,905	30th October 2014
Certificate 4	542,368,241	22nd December 2014
Total amount paid to the contractor	**1,406,804,509 (77.21%)**	

Source: WSDF-SW

Physical performance

By 10th February 2015, all major works were complete and physical progress was at 98% (Table 13.31). However, the scheme was not functional pending pipe fittings to the main reservoir but the works were on schedule.

Table 13.31: Physical performance of Rwenkobwa RGC Piped Water Supply System by 10th February 2015

Planned output	Status / Field findings	Remarks
Pump station works Construction of a pump & generator house, construction of a guard house, fencing and landscape works.	Construction of the generator & pump house, the guard house with ecosan toilet, and fencing of pump area were finished. Landscaping was pending.	Good quality work was observed on these structures
Electromechanical works Installation of a 9m^3/hr pump and installation of the pump control units.	The pump and pump control units were supplied and installed. Anchoring of the pumping main was ongoing.	The pump was functional.
Supply and installation a 22 kVA generator.	The 22kVA generator was supplied and installed.	The generator was brand new and functional.
Extension of national grid power to the pump station.	National grid power was extended to the pump station.	The power was able to run the system.
Transmission mains Supply, laying and backfilling 2.15km of transmission mains, including installation of all associated fittings, and pressure testing.	Transmission main works were 100% finished.	The transmission mains were well laid.
Distribution mains Supply, laying and backfilling 8.4km of distribution mains and pressure testing. Installation of all associated fittings.	The distribution main works were 100% finished.	The distribution mains were well laid.
Reservoir tank Construction of reinforced concrete twin reservoir tank of capacity 120m^3, landscape and fencing of the tank area.	Construction of the 120m^3 concrete twin reservoir tank and fencing of the tank area were complete. Finishes on the splash apron and valve chambers were ongoing. Painting, landscape and connection of the tank to the	The workmanship was good and the construction materials on site were of good quality.

Planned output	Status / Field findings	Remarks
	distribution and transmission mains were pending.	
Construction of a shelter to house a $24m^3$ plastic reservoir tank. Supply and installation of a $24m^3$ plastic tank for Kashushano community.	Construction of the housing shelter was ongoing. The structure had reached ring beam level. Supply and installation of the plastic tank was pending.	
Water Office block Construction of the water office with inbuilt ecosan toilet, and supply of office furniture.	95% construction of the office block, supply of office furniture, and fencing of office area were finished. Painting of the office block was ongoing. Landscaping and power connection were pending.	The structural works were of good quality. The furniture supplied was of good quality.
Sanitation facilities Construction of water borne public toilet.	The water borne public toilet was complete, comprising six stances with a section for men and women constructed in Rwenkobwa trading centre. Landscaping, installation of rain fall collection gutters, septic tank covers, overhead water tank and plumbing works were yet to be done.	The contractor's workmanship was commendable.
Service connections Construction of five public water kiosks. Installation of 150 private consumer connections.	Construction of the five public water kiosks was finished. Installation of private consumer connections were 100% finished. The connections had increased to 164 due to increased demand.	The contractor's work was commendable. The beneficiaries were not yet receiving water pending completion of pipe connections and fittings at the twin reservoir tank.
Overall physical progress: 98%	The physical performance was excellent. The contract was on	

Planned output	Status / Field findings	Remarks
Contract time elapsed: 83.3%	schedule	

Source: WSDF-SW reports and Field findings

L-R: Anchoring of pumping main; 120m^3 twin reservoir tank both in Kijongo sub-county

L-R: Painting of the water office ongoing; Water office furniture in Kijongo sub-county

B) Construction of Kinoni RGC Piped Water Supply System

Kinoni RGC piped water supply system is located in Kinoni sub-county Kiruhura district. The community was using three borehole sources drilled by Kiruhura DLG and communal valley tank water whose quantity was not enough despite the poor quality. As a result Kinoni RGC piped water supply system was designed to serve an estimated population of 4,295 people on completion and 7,774 people by the year 2034.

The contract for construction works was awarded to Elmah Technologies Ltd at a sum of Ug shs 1,880,682,055 and the supervision works were undertaken by the project staff of WSDF-SW. The construction commenced on 4th September 2014 and was scheduled to end by 4th March 2015, with a DLP of six months after construction.

The scope of works were: pump station works, supply, laying and backfilling of the transmission and distribution mains, installation of a 65m^3 elevated steel reservoir tank, electromechanical works, construction of the office block, construction of sanitation facilities, construction and installation of service connections.

Financial performance

By 9th February 2015, one payment certificate amounting to Ug shs 540,762,805 (28.75%) of the contract sum had been paid to the contractor.

Physical performance

The overall physical progress of the system was estimated at 70% by 9th January 2015. Major ongoing works were at the pump stations, reservoir and public toilet. Table 13.32 presents details of achievements on various components of the water supply system.

Table 13.32: Physical progress of Kinoni RGC Piped Water Supply System by 9th January 2015

Planned output	Status / Field findings	Remarks
Pump station works Construction of two pump stations.		
Pump station 1: Construction of a pump /generator house, construction of a guard house with an attached ecosan toilet, fencing and landscape work.	Roofing and plastering of the pump/generator house were finished. Pending works were: painting pump/generator house, construction of guard house with ecosan toilet, landscaping and fencing of the pump station.	The quality of work was good at both pump stations.
Pump station 2: Construction of a pump /generator house, construction of a guard house with attached ecosan toilet, fencing and landscape work.	Roofing and plastering of the pump/generator house was finished. Construction of the guard house with ecosan toilet was ongoing. Landscaping and fencing of the pump station were pending.	
Electromechanical works Installation of two motorized pumps of capacity 3.5m^3/hr and 2.5m^3/hr at pump stations 1&2 respectively.	Pumps supply and installation were pending.	All electromechanical works were scheduled for a later date as per the contractors' work programe.
Supply and installation of	National grid power supply and	

Planned output	Status / Field findings	Remarks
national grid power to the pump stations, water office, and public toilets. Supply and installation of a 15kVA generator at each pump station.	installation was pending. Supply and installation of the 15kVA generators were pending completion of the generator houses.	
Transmission mains Supply, laying, backfilling and pressure testing 1.8km of the transmission mains.	About 90% of the transmission mains works were finished. Pressure testing was pending.	
Distribution mains Supply, laying, backfilling and pressure testing 6.1km of the distribution mains.	The distribution mains works were 100% finished.	The distribution mains were awaiting connection to the reservoir tank.
Reservoir tank Supply and installation of a $65m^3$ steel reservoir tank on a steel tower, fencing and landscape work.	The concrete foundation was finished. Pending works were: supply and installation of the tank, landscaping and fencing of the reservoir area.	The quality of concrete foundation work was good. The tank supplier was yet to deliver the tank plates and stands.
Water office block Construction of the water office with inbuilt ecosan toilet, including supply of office furniture. Fencing and landscaping the office area.	Construction of the office block with inbuilt ecosan toilet was finished. Tiling of the toilet steps was ongoing. Pending works were: landscaping, fencing office area and placing fascia boards.	The workmanship was good.
Sanitation facilities Construction of water borne public toilet.	The public water borne toilet (six stances) was roofed and plastered. Ongoing works were: construction of the splash apron,	The quality of work was good.

Planned output	Status / Field findings	Remarks
Construction of seven house hold ecosan toilets.	plumbing, fitting doors and excavation of the septic tank. The seven ecosan toilets were constructed. Finishing works were ongoing.	The quality of work was good and the beneficiaries were grateful for the new facility.
Service connections Construction of five public water kiosks	The five public water kiosks were constructed. Plumbing works, and soak away pits were pending.	The quality of work was good.
Construction and installation of 200 private water connections	96 people had applied and paid for private connections.	There was low turn up of the community demanding for private connections due to political interference.
Overall physical progress: 70%	The contract was behind schedule by 13.3% lag	
Overall contract time elapsed: 83.3%		

Source: WSDF-SW reports and Field findings

Left: Water borne public toilet; Center: Excavation of septic tank; Right: Water kiosk

Implementation challenges

- Work was temporarily disrupted during the rainy season in October and November rendering the roads to the various construction sites impassable.

- Low demand for the service connections due to political interference.

Case study of Mr. Adonia Kweyunga a beneficiary of an ecosan toilet in Kinoni RGC

Mr. Adonia Kweyunga who lives in Kinoni RGC is one of the beneficiaries of a household demonstration ecosan toilet provided by the Facility. He is also the Secretary to the Kinoni project implementation committee. The committee assists the WSDf-SW staff in mobilizing of the community.

Mr. Adonia was originally having a makeshift toilet which he had constructed on a mud hill (selfmade) due to the high water table in the area. The toilet was being used by his household and customers of his restaurant business.

He is very grateful for the new ecosan toilet and is also knowledgeable on how the ecosan toilet functions. He said the by-products from the ecosan toilet shall be used in his sugarcane plantation as manure.

L-R: Make shift pit latrine and new household ecosan toilet at Mr. Adonias' residence Kinoni trading centre

C) Improvement and Expansion of Lyantonde Town Council Piped Water Supply and Sanitation Scheme - Phase II

Lyantonde Town Council is located in Kabula county, Lyantonde district. The town is densely populated with a current population of 14,970 persons and scattered institution and household settlements. In 2002, the Small Towns Water Supply and Sanitation Project carried out Phase I of the rehabilitation works which comprised of: new intake that included a new pump house with a generator room fitted with pumps and generator, raw water pumping mains and a new treatment plant.

Owing to the high demand for water from the rapidly growing population, the existing scheme could no longer adequately serve the population. Hence WSDF-SW sought to expand the system under Phase II.

M/s Updeal (U) Ltd was awarded the contract for the expansion works (phase II) for a period of six months from 18th June 2014 to 18th December 2014 at a sum of Ug shs 1,926,187,361. The DLP was six months after construction. Scope of works: supply, laying and back filling transmission main, installation of a 250m^3 elevated cold pressed steel tank, and construction of an 8m^3 Break Pressure Tank (BPT).

Financial performance

By 31st December 2014, the contractor had been paid three certificates totaling to Ug shs 1,721,136,955 (89.3%) of the contract sum (Table 13.33)

Table 13.33: Financial progress of Lyantonde Town Council Piped Water Supply and Sanitation Scheme – Phase II by 31st December 2014 (Ug shs)

	1,926,187,361	
Payment type	**Amounts certified & paid**	**Date of payment**
Certificate 1	805,485,600	30th June 2014
Certificate 2	303,936,950	5th September 2014
Certificate 3	556,986,824	22nd December 2014
Total amount paid	**1,721,136,955**	

Source: WSDF-SW and Field findings

Physical performance

By 9th February 2015, physical works were 99% complete and the project was in the DLP. The Table 13.34 below provides details of the physical progress.

Table 13.34: Physical performance for Improvement and Expansion of Lyantonde Town Council Piped Water Supply and Sanitation Scheme - Phase II by 9th February, 2015

Planned output	**Status / Field findings**	**Remarks**
Transmission mains Supply, laying and backfilling of 14.3km transmission main pipe, including installation of all fittings and construction of valve chambers.	The transmission mains works were 100% finished.	One of the valve chambers had been demolished to rectify leakages.
Break Pressure Tank (BPT) Construction of 8m^3 BPT, fencing and landscaping.	Construction of the 8m^3 BPT tank and fencing of the tank area were 100% finished. Roughcasting of BPT and landscape works were pending.	Minor leakage was observed at the outlet pipe on the BPT.

Planned output	Status / Field findings	Remarks
Reservoir tank Supply and installation of 250m^3 cold pressed steel reservoir tank, 12m high. Fencing and landscaping reservoir land area.	Supply and installation of the 250m^3 cold pressed steel tank, and fencing of reservoir land area were finished. Landscape works, leakage testing and connection of the tank to the transmission and distribution mains were pending.	The tank was securely installed.
Overall physical progress: 99%	The works were substantially complete.	
Contract time elapsed: 100% of construction time, and 33.3% of DLP		

Source: Field findings / WSDF-SW

L-R: Leakage on 8m^3 BPT; 250m^3 reservoir tank in Lyantonde Town Council

Implementation challenges

- Delayed implementation due to change in design specifications of the reservoir tank by the supplier.
- Delayed release of funds by MWE to pay the contractor.

Recommendations

- Timely review of designs by the consultant and suppliers to minimize delays.
- Funds for certified works should be released in time for smooth running of works.

Analysis

Link between financial and physical performance

There was a fair link between the financial and physical performance as 65.08% of funds was used to implement 89% of physical work by midyear for the three schemes combined. The financial performance lagged behind physical performance as MWE delayed to release funds.

Achievement of set targets

The set targets for the construction works of the three schemes were achieved. Lyantonde and Rwenkobwa were substantially complete while Kinoni was in advance stages of implementation with construction of most components complete.

Comparative analysis

Lyantonde II rehabilitation works had excellent performance. Contruction of Rwenkobwa water supply system performed better than Kinoni despite the same contractual periods. The lag in Kinoni was attributed to heavy rains that rendered site roads impassable during October and November 2014. Release of the contractor's funds for Kinoni was not proportionate to physical progress of works.

Conclusion

The WSDF-SW performed well based in the physical progress of construction works of schemes monitored. The new reservoir tank for Lyantonde was twice the size of the existing tank and on a higher elevation to avail water to un served communities. The project implementation committee members in Kinoni and Rwenkobwa expressed gratitude with the new schemes. They believed the schemes would save them from the existing unsafe sources and moving long distances to obtain water in the dry season.

13.9 Vote Function 0903: Water for Production (WfP)

Background

Water for Production (WfP) refers to development and utilization of water resources for productive use in crop irrigation, livestock, aquaculture, rural industries and other commercial uses.[6]

The current institutional framework mandate in WfP facilities in Uganda is a shared responsibility between MWE and Ministry of Agriculture Animal Industry and Fisheries (MAAIF). The MWE is responsible for development of water sources and transmission (bulk transfer) through closed conduits or canals to farm gates while MAAIF develops primary distribution and tertiary networks for irrigation systems and other on-farm irrigation infrastructure and works and water use management.

The WfP department is undertaking several programmes to improve the livelihoods of the people in rural areas through increasing the storage volumes of water for production. The four

[6] PIP FY 2014/15 – FY 2016/17

major programmes are: Construction of dams and valley tanks, rehabilitation of old dams, construction of bulk water supply schemes, and rehabilitation/reconstruction of irrigation schemes.

The overall goal for the development of WfP sub-sector is: *"To promote development of cost-effective and sustainable water supply and water management for increased production and contribution to the modernization of the agricultural sector in Uganda with a focus on poverty reduction and minimal environmental impacts".*[7]

Planned outputs for FY 2014/15

- Construction of ongoing and new WfP facilities supervised and monitored.
- Sustainable WfP management systems established.
- Land for facility development and compensation of land owners acquired.
- Specialized construction machinery and equipment purchased.
- Bulk water supply schemes constructed.
- Water surface reservoirs constructed.

The midyear monitoring focused on construction of Nyakiharo GFS, Nalubembe, Kasikizi and Katiirwe valley tanks.

Findings

Financial performance

The WfP VF has an approved budget of Ug shs 31.97 billion. By 31st December 2014, Ug shs 12.22 billion (38.22%) was released, of which Ug shs 11.47 billion (93.86%) was spent. The release performance was very good while absorption capacity was excellent by half year.

Physical performance

a) Construction of Nyakiharo Gravity Flow System

Nyakiharo GFS is found in Ndorwa county, Kabale district. The system was constructed in the 1940's to serve St. Paul's Seminary Rushoroza and a few institutions on Rushoroza Hill. However, the system was later extended to serve additional institutions and communities of Rushoroza Cathedral, Kabale University, Ndorwa prison and the surrounding communities.

Due to increasing water demand coupled by the dilapidated state of the system, there was a chronic shortage of water. In 2013, M/s BEC Engineers was contracted to carry out the engineering design, for the rehabilitation of the system, prepare bid documents and supervise the reconstruction.

M/s Associated Design and Build Engineers Ltd was contracted to undertake the construction works for a period of six months from 15th July 2014 to 15th January 2015 at Ug shs 1,600,742,745. The contractor lost some substantial amount of contract time due to major

[7] Uganda Water Sector Strategic Investment Plan 2009

challenges encountered at the source. As a result, the contract period was extended by two months to 15th March, 2015.

The scope of works comprise of: Construction and protection of the intake, reconstruction of two $3m^3$ reinforced concrete collection boxes (sedimentation tank 1&2). Construction of one new $3m^3$ reinforced concrete collection box (sedimentation tank 3), fencing of the water source, dismantling the existing $36m^3$ hot pressed steel tank, supply and installation of $50m^3$ hot pressed steel tank on Rushoroza Hill on dwarf walls 1.5m high, construct $40m^3$ reinforced concrete reservoir tank along community transmission line. Supply, lay and backfill transmission and distribution mains. Supply and install 5,000litre steel tanks on 10m high steel tower at five institutions on Rushoroza Hill, supply and install bulk water meters for all the institutions.

Financial performance

The contract sum for the construction works was Ug shs 1,600,742,745. By 11th February 2015, the contractor had received Ug shs 982,389,951 (61.4%) of the contract value.

Physical performance

The overall physical progress of works by 11th February 2015 was 85%. Major ongoing works were at the source/intake, and reservoir tanks as detailed in Table 13.35 below.

Table 13.35: Physical progress of Nyakiharo GFS by 11th February 2015

Planned Outputs	Status/ Field findings	Remarks
Intake works Protection of the source, construction of a concrete retaining wall, and fencing the source area.	The intake works was estimated at 80% completion. Work on the retaining wall was ongoing. Pending works were source protection and fencing.	The quality of work in terms of materials on site and concrete works was satisfactory.
Collection boxes Rehabilitation of two collection boxes and construction of one new collection box each of capacity $3m^3$.	Rehabilitation and construction of the $3m^3$ collection boxes had not yet started	The works were awaiting completion of the intake works.
Transmission mains Supply and lay 2,780m of transmission mains of assorted pipe materials and sizes, including installation of all necessary fittings.	41% of the transmission mains works were finished. Pending works were completion of pipe laying, pressure testing, and construction of valve	

Planned Outputs	Status/ Field findings	Remarks
	chambers.	
Distribution mains Supply and lay 2,655m of distribution mains of assorted pipe materials and sizes, including installation of all necessary fittings.	94% of the distribution mains works were finished. The pending works were pressure testing and construction of valve chambers.	
Water reservoir tanks Dismantling the existing $36m^3$ reservoir tank on Rushoroza hill. Supply and installation of a $50m^3$ hot pressed steel tank on Rushoroza hill on 1.5m dwarf wall. Construction of $40m^3$ reinforced concrete reservoir tank along the community transmission line. Supply and installation of seven 5,000litre cold pressed steel tanks on 10m high steel towers for the seven institutions on Rushoroza Hill.	Dismantling the $36m^3$ existing tank was pending completion of the 50m3 new tank. The $50m^3$ tank was supplied and installed. Connection of the tank to the distribution and transmission mains was ongoing. Leakage test was pending. Placing of hardcore for the tank base was ongoing. Five tanks had been supplied and installed, pending two more.	The tank was properly assembled. However, water was not yet flowing thus not easy to verify the tank for leakages. Quality of construction materials was good. The tanks were not leaking.
Bulk meters Supply and install bulk water meters for all the intuitions.	0% had been achieved for this item, pending completion of the distribution main.	
Overall physical progress: 85%	The physical progress was excellent and the contract was on schedule	
Overall contract time elapsed: 87.5%		

Source: WfP reports and Field findings


L-R: 5m^3 institutional reservoir tank and 50m^3 main reservoir tank on Rushoroza Hill


L-R: Foundation works of 40m^3 concrete reservoir; Retention wall at intake on Rushoroza Hill

Implementation challenge

- Delayed implementation of works due to:
- Land wrangles where one of the springs anticipated to be protected is on private land.
- Difficult ground conditions (rocks) that were encountered at the source.

Recommendations

- Relocation of some structures e.g. the 40m^3 reservoir tank onto the diocese land.

b) Construction of Nalubembe Valley Tank (VT)

The VT is located in Kibuku sub-county, Kibuku district. The tank was designed by NEWPLAN Uganda Ltd in 2009, with a capacity of 10,000m^3. The tank is expected to meet the water demand of the benefiting communities for at least four months during the dry spells.

The contract for the construction works was awarded to M/s Kiba Construction Ltd. The construction commencement date was 3rd April 2014 and the end date was 2nd December 2014

at a sum of Ug shs 546,950,619. The contractor was supervised by the staff of MWE from the WfP department.

Scope of works: Excavation and trimming of the main reservoir tank and sedimentation tank; construction of the inlet and overflow (spillway) channels, water diversion bunds around the VT reservoir, water abstraction facilities (floating intake pump), the pump house, livestock watering troughs, a sanitation facility; and installation of the pump control units; fencing and planting of grass.

Financial performance

The contract sum for the construction works was Ug shs 546,950,619. By 27th January 2015, the contractor had been paid one certificate amounting to Ug shs 421,739,065 (77.10%) of the contract sum. The payment was made on 17th June 2014.

Physical performance

By 27th January 2015, all planned activities under the scope of works were 100% complete, and the valley tank was functional. The water was being utilized for both domestic and animal needs. Four cattle troughs were constructed. The works were in the DLP.

A pump was installed in the tank and was operated by solar energy. The dam was secured with a chain link fence and a gate. A one block-four stance drainable VIP latrine (with male and female sections) was constructed.

One of the contractor's staff was on site to manage the day to day operations of the tank. The water is pumped from the valley tank by use of a suspended pump, operated by solar energy. The water is sent in to two overhead crest tanks from which it's then delivered to the troughs by gravity.



L-R: Pump station & solar array; Functional cattle trough; Public ecosan toilet in Kibuku sub-county

c) Construction of Kasikizi Valley Tank

The VT is located in Ruyonza sub-county, Kyegegwa district. The tank was designed by NEWPLAN Uganda Ltd in 2009, with a capacity of 10,000m^3. The tank is expected to meet

the water demand of the benefiting communities for at least four months during the dry spells. The contract for the construction works was awarded to M/s Global International Services Ltd from 3rd April 2014 to 2nd December 2014 at a sum of Ug shs 610,227,552. Supervision was done by the WfP staff from the MWE.

Scope of works: Excavation and trimming of the main reservoir tank and sedimentation tank; construction of the inlet and overflow (spillway) channels, water diversion bunds around the VT reservoir, water abstraction facilities (floating intake pump), the pump house, livestock watering troughs, a sanitation facility; and installation of the pump control units; fencing and planting of grass.

Financial performance

The Table 13.36 below shows the details for each payment certificate. Ug shs 81,325,913 (13%) of the contract sum was held as retention.

Table 13.36: Financial performance of Kasikizi Valley Tank by 18th February 2015 (Ug shs)

	Contract sum: 610,227,552	
Payment type	**Amounts certified & paid**	**Date of payment**
Certificate 1	452,275,375.5	17th June 2014
Certificate 2	47,131528	14th November 2014
Certificate 3	29,494,736	16th February 2015
Total amount paid to the contractor	**528,901,639.50 (87%)**	

Source: WfP

Physical performance

By 18th February 2015, all planned activities under the scope of works were 100% complete and the project was in the DLP. The water was being utilized for both domestic and animal needs. The community was grateful about the dam as they could have water during the dry season.

The four cattle troughs were constructed. The water is pumped from the valley tank by use of a suspended pump which was operated by solar energy. The water is then sent into two overhead plastic crest tanks and then into the troughs and service tap. The dam was secured with a chain link fence and a gate. A one block-four stance drainable VIP latrine (with for male and female section) was also constructed.

A local management committee was in place to undertake the day to day operations of the tank which was under the DLP.

L-R: Reservoir tanks; Public water stand post; Cattle trough in Ruyonza sub-county

d) Construction of Katiirwe Valley Tank

The VT is located in Ruyonza sub-county, Kyegegwa district. The tank was designed by NEWPLAN Uganda Ltd in 2009, with a capacity of 10,000m^3. The tank is expected to meet the water demand of the benefiting communities for at least four months during the dry spells.

M/s Global International Services Ltd was awarded the contract for the construction works from 3rd April 2014 to 2nd December 2014. The supervision works was done by the WfP staff from the MWE.

Scope of works: Excavation and trimming of the main reservoir tank and sedimentation tank; construction of the inlet and overflow (spillway) channels, water diversion bunds around the VT reservoir, water abstraction facilities (floating intake pump), the pump house, livestock watering troughs, a sanitation facility; and installation of the pump control units; fencing and planting of grass.

Financial performance

The contract sum for the construction works was Ug shs 551,810,599 of which Ug shs 519,503,033 (94%) had been paid out to the contractor. The remaining 6% is held as retention money. Table 13.37 shows details of payments.

Table 13.37: Financial performance of Katiirwe Valley Tank by 18th February 2015 (Ug shs)

	551,810,599	
Payment type	**Amounts certified & paid**	**Date of payment**
Certificate 1	442,077,836	17th June 2014
Certificate 2	48,422,922	14th November 2014
Certificate 3	29,002,275	16th February 2015
Total amount paid	**519,503,033 (94%)**	

Source: WfP

Physical performance

By 18th February 2015, all planned activities under the scope of works were 100% complete, the tank was functional and under the DLP. The water was being utilized for both domestic and animal needs and the community was very happy with the dam which provides them water during the dry spells. Four cattle troughs were constructed.

The water is pumped using a suspended pump which is operated by solar energy. A communal public stand post was constructed. The dam was secured with a chain link fence and a gate. A one block-four stance drainable VIP latrine (with for male and female section) was constructed.

A local management committee comprising of 10 members, three of whom are women was formed to manage the day to day operations of the valley tank. The committee members interviewed were aware of their roles and responsibilities.

L-R: Pump house & Valley Tank; Public VIP latrine; Public water stand post in Ruyonza sub-county

Analysis

Link between financial and physical performance

By February 2015, the link between financial and physical performance was fair. About 79.8% of funds was utilized to achieve a physical progress of 96.25% of all works combined.

Achievement of set targets

The set targets for all the three VTs were achieved (100% completion). The planned completion of Nyakiharo GFS, was not achieved due to unfavorable rocky ground conditions at the source. Thus the contract period was extended to 15th March 2015.

Comparative analysis

The performance of the VTs was excellent compared to Nyakiharao GFS which had not attained 100% completion within the initial scheduled contract period.

Conclusion

The WfP sub-sector achieved the objective of provision of water for production purposes for the three VTs. The water storage capacity was increased by 30,000m^3 through completion of Nalubembe, Kasikizi and Katiirwe VTs. The communities appreciated the VTs as alternatives sources for the dry season. Despite delays due to rocky ground conditions, Nyakiharo GFS works were of good quality.

Vote Function: 0905 Natural Resources Management

13.9 Kalagala Offset Sustainable Management Plan

Background

The purpose of Kalagala Sustainable Management Plans (KSMPs) is to provide measures for ensuring sound environmental management of the Mabira ecosystem housing Kalagala and Itanda Falls of "counter balancing or making up for" some of the negative impacts caused by Bujagala dam on the environment. The GoU is committed to sustainable development through mitigating against negative environmental impacts of Bujagali Hydro-Power-HPP. This provides a planning framework for guiding long term sustainable development actions in Mabira Ecosystem.

The district Local governments of Jinja, Buikwe and Kayunga are to plan and budget for the Kalagala action plan. In the mid-year monitoring Kayunga local Government was monitored since it is the one that had received money for implementation in the FY 2014/15. Buikwe had follow up activities for the last FY while Jinja had only done start up activities including mobilization and sensitization meetings.

Findings

Financial performance

The approved budget for Kalagala project for FY 2014/15 is for Ug shs 228,534,583. A total of Ug shs 89,030,332 (50%) of the budget was released by Q2 and Ug shs 44,762,332 (50.2%) spent which is an excellent release and poor expenditure performance. The poor absorption performance was attributed to the long time taken to process funds in the department.

Physical performance

The Table 13.38 shows the physical performance of KSMPs. Some money released in Q2 could not be accessed by the department in the same quarter thus leading to postponement of the activities to the next quarter (Q3).

Table 13.38: Physical performance of KSMPs by end of December 2014

Planned Activity/output	Release by Q2	Remarks
Status of Mabira CFR boundaries assessed for demarcation.		Activity not done
Restoration of degraded and protection of ecosystems (Mobilization and sensitization of communities and R. Nile	16,340,000	Activity done

Planned Activity/output	Release by Q2	Remarks
boundary assessment in Wakisi sub-county)		
20 Ha of the degraded section of River Nile protection zone restored (demarcation of Riverbanks in Wakisi)	29,268,000	Release made in Q3 to the department
Restoration of degraded and protection of ecosystems (Mobilization and sensitization of communities and R. Nile boundary assessment in Njeru sub-county)	16,070,000	Activity done
Restoration of degraded and protection of ecosystems (demarcation of R. Nile protection zone in Njeru)	25,380,000	Funds not released to department
40 community groups supported to plant 40 Ha of trees in the R.Nile catchments	24,000,000	Activity done
Restoration of degraded and protection of ecosystems (Stakeholder analysis for rangeland management plan in Luwero)	10,000,000	Funds not released to the department
Restoration of degraded and protection of ecosystems(Districts of Kayunga, Jinja and Buikwe supported to prepare 4 catchment restoration plans)	15,000,000	Release made in Q3 to the department
Fuel for coordination, monitoring, supervision, technical backstopping	16,250,000	Activity done
Administration (telephone) (Newspapers) (stationery, computer supplies and small office equipment)	7,482,332	Procurement done centrally by the Ministry.

Source: DESS

Challenges

- Delayed release of funds per quarter. Some requests made in the first quarter were paid in the second or third quarter. This affected tracking of activities implemented and generally status of implementation in the local governments.
- Procurement is done as planned. Sometimes procurements absorb the money for other activities thus forfeiting them.
- Releasing inadequate funds for an activity, leading to failure to implement some activities.

Recommendation

Timely release of funds according to planned activities.

Kayunga district Local Government

The district receives money from central government under PAF to carry out the environment and wetlands activities.

Financial Performance

The approved budget for the environment and wetlands in the FY 2014/15 is Ug shs 7,200,000 of which Ug shs 3,210,000 (44.6%) had been released and spent by December 2014. This was an excellent release and 1expenditure performance at midyear (Table 14.39).

Physical Performance

The Table 13.40 shows the detailed physical performance of Natural Resources in Kayunga district.

Table 13.40: Physical Performance Environment and Wetlands in Kayunga DLG by February 2015

	Planned Activity	**Out puts/ location**	**Implementers**	**Amount 000" Ug shs**	**Comments**
Q1	Demarcation of river Nile banks	15 Km demarcated in Kangulumira along banks of river Nile	MWE/DLG	MWE-budget	Appx-15 Km were demarcated with pillars along the banks of the Nile
	Restoration of Kantenga wetland-Musamya Wetland system	Part of the wetland restored from rice growers	DLG	Nil - Routine activity	Wetland currently restored in its original state
	Tree planting – Nazigo Local Forest Reserve	3000 Eucalyptus camaldulensis	DLG	642	70% surviving
	Community training in wetlands mgt and monitoring of wetlands resources	Trained 200 locals in wetlands management and use in Bbaale, Kitimbwa and Busana	DLG	963	Improved wetlands resources management and use
Q2	Demarcation of second portion of river Nile banks	5 Km demarcated in Kangulumira along banks of river Nile in Mirembe, Bukasa, Namakandwa	MWE/ DLG	1000	5 Km demarcated with pillars along the banks of the Nile

Area tree cover in ha planted and surviving	3 ha of trees planted in Nazigo LFR	DLG	530	3,000 eucalyptus grandis species planted -85% surviving

Source: Kayunga district and field findings

Planted eucalyptus tree during Q1 and marking stones for forest reserve (short) and water-point at highest inclination level (tall)

Challenges

i) The sector receives limited funds that cannot facilitate effective activity implementation as planned. This affects the planned target performance and results into constant gaps in activity implementation and service delivery.

ii) The local resource users are at times resistant to wards implementation of planned activities such as restorations, demarcations. They among others claim that the technical team and government intend to grab land from them in bid to manage vital ecological resources for example in Musamya wetland System.

Recommendations

i) Increase the funding for planned activities such that planned out puts can be achieved in a specified period of time.
ii) Massive sensitization to local resource users to improve on resource use and planning to achieve sustainable management of the available resources.

Analysis

Link between financial and physical performance

There was a fair link between the financial performance and the physical performance.

Achievement of set targets

The set targets for KSMPS were partially achieved. The limited release of funds affected implementation of planned outputs. Only five out of the planned ten outputs were implemented.

Conclusion

The KSMPS did not achieve most of its targets due to poor financial flows. However, there was continuous demarcation of the Nile banks with pillars, eucalyptus grandis species planting and restoration of wetlands in Kayunga but the activities were slow in Buikwe and Jinja. The release of funds took too long to get to the implementing department thus affecting the whole implementation of the project.

Vote Function 0904: Water Resources Management (WRM)

The WRM sub-sector is responsible for the integrated and sustainable management of water resources in Uganda so as to secure and provide water of adequate quantity and quality for all social and economic needs for the present and future generations.

The mission of WRM sub-sector is: *"Effective management of the water resources to guarantee the availability of water to meet all social, economic development and environmental needs of the present and future generations".*[8]

Water resources management typically comprises three main groups of functions namely:

i) Monitoring, Assessment and Information Services
ii) Planning and Regulation
iii) Advice and Facilitation (technical/organisational/financial).

Project 0165: Support to Water Resources Management

The overall development objective of the project is improved regulation of water abstraction, pollution monitoring, and assessment of the water resources, water quality analysis and monitoring network upgraded and operated in an integrated and sustainable manner. The project was commenced in July 2003 and is expected to end by June 2017.

Key planned outputs/activities in FY 2014/15

- Operate and maintain121 surface water monitoring stations.
- Construct 20 new surface telemetric monitoring stations.
- Construct 36 ground water monitoring stations.
- Construct 17 new automated stations.
- Assess and issue 120 new water permits applications.

[8] Uganda Water Sector Strategic Investment Plan 2009

- Compliance monitoring and enforcement of water permit conditions undertaken for 360 permit holders.

Findings

13.10 Construction of Jinja Pier Hydrological Monitoring Station

Background

The Water Resources Monitoring and Assessment Department is upgrading a number of monitoring stations to telemetry status-where the data is transmitted from the station to the base station in Entebbe via Global System for Mobile communication (GSM).

The major objective is to construct a structure for the telemetry hydrological station to guide quick decision making in the face of the growing uncertainty of extreme events of floods. The data collected would act as an early warning system to minimize the impact of natural events on the people and their property. The station is part of L. Victoria basin that has been faced with regular floods thus the need to develop a floods management strategy.

The scope of works: stilling wells with associated intake pipes, protective house for equipment, installation of fully operational water level data capturing and transmission equipment.

By Q2 FY 2014/15 three stations were specifically were planned (River Kapir at Awoja, River Mpologoma at Budumba and Lake Victoria at Jinja Pier). By end of December 2014 only Jinja pier was completed in this lot and the station was monitored in February 2015.

Financial performance

The approved budget for the three telemetric stations is Ug shs 58m for construction of the structures. Civil works were awarded to UpDeal (U) Ltd for the 3 stations. The donor GIZ contributed 75% and GoU 25%). Formerly the project was funded by GIZ from 2012 to June 2014. By Q2 all the money from the GIZ component had been received and utilized by end of December 2014. The remaining money (6m) will be gotten from the GoU for the installation of equipment for the three stations.

Physical Performance for Jinja pier

The civil works were carried out by the staff of the directorate. The structure comprises of the stilling well system with its associated intake piping system and protective housetop.

The finished civil works involved putting up the structure which is the protection/transmission house. This reduces the sensitivity of the equipment as it is sheltered under room temperature. The stilling well below the house gives the actual levels of the lake was installed. Remaining works are connecting to power and the base station in Entebbe.

Completed protective house

Installed equipment

Analysis

Link between financial and physical performance

There was a good link between the financial performance and the physical performance.

Achievement of set targets

The set targets were partially achieved. The civil works were complete and installation of grid and connection to the center awaited the GoU to remit the remaining money.

Conclusion

The project achieved to the level of funds received (90%). The donor funding period expired before project. Remaining works included installation of power and connecting to Entebbe (base). This will be funded by the GoU. The major challenge of the project was funding.

Recommendation

The GoU should expedite its financial commitment for project completion.

GENERAL CONCLUSIONS

The overall conclusions are derived from the field findings and analysis in the previous chapters.
The overall sector performance was rated as very good. Performance of projects varied in RWSS, UWSS, WRM and WfP es while those under NRM and DWSDCG performed poorly.

Excellent performance under the UWSS was demonstrated in the water supply systems like Purongo, Ibuje, Ochero, Kachumbala which were completed and functional; Rwenkobwa and Lyantonde were substantially complete and within the expected contract timelines. The Kasikizi, Katiirwe and Nalubembe valley tanks (WfP) were completed within the expected time, remaining with retentions for the defects liabilities.

Land compensation challenges delayed the implementation of the Lirima Gravity Flow Scheme (GFS) under RWSS, making it perform fairly. The project was behind the scheduled completion date.

The poor performance in the District Local Governments under DWSDCG was attributed to delayed procurement processes. In the 10 districts monitored, a good number of outputs in software were achieved, but only four had started hardware implementation.

Progress of works was hampered by reintroduction of VAT on contracts which was raising cost of implementation and heavy rains.

RECOMMENDATIONS

Implementation of programmes can be improved if corrective measures are taken by the various MDAs. The key recommendations are.

- The MWE and local governments should plan and expedite land compensation early enough to minimize time loss.
- The MFPED should harmonize releases with quarterly work plans.
- The District Local Governments should adhere to procurement timelines.

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