



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 25-Jan-2018 | Report No: PIDISDSC21866



BASIC INFORMATION

A. Basic Project Data

Country Uganda	Project ID P163782	Parent Project ID (if any)	Project Name Integrated Water Management and Development Project (P163782)
Region AFRICA	Estimated Appraisal Date Mar 20, 2018	Estimated Board Date May 31, 2018	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance, Planning and Economic Development, Uganda	Implementing Agency National Water And Sewerage Corporation	

Proposed Development Objective(s)

The project development objective (PDO) is to improve (i) access to water supply and sanitation services and (ii) integrated water resources, planning, and management.

Financing (in USD Million)

Financing Source	Amount
Borrower	8.00
International Development Association (IDA)	250.00
IDA Grant	25.00
GERMANY: KREDITANSTALT FUR WIEDERAUFBAU (KFW)	25.00
Total Project Cost	308.00

Environmental Assessment Category A-Full Assessment	Concept Review Decision Track II-The review did authorize the preparation to continue
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Other Decision (as needed)



B. Introduction and Context

Country Context

Uganda, a low-income country of 39.3 million people (2015), has made significant progress in economic growth and poverty reduction over the last 30 years. Following policy reforms that allowed market liberalization and led to political stability, Uganda registered high economic growth between 1987 and 2010, with Gross Domestic Product (GDP) averaging 5.1 percent in the last five years¹. The structure of the Ugandan economy has also undergone a major transformation during the same period, with a notable shift from a primarily agriculture-based economy to one dominated by services and industry. In 2015, the service sector registered the largest contribution to GDP (52.8 percent), followed by agriculture (25.8 percent) and industry (21.4 percent), respectively². Uganda has achieved remarkable results in poverty reduction, cutting extreme poverty by half, the second fastest reduction in extreme poverty per year in Sub-Saharan Africa. Between 1993 and 2006, poverty fell by 1.9 percent per annum and has continued to fall at an average rate of 1.6 percent per annum ever since³. Despite its economic growth, over a third of the population (34.6 percent) still live below the international poverty line of \$1.90 per day in 2012).⁴ The north-eastern region stands out as one of the most disadvantaged parts of the country with 43 percent of the residents living on less than one dollar a day and where 84 percent of the country's poor live. The main poverty challenges in rural areas are food insecurity, low agricultural productivity, a degrading natural resource base, and low access to basic infrastructure and services. In urban areas, the primary challenges are inadequate planning for rapid growth and low investment in infrastructure and services.

Rapid urbanization and increasing inequality between regions and between rural and urban areas pose a daunting challenge to Uganda and underscore the need to improve access to basic services. Uganda's population growth of over three percent per year is one of the highest in the world, and puts a considerable strain on public services. The urban population has increased from 12 percent in 2000 to 16 percent in 2015, compelling the government to act promptly to address the effects of rapid urbanization. Several urban small towns have emerged around the country, exerting more pressure as demand for basic services continue to escalate. Meanwhile, about 84 percent of the total population reside in rural areas where access to adequate water and sanitation services are significantly lagging, particularly in the northern and eastern parts of the country where poverty incidence is highest. Furthermore, the influx of more than 1.3 million refugees, from South Sudan but also from the Democratic Republic of Congo (DRC) and Burundi, settling mostly in the northern region has significantly increased the pressure on the already strained land, water resources and basic services.⁵

Per recent United Nations High Commissioner for Refugees (UNHCR) data, refugees make up about 29 percent of the host population in some districts, with numbers in Moyo and Adjumani districts exceeding 55 and 58 percent respectively⁶. The northern region is the least developed in Uganda and still in early stages of recuperating from a protracted civil conflict. Uganda has a progressive refugee policy framework that entitles refugees to work, to freedom of movement, and to access Ugandan social and public services, including access to water and sanitation services. This adds an additional layer of complexity to host communities which are, mostly poor small towns and rural areas, suffering from inadequate infrastructure, limited social capital, low productivity and environmental degradation due to poor climatic and soil conditions including overuse. The Government of Uganda (GoU) faces a tremendous challenge to serve these poor and vulnerable communities while trying to keep up with the rapid urbanization and economic growth of other regions.

¹ World Bank Data: Uganda Economic Overview (2017)

² World Development Indicators (2015)

³ Uganda Poverty Assessment Report (2013): Ugandan poverty line USD 0.94 and 1.07 per day depending on the region and area).

⁴ Based on 2011 Purchasing Power Parity

⁵ West Nile Region in the western part of northern Uganda is where most of the refugees are located.

⁶ UNHCR data as at August 2017



B. Sectoral and Institutional Context

Since the early 1990's, Uganda has made significant strides to build a comprehensive legal and well defined institutional framework to improve water supply and sanitation and water resources management. The Ministry of Water and Environment (MWE) is responsible for determining priorities, setting policies and standards for water development as well as managing and regulating water resources including water and sanitation services.⁷ The National Water and Sewerage Corporation (NWSC), an autonomous public utility owned by the Government under the MWE, is responsible for WSS provision in 30 large and 170 small towns.⁸ Local authorities supported by the MWE are responsible for provision of water and sanitation services in small towns and rural areas through direct provision, community-based organizations, or private companies. Significant policy reforms included the commercialization and modernization of the NWSC, decentralization and private sector participation in small towns, adoption of integrated water resource management (IWRM) principles in national policies, and creation of four Water Management Zones (WMZ). These reforms, coupled with significant capital investments have led Uganda to remarkable improvements in water supply service provision, especially in urban areas where coverage increased from 43 percent in 1990 to 77 percent in 2017, and have contributed to the existing capacity and professionalism of Uganda's water institutions.

Despite considerable progress in the water sector, challenges remain to improve water and sanitation delivery in small towns and rural areas, as well as to ensure water security and adequate sanitation in large urban centers. National water supply coverage of 77 percent in urban areas and 67 percent in rural areas mask service quality disparities between urban and small towns/rural areas. Except in Kampala and a few regional towns with piped water systems, most of the water supply is in the form of community point water sources.⁹ In urban areas, 48 percent of households use piped water but that percentage falls to 33 percent in small towns and to nine percent in rural areas. Despite an acceptable level of functionality (80 percent in rural and small towns), a significant number of households still travel long distance to fetch water reducing their human capital opportunities. In large towns, sustaining expanded coverage and service improvements, while ensuring water security to support economic growth is one of the main challenges given insufficient public investments, technical difficulties to reach the most vulnerable as well as increasing climate variability. Per the United Nations Joint Monitoring Program (JMP) only 29 and 17 percent of the urban and rural population respectively have access to individual improved sanitation facilities. Sewerage coverage is very low, less than 7 percent for large towns and next to negligible in small towns. The low sanitation coverage indicates poor on site sanitation conditions from unlined public and household toilets and inadequate wastewater treatment and fecal sludge management causing severe water pollution and related environment and public health issues.

In response to these challenges, the Government has developed programs and policies focused on improving WSS services in poor small towns and rural areas. Since the early 2000s, the GoU has supported the introduction of private operators to manage piped water systems in small towns through management contracts with local governments (town councils). Despite some successes with the private delivery model, scaling up has been difficult mainly because of (i) high investment needs due to significant infrastructure backlogs, (ii) difficulties attracting private operators to work in poor and challenging districts coupled with unattractive contract conditions (i.e. short contract duration and fixed price structures), and (iii) weak regulatory measures to monitor and evaluate performance. Based on these challenges, the GoU has resolved to cluster service delivery provision by transferring operation and maintenance (O&M) to NWSC and

⁷ Other relevant ministries include, the Ministry of Education and Sports (MoES) which is responsible for hygiene education and provision of sanitation facilities in schools; the Ministry of Agriculture, Animal industry and Fisheries (MAAIF) which is responsible for on-farm water use; and the Ministry of Health (MoH) which is responsible for hygiene and sanitation promotion for households through the Environmental Health Division (EHD). However, EHD has limited capacity hence MWE is taking the lead in providing financing for hygiene and sanitation promotion.

⁸ Large towns are identified as areas with a population greater than 15,000; small towns are between 5,000-15,000 inhabitants; and rural areas are lower than 5,000 inhabitants.

⁹ Community point sources include protected springs, deep and shallow wells fitted with hand pumps. Piped water systems comprise a water source (spring, surface or borehole), storage tank and pipe distribution network with standpipes or household connections.



Umbrella Organizations (UOs)¹⁰. NWSC's strong utility performance has allowed it to absorb about 170 small towns while maintaining financial viability.¹¹ The small towns managed by NWSC have experienced marked improvement in revenue collection, network expansion and service quality. The UOs currently operate as regional support organizations providing back-up O&M support, training, and works supervision to small town service providers. Due to the high number of small towns and scattered geographical location, the GoU is proposing to transfer management of water and sanitation services to UOs. The MWE has started modeling this approach in 74 towns with one UO managing ten small towns. In rural, the GoU has launched a comprehensive rural water supply program with the aim of increasing access to safely managed drinking water service through solar technology, community involvement and establishment of viable O&M models.

In larger towns, the GoU is focusing on water and sanitation infrastructure investments to boost economic growth and water security in the north and east districts. The Government is prioritizing Gulu and Mbale given their contributions to the country's economy and unmet demands. Gulu, the economic capital of the northern region is experiencing high population growth averaging 5.2 percent per year¹², with at least 70 percent of the population living below the poverty line. The town lies in the Upper Nile WMZ which is susceptible to dry spells often plunging the town into severe water shortages. Moreover, water supply coverage is extremely limited in the town, with piped water reported to be only four percent. The water supply situation is largely due to the absence of infrastructure development stemming from two decades of civil unrest. Since 2006, GoU is committed to revitalizing the north to enable the region to catch up with the rest of the country. The proposed project will support GoU's commitments to the north by augmenting water from the Nile to help meet Gulu's long term demand. Further to the east, Mbale a largely coffee producing district is dubbed the business hub of eastern Uganda due to its proximity to Kenya which allows for easier trade. Economic opportunity has spurred migration, which in turn has triggered rapid population growth and a mushrooming of new settlements that is stretching the capacity of service providers to deliver. By improving water supply and sanitation services in the town, the Project aims to uncover the town's economic potential.

While water resources support key sectors of the economy, namely hydropower generation, agriculture, fisheries, domestic water supply, industry, and navigation, the efficiency and sustainability of intervention under these sectors have recently been a concern in Uganda. This is mainly due to inadequate sectoral collaboration in planning and implementation, increasing frequency of floods and droughts, rapid population growth, environmental degradation and pollution of water resources leading to increased risks and vulnerability of Uganda's hydrological systems. Currently, surface water is depleting with over 50 percent of districts already facing water stress and scarcity. In addition, synergies are needed among various sectors to promote efficient use of water resources to meet various social and economic demands. This situation, if not adequately addressed will affect Uganda's push to a middle-income status, achievement of the SDG targets and Vision 2040.

Furthermore, while Uganda's per capita fresh water resource is among the richest in the world, lack of infrastructure, climate variability, and environmental degradation hampers the country's ability to adequately meet competing water demands. According to the National Water Resources Assessment (2013), only 2.8 percent of the internal renewable water resources is utilized. This therefore calls for strengthening the integrated planning, development and management of water and related resources. To that end, the MWE has adopted a catchment management approach for natural resources planning and development with multiple stakeholder involvement. The MWE led the preparation of four Catchment Management Plans (CMPs) in two of the four WMZs, and is working on implementing their action plans, including water source protection to ensure adequate quantity and quality of water for meeting the various demands

¹⁰ Umbrella Organizations are regional membership associations of the local water supply and sanitation (WSSBs) and small community managed systems

¹¹ The financial assessment of NWSC done for the year 2014/2015 indicates that the company as a whole registered a profit before tax of UGX9.1 billion and a Collection to Billings Ratio of 105 percent which shows that the utility is financially viable.

¹² NWSC 2014/5 Gulu Report



including domestic water supply. Furthermore, the MWE is strengthening its data collection and analysis capabilities to ensure that decision making is based on scientific analysis, informs investments and water resources related policies. Thus, GoU has initiated several interventions based on the framework for catchment based IWRM that is aimed at strengthening water resources management and development that need to be consolidated and fully implemented across the country. This will be key in ensuring water security and sustainability of the rural and urban water supply and sanitation infrastructure among others.

The World Bank is supporting the development of water supply and sanitation services and water resources management in Uganda. Currently, the World Bank is supporting the Lake Victoria Environmental Management Project II (LVEMP II) and the Water Management and Development Project (WMDP). Collectively, these are financing major water-related investments in priority urban areas and various measures to improve integrated water resources planning, management and development. The World Bank has in the past supported rural areas through the Output Based Aid grant that funded the Uganda Water Small Towns and Rural Growth Areas Project. The proposed Integrated Water Management and Development Project (the Project) builds on and scales up the achievements of the WMDP. It will ensure that WMDP meets its development objectives by implementing key water and sanitation investments in Gulu and Mbale and IWRM activities at the national, regional, and local levels. The Project will also focus on improving water and sanitation services in small towns and rural areas with special attention to the vulnerable northern region and those communities hosting refugees displaced from conflicts and famine. Furthermore, the Project will provide technical assistance aimed at consolidating water sector reforms to support efficient and effective service delivery models for small towns and rural areas.

Relationship to CPF

The proposed Project will support the government's Vision 2040 which aims to transform Uganda into a modern and prosperous economy. Aligned to Vision 2040, the Second National Development Plan (NDP II) focuses on promoting inclusive economic growth and achieving the United Nation's Sustainable Development Goals (SDG), which includes *to ensure availability and sustainability management of water and sanitation for all (SDG #6)*. The NDP II also identifies key priority actions that will enable Uganda to achieve accelerated and inclusive economic growth. The relevant priority actions include increasing the stock and quality of strategic infrastructure to accelerate the country's competitiveness; (ii) engaging human capital development and (iii) strengthening mechanisms for quality, effective and efficient service delivery. Water is at the center of the NDPII with interventions focusing on improving water and sanitation services in priority urban large towns, expanding access to the poor and vulnerable in underserved areas, and strengthening water sector institutions.

The Project is consistent with the World Bank's Country Partnership Framework (CPF, 2016 – 2021). Specifically, the Project directly supports *Objective four: Enhanced Resilience of the Poor and Vulnerable* of Strategic Focus Area B: Raising Incomes in Rural Areas by improving access to water supply and sanitation services in rural areas and implementing integrated catchment management plans focusing on protecting water sources and agriculture production against droughts and environmental degradation. The Project also directly supports *Objective 6: Improved Access to Urban Services* of Strategic Focus Area C: Boosting Inclusive Growth in Urban Areas by financing water and sanitation investments to improve coverage, quality and efficiency of these services in prioritized large urban and small towns. It helps Uganda support competitive and livable urban cities by eliminating water shortages and addressing health and environmental related problems from untreated septic sludge and wastewater discharges, both of which discourage economic growth. Aligned to the CPF, the Project recognizes significant inequality between regions, as well as between rural and urban areas, and is therefore designed to consider the dual importance of rural and urban development with special attention to the northern and eastern regions.



The Project supports achievement of the Bank's twin goals of eliminating extreme poverty and promoting shared prosperity in several ways. First, investments in water infrastructure act as catalysts for local development and economic activity, by providing water for agriculture, animal husbandry, food processing, and other businesses. Bringing higher quantities and more reliable water to households enhances their quality of life by (i) reducing the time and effort—especially of women and children—to collect water, (ii) reducing the incidents of waterborne diseases caused by contact with contaminated water, and (iii) diminishing absenteeism from work and school and the costs associated with these, including lost income and opportunities. In addition, the Project will assist in bringing water supply and sanitation services to the residents of the underserved northern and eastern districts, where approximately 84 percent of the poor live, including women and children who bear most of the cost of water scarcity and poor sanitation.

C. Proposed Development Objective(s)

The Project Development Objectives (PDOs) are to improve water supply and sanitation services and strengthen water resources management in project targeted areas.

Key Results (From PCN)

PDO indicators for the proposed project include:

- Direct project beneficiaries (number), of which female (percentage);
- People provided with access to improved water sources (number) (male/female)— Corporate Results Indicator;
- People provided with access to improved sanitation (number) (male/female) --Corporate Results Indicator;
- Area under integrated water resources management and development in selected catchments supported by the project (Ha);
- National water information system established and operationalized.

D. Concept Description

The Project will focus on three strategic areas: (i) delivering the necessary water and sanitation infrastructure in targeted areas; (ii) supporting water related institutions (MWE, local government, and service providers) develop and strengthen measures to establish and consolidate operational efficiency and service quality in small towns and rural areas; and (iii) strengthening national and regional capacity to improve IWRM. The Project's implementation approach will consider spatial differences between rural, small towns and urban large towns. It will also ensure that citizen engagement strategy, gender approaches, and sanitation and hygiene campaigns are included to foster behavior change and ownership within the population. Combined with infrastructure investments to support WSS services, the Project will integrate water source and catchment protection measures, comprehensive sanitation planning and service delivery support to ensure sustainability and increase resilience to climate variability.

Decisions on selectivity of project areas are informed from consultations with key stakeholders, the CPF, and the carry-over of subprojects included in WMDP. In terms of specific infrastructure investments, the Project will mainly focus on the northern and eastern regions including refugee hosting communities; however, rural areas in other regions will also be considered if they meet specific eligibility criteria. During project preparation, an eligibility and selection mechanism will be developed that consider poverty level, current water and sanitation service delivery levels, local ownership and project commitment, service provision mode, and cost/benefit and technical criteria. Sixteen small towns, two rural gravity flow schemes, two large towns, and four refugee hosting districts have been selected to participate in the Projects given their location and opportunity to spatially balance development, unmet water and sanitation demands, contribution to Uganda's economic growth.

Components and beneficiaries. To achieve the Project Development Objectives (PDOs), the proposed Project will finance the four components described below. The expected total number of beneficiaries is 2.2 million and 0.8 million for water



supply and sanitation, respectively.

Component 1 – Small-town and Rural Water Supply and Sanitation (US\$160.0 million)

Subcomponent 1.1: Support to Small Towns (US\$50 million)

This subcomponent will finance activities designed to improve water supply and sanitation services in small towns, including (i) construction and rehabilitation of water supply systems coupled with water source and catchment protection; (ii) provision of sanitation facilities and technical assistance activities to support sanitation service chain management including fecal sludge management, integrated sanitation (i.e. fecal waste, solid waste, and drainage) planning, and Community Led Total Sanitation (CLTS)¹³; and (iii) utility management related activities, including communication, client identification surveys, improving billing and collection systems, and NRW reduction, to support operational and financial performance of participating service providers.

This subcomponent includes five subprojects benefitting 16 small towns: (i) Busia, (ii) Namungalwe-Kaliro, (iii) Kyegegwa-Mpara-Ruyonza, (iv) Namasale, and (v) Adjumani II-Pakele. This subcomponent is expected to be executed by the MWE, and its regional offices in the districts, in coordination with NWSC and local authorities. With regards to service provision, currently there are three proposed arrangements (i) NWSC, (ii) UOs and (iii) private operators contracted out through local governments. Based on existing sectoral trends, it is likely that for the most part O&M of the systems will be transferred to NWSC; however, two or three small towns might be managed by UOs or private operators.

Subcomponent 1.2: Support to Rural Areas (US\$50 million)

This subcomponent will finance activities designed to improve water supply and sanitation services in rural areas, including (i) construction and rehabilitation of water supply systems coupled with water source and catchment protection; (ii) provision of on-site sanitation facilities and technical assistance activities to support sanitation service chain management including fecal sludge management and Community Led Total Sanitation (CLTS); and (iii) technical assistance and training to support community-based organizations and their supporting structures as well as hygiene and sanitation promotion coupled with sensitization activities, including care of domiciliary installations, tariffs, water conservation, and water resources management.

This subcomponent will support gravity fed or solar pumped piped water supply systems comprising of water source (spring, surface or borehole), storage tank and pipe distribution network feeding multifamily taps and/or household connections. On sanitation, the subcomponent will finance on-site sanitation facilities, such as pour-flush toilets with a range of superstructures and septic tanks, targeting public spaces, schools and institutions. Two specific gravity flow schemes have been identified to support rural communities in the districts of Kasese (Nyamugasani) and Buhweju (Bitsya). The subcomponent will also support a national rural water supply program aimed at increasing access to safely managed drinking water service through solar technology; however, specific project activities and areas will not be completely defined during project preparation. Therefore a comprehensive technical and safeguards framework will be developed to ensure that the Project will contribute to the PDO while complying with Bank policies. This subcomponent is expected to be executed by the MWE, DWD, Rural with its regional offices in close coordination with key stakeholders (local authorities and community organizations). It will also take a community participation approach throughout the project cycle – identification and preparation, execution, and assistance operation to foster sustainability. The service delivery model will focus on strengthening or creating new community based organizations, as well as supporting structures, such as regional associations and local authorities to provide backup O&M, financial support for major repairs and access to administrative

¹³ Community Led Total Sanitation (CLTS) is an innovative methodology for mobilizing communities to completely eliminate open defecation (OD). Communities are facilitated to conduct their own appraisal and analysis of open defecation (OD) and take their own action to become ODF (open defecation free).



and insitutional assistance and training opportunities.

Subcomponent 1.3: Support to Refugee Host Communities (US\$60 million)

This subcomponent will finance activities designed to improve water supply and sanitation services in refugee host communities, including (i) construction and rehabilitation of water supply systems coupled with water source and catchment protection; (ii) provision of sanitation facilities and technical assistance activities to support sanitation service chain management including fecal sludge management and Community Led Total Sanitation (CLTS); (iii) technical consultancies to prepare engineering designs, safeguards documentation, and construction supervision; and (iv) establishment of service providers when needed and utility management related activities, client identification surveys, improved billing and collection systems, and NRW reduction, to support operational and financial performance of participating service providers.

This subcomponent will focus on the northern districts of Yumbe, Adjumani, Moyo and Lamwo, with several hosting communities and refugee settlements. Proposed interventions could include improved water and sanitation systems for either host districts (small towns) or specific rural communities. The project will take a long-term and systematic approach to water and sanitation service delivery at the district level while addressing some immediate needs at the community level. To that end, the MWE will hire a consultancy to prepare detailed designs for immediate actions (short term interventions) to mitigate the impacts of water scarcity, droughts and recurrence of waterborne diseases. The consultancy will also include water and sanitation master plans that specify medium and long-term solutions to improve access to safe drinking water and provide sustainable sanitation that addresses the entire service chain, including containment, collection and transportation, treatment, reuse, and disposal. Detailed designs of specific investments will not be ready by appraisal and therefore this subcomponent will rely on a comprehensive technical and safeguards framework to prepare and implement appropriate activities. This subcomponent will be implemented by the MWE in close consultation with other key stakeholders, such as the Office of the Prime Minister (OPM), the UNHCR and local authorities. The service delivery model will vary depending on the characteristics of the community (small town or rural), large towns are not expected to be served under this subcomponent.

Component 2 –Urban Large Towns Water Supply and Sanitation (estimated cost US\$65.0 million)

This component will finance project activities designed to improve water supply and sanitation services in Mbale and Gulu. The activities include (i) construction and rehabilitation of water supply and sanitation systems in Mbale; (ii) construction of water works to support Gulu’s long-term bulk water supply scheme; (iv) source protection and catchment measures in both towns; and (v) construction supervision consultancies.

The specific water supply activities for Mbale include: the construction of a river intake, transmission line, distribution main and networks; sanitation activities include construction of sewerage networks and fecal sludge treatment plant and rehabilitation of the wastewater lagoon system. For Gulu, the project will finance a water transmission line from the water source (Nile River) to Gulu town. Other components of the bulk infrastructure, intake structure, water mains and distribution networks will be financed by KfW. Since these activities were originally included under the current WMDP, project preparation is quite advanced. For Mbale detailed designs have been finalized while bidding documents and safeguards documents are expected by appraisal.

This subcomponent will be implemented by the NWSC in close coordination with the MWE and local authorities. The NWSC will continue to provide service delivery in these areas and will work to improve operational and commercial efficiency.

Component 3 – Water Resource Management (estimated cost US\$25.0 million)

This component will finance project activities designed to plan and implement IWRM, including (i) preparation of key water resources planning instruments, including the Water Resources Strategy for the Albertine Water Management Zone,



four integrated catchment management plans that will include a Water Allocation Tool, and a national groundwater management study; (ii) implementation of selected priority investments identified in existing catchment management plans (CMPs) aimed at ensuring sustainability and water security for all in targeted sub-catchments; and (iii) provisions to strengthen water resources monitoring and information systems nationally, including the operationalization of the Water Information System (WIS 2.0), installation of hydro-meteorological stations, renovation to the national water quality laboratory, and institutional strengthening of the National Water Resources Institute.

Uganda is divided into four water management zones - the Upper Nile; Kyoga; Albert; and Victoria WMZs respectively. The current WMDP has focused mainly on two zones – the Upper Nile and Kyoga WMZs, while the LVEMP II has focused on the Victoria WMZ. The proposed Project will provide support for the Albert WMZ which lies in the western part of Uganda characterized by a high topography with a high potential for hydropower generation and water supply through gravity feed systems. Several water supply schemes in the zone have been facing great seasonal fluctuations in water quantity, poor water quality and occasional washing away by landslides. The water demand in this zone is expected to grow, particularly with the expected increase in investments of oil production due to start by 2020. Several rural water schemes proposed in this project including the two gravity flow systems are in this zone. It is therefore important for the project to support the Albert WMZ in an integrated manner.

The proposed activities are building on what has been done under the WMDP, but will be scaled up to effectively support the sustainability of infrastructure to be developed under the other components in terms of water allocation, protection of catchments around the water supply systems to mitigate the impacts of climate change and environmental degradation, and to ensure that there is coordinated development and management of water and related resources. Preparation of this component is quite advanced with terms of reference for consultancies and technical specifications for priority catchment management investments completed. This component will be implemented by the MWE, Directorate of Water Resources Management (DWRM).

Component 4 – Project Implementation and Sector Support (estimated cost US\$10.0 million)

This component will finance activities designed to strengthen the capacity of the Recipient for Project management, implementation and coordination, and monitoring and evaluation (M&E), including (i) establishment and implementation of a comprehensive M&E system; (ii) training of the implementing agencies and local governments on implementation of safeguard and fiduciary policies; and (iii) financing studies identified during implementation and preparation of follow-on subprojects as needed. Activities to support sector reform include (a) technical assistance to NWSC for the creditworthy rating and commercial financing preparation and to small towns to ensure technical and financial sustainability of WSS systems; (b) development of appropriate management service delivery models for small towns and rural areas (O&M Models); and (c) development of the service provider performance monitoring and information system to support the Ministry's regulatory function.

This component will be implemented by the MWE and NWSC in close coordination with key stakeholders. By appraisal, MWE will complete terms of references of key consultancies as well as an implementation plan to carry out the sector support activities.

Project Cost, Duration, and Financing. The estimated total project cost is US\$260 million financed by IDA 18 funds to address water supply, sanitation and water resource management. Subcomponent 1.3: Support to Refugee Host Communities (US\$60 million) would be financed by the IDA 18 sub window for refugee and host communities (USD 25 million credit and USD 25 million grant) and by national IDA (USD 10 million). The government will be responsible for counterpart financing to cover some operating costs, the acquisition of land, and any compensation due to project-affected people. The Project will be implemented over a period of five years to allow sufficient time for successful



achievement of the PDOs. The lending instrument for the proposed Project is Investment Project Financing (IPF). Selection of the IPF structure was based on the IPF's flexibility and suitability to incorporate financing for a broad range of activities, including several specific investments, technical assistance, and capacity enhancement measures. The Borrower will be the Government of Uganda for the full IDA amount. Given the financial capacity of NWSC and the revenue generating potential of Component 2, the GoU will have an on-lending arrangement of US\$65 million with NWSC.

Lessons learned and incorporated in the project design. The proposed project design draws valuable lessons from the ongoing operations in Uganda and the global experiences in small town and rural areas. The lessons from the on-going WMDP and LVEMP-II point to the need for paying closer attention to effectiveness delays and slower implementation due to limited readiness during preparation that results in lower disbursement rates and cost overruns. To that end, the current WMDP has financed and is financing the ongoing preparation of studies, designs, bidding documents, and safeguard documents for the great majority of Components 1 and 2. This will allow implementation to proceed as soon as the Project becomes effective. The rural water supply program relies on solar technology to improve access to safe drinking water. Solar water schemes are ideal solutions, particularly for the most isolated rural locations; however, global experience indicate that attention needs to be paid to the following factors: (i) quality and quantity testing of the existing boreholes; and (ii) system dimensioning including borehole yield, sun hours, the needs of livestock, shading/seasonal fluctuation, peak demand times and population growth forecast. Uganda has accumulated significant experience in solar schemes; completed schemes are performing well, with increasing customer base and demand for more services. The proposed solar schemes under this project will be designed and implemented based on these experiences, with relevant additional insights and new technologies included to enhance performance.

Social Assessment and Gender Integration. A detailed Social Analysis (SA) of the population in the Project's targeted areas will be included in the Environmental and Social Impact Assessment (ESIA). Women from selected urban, small town and rural areas targeted by the project will be consulted in gender-disaggregated groups to ensure their specific needs are reflected in the design and implementation of the Project. A gender analysis (GA) will be carried out as part of the SA to examine gender-related issues, promote gender equality and enhance the Project's development effectiveness. A gender action plan and monitoring plan will be developed based on the GA to enable gender mainstreaming for the identified subprojects during Project implementation.

Citizen Engagement. Community participation and beneficiary engagement will be sought throughout Project preparation and implementation. Local communities, particularly women, will be consulted to raise community awareness on the importance of safe drinking water and to promote sanitary practices. During the project preparation, the social analysis will also examine potential impacts on beneficiaries, especially on socially excluded groups, if any, and explore a meaningful way to engage with them. A beneficiary satisfaction survey that gauges improvements in water supply and sanitation service delivery in targeted areas will be conducted at the Project's start, mid-term review and at completion and relevant indicators will be included in the results framework and monitored over the life of the project. The Project will also establish a grievance redress system dedicated to addressing residents' complaints related to the Project's works. A beneficiary feedback indicator(s) will be included in the Results Framework.

The Project will take a special attention to community participation in rural areas. The project will engage and promote community participation through continuous consultations prior to and during and after implementation, ensuring project sustainability beyond financial measures. To that end, the project will pursue a demand responsive approach where beneficiary communities are involved in site selection, setting tariffs and fee collection to ensure a sense of ownership and commitment. Furthermore, the project will establish platforms that will involve beneficiary communities in O&M management for the schemes to be built under the project and actively empower communities by setting up local supervision committees to provide oversight during construction and post project completion at O&M stages.



Screening for climate change. Preliminary screening for climate change and disaster risks was done as per requirements for the project's three components. The identified risks included extreme temperature which will likely trigger an increase in potential evapotranspiration, an increase in the annual variability of precipitation and extreme precipitation events which also are likely to cause floods which can be hazardous to local communities, livestock and hinder agricultural activities. To address these risks, the project includes source protection measures such as restoration of riverine vegetation, reforestation, buffer zone protection that will help reduce effects of flooding and protect the surrounding environment. These practices also help increase groundwater recharge and ground cover which reduces evapotranspiration rates and helps conserve water resources. The project will undertake further consultations with the relevant stakeholders to ensure that the design of the water infrastructure considers the associated risks.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The Project will have a large focus on the northern and eastern regions given severe water scarcity and low socio economic living conditions. The identified areas include (i) five water scheme systems of small towns: Busia, Butaleja-Busolwe, Budaka-Kadama-Tirinyi-Kibuku, Namungalwe-Kaliro, Kyegegwa-Mpara-Ruyonza, Namasale, and Adjumani II-Pakele; (ii) rural communities in the districts of Kasese (Nyamugasani) and Buhweja (Bitsya); (iii) refugee hosting communities in the Northern districts including Yumbe, Adjumani, Moyo and Lamwo which lie along the West Nile region; and (iv) two large towns – Gulu and Mbale. Other specific locations for the solar piped water systems under the rural component (1.2) will be determined during preparation. The classification is based on population per area whereby large towns have a population greater than 15,000; small towns have between 5,000-15,000 inhabitants; and rural areas have lower than 5,000 inhabitants. Gulu and Mbale have a population of 300,000 and 163,000, respectively.

Component 3 will include water resources measures in three sub-catchments (Awoja, Mpologoma and Victoria Nile) in the Kyoga Water Management Zone (WMZ) and two sub-catchments (Albert Nile and Aswa) in the Upper Nile WMZ. These measures are aimed to safeguard the land and water resources to support the sustainability of the infrastructure investments under components 1 and 2.

Based on the information available, the proposed activities are not located in environmental sensitive areas or in areas where indigenous populations live.

The Project supports a range of infrastructure investments, including construction and rehabilitation of water supply systems, rehabilitation and expansion of wastewater treatment systems, construction of sewers and fecal sludge treatment facilities, on-site sanitation facilities, integrated water resources management measures, and renovation of water quality laboratories, among others. Physical civil works are expected to generate negative environmental and social impacts including health and safety concerns, effluent discharge-related pollution, land take, and possibility of labor influx. The associated environmental and social impacts can be reversed, are temporary in nature and scope, and can be easily and cost-effectively mitigated. It is also expected that impacts will be site-specific and may not affect an area broader than the sites of the physical works.

B. Borrower's Institutional Capacity for Safeguard Policies

The Borrower's institutional capacity for safeguard policies deems adequate. The Project will be implemented by two



implementing agencies (IAs): Ministry of Water and Environment (MWE) and National Water & Sewerage Corporation (NWSC). The Project will utilize similar implementation arrangements set up for the ongoing Water Management Development Project (WMDP) (P123204). The MWE have satisfactorily implemented water and sanitation (WSS) and water resources management projects with the current WMDP, and therefore have accumulated extensive experience with Bank safeguards procedures. The WMDP's ISRs indicate overall safeguards ratings of satisfactory and moderately satisfactory from December 2014 to present. The IAs will be responsible to ensure the preparation and implementation of safeguards instruments, as well as overall compliance enforcement of relevant national safeguards regulations. The Project will have at least four qualified safeguards staff in each IAs and at least two training events per year will be conducted. The Project will support the hiring of key personnel, training and preparation of additional studies if required. Construction supervisors, consultants and NGOs will work as a supporting structure to ensure safeguards and social related activities are implemented as envisioned. In addition, the Bank will ensure that adequate budget is allocated to implement all proposed safeguards measures and adequate capacity building is included. The capacity assessment will be completed before appraisal.

C. Environmental and Social Safeguards Specialists on the Team

Herbert Oule, Environmental Safeguards Specialist
 Boyenge Isasi Dieng, Social Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The Project will largely generate positive impacts contributing to public health, economic growth, and environmental sustainability. OP 4.01 is triggered as the project may have potential adverse environmental and social impacts through the construction and operational phases. Possible impacts during construction include impacts on water bodies associated to earthworks and wastewater generated from construction activities; emissions of particulate matter by earthworks and removal of vegetation cover; improper handling of asbestos cement (AC) pipes; Occupational, Health, and Safety (OHS) risks; and social misdemeanor by workers. The impacts during construction phase will be temporary while works are carried out. During the operation phase, the potential risks include unpleasant odors and noise from the operation of sanitation facilities; inadequate sludge management and wastewater effluent discharges; possible impacts on surface and/or ground water due to leakages from and intrusion of storm water to the facilities (sewers, manholes, ponds, an septic tanks); and impacts of water intake on environmental flows and aquatic ecosystems, including migratory fish species.</p>



The anticipated negative impacts will be localized, site-specific and small to moderate in scale. All project adverse impacts are expected to be mitigated with known technology, good practices and management solutions, resulting in residual impact of minor significance. For instance, the treated effluents from wastewater facilities (ponds and fecal sludge treatment facilities) will not generate significant impacts, if the facilities are operated and maintained according to design standards. With respect to AC, the environmental management plan will include management measures for the removal, packaging, transportation and disposal of existing asbestos waste. Works and equipment will be designed based on technical studies to ensure safe yield from groundwater and surface water resources. The water and sanitation facilities are relatively small. The largest interventions are in Gulu (pop. 300,000) with the construction of a new surface water supply system of 30,000 m³/day and Mbale (pop. 163,314) with the construction and rehabilitation of water supply works and sanitation facilities.

The Project will not generate any potential large scale, significant and/or irreversible impacts, it is not located in environmental sensitive areas, and impacts can be readily mitigated with relatively standard mitigation measures.

Cumulative impacts of different activities in the same towns will also need to be assessed and taken into account in the ESIA/ESMP and the ESMF should have clear provisions for assessing cumulative impacts.

The project is provisionally categorized A and the categorization will be revisited before appraisal.

Safeguards instruments. Compliance will be ensured through diligent application of an Environmental and Social Management Framework (ESMF) and site specific Environmental and Social Impact Assessment (ESIA)/Environmental and Social Management Plan (ESMP) during implementation. For subprojects that have complete detailed engineering designs, their specific ESIA/ESMPs have already been reviewed and



cleared by the Bank in 2016 and also have been consulted and disclosed. These subprojects include Mbale WSS (component 2) and Busia WSS (component 1). However, the Busia ESIA will be updated following three key changes in the components of the system: the water intake, the water treatment plant (WTP) and the faecal sludge treatment facility (FSTF). For all other subprojects included under Components 1, 2 and 3, the Client will prepare and submit to the Bank an ESMF given that feasibility and detailed design studies have not been undertaken. The ESMF will be prepared in accordance to the laws of Uganda and the WB Environmental and Social safeguards policies, be reviewed by the Bank and disclosed in country and in the Banks's external website. Because project activities are proposed in and around refugee hosting communities, the client will be required to conduct socio-economic analysis during the preparation of relevant safeguard instruments (i.e. ESMF, ESIA, RPF, and RAPS) to guide the formulation of effective environmental and social mitigation measures. Note that Social Assessment (SA) will be part of the ESIA and the ESMF should include specific guidelines on how to conduct SAs

The Project will follow the WB- EHS Guidelines for Water and Sanitation.

Natural Habitats OP/BP 4.04

Yes

While no significant negative impacts on natural habitats are anticipated by project works, the policy is triggered because most of the sanitation facilities may discharge their effluent into wetlands. In addition, the project will also involve catchment management and some of the investments may involve afforestation, reforestation and improvement of watersheds. Depending on the subprojects and potential negative impacts to the natural habitats (forests, wetlands, lakeshores, and riverbanks), these subprojects will require special studies under the ESIA to protect or preserve any flora & fauna species identified at risk of being affected. If a subproject can cause irreversible damages, it will be excluded.



Forests OP/BP 4.36	Yes	OP 4.36 is triggered due to potential project impacts on health and quality of forests, especially in the catchment areas where the project will support afforestation, reforestation and improvement of watersheds. Compliance will be ensured through the ESMF and site specific ESIA's.
Pest Management OP 4.09	No	The project will not involve the purchase, manufacture or use of pesticides. The Project will not lead to increased/changed use of pesticides.
Physical Cultural Resources OP/BP 4.11	Yes	The policy is triggered due to the possibility of chance finding of physical cultural resources during construction. Any potential physical cultural resources will be addressed by incorporating reporting and handling procedures as part of site specific ESIA and dealt with in the context of the ESMF.
Indigenous Peoples OP/BP 4.10	TBD	Final determination will be done during preparation/prior to appraisal.
Involuntary Resettlement OP/BP 4.12	Yes	<p>The policy is triggered because of the potential adverse social impacts that might result from the need for land acquisition and/or the loss of access to economic assets and livelihoods due to integrated WRM and WSS activities.</p> <p>For subprojects that have complete detailed engineering designs during preparation, their specific Resettlement Action Plans (RAPs) have already been reviewed and cleared by the Bank in 2016 and have been consulted and disclosed. These subprojects include Mbale WSS (component 2) and Busia WSS (component 1). However, the Busia RAP will be updated following three key changes in the components of the system: the water intake, the water treatment plant (WTP) and the faecal sludge treatment Facility (FSTF). For all other subprojects included under Components 1, 2 and 3, the Client will prepare and submit to a Bank a Resettlement Policy Framework (RPF) given that feasibility and detailed design studies have not been undertaken. The RPF will be prepared in accordance to the laws of Uganda and the WB Environmental and Social safeguards policies, be reviewed by the Bank and disclosed in country and in the Banks's external website.</p>



Safety of Dams OP/BP 4.37	Yes	<p>OP 4.37 is triggered as the project will finance rehabilitation and construction of small dams (i.e. dams smaller than 15m, as per OP 4.37) identified through the catchment planning process under component 3, including small dams to prevent soil erosion and for flood protection. The existing Small Dam Guidelines prepared for Uganda, and the FAO Manual on Small Earth Dams (both disclosed) will be used to ensure adherence to generic dam safety measures.</p> <p>The Project does not support the construction or rehabilitation of large dams and subprojects do not include structures that will rely on the performance of an existing dam or dam under construction (DUC). The latter conclusion also applies to the Gulu Water Supply System, which was evaluated carefully given that the intake structure would be located in the backwater of the Karuma dam (a DUC). The abstraction point of the intake would be close to the river bed and below the minimum reservoir operational level. The proposed intake is a submerged structure, which would be designed to include protective features to pipes, valves and associated electromechanical installations. Failure of the dam will not affect the intake operation given that it is located upstream of the dam and the Nile river environmental flow of 100 m³/s is more than sufficient to maintain constant raw water flow into the intake wet well (design capacity 0.34 m³/s). Important to mention that the intake and water treatment plant would be financed by KfW and the Bank would finance associated transmission and distribution pipelines.</p>
Projects on International Waterways OP/BP 7.50	Yes	<p>This policy is triggered since some water sources are connected to River Nile (International Waterway), Government of Uganda will be required to undertake Riparian Notification of the Nile Basin Countries before Project Appraisal, to meet the requirements of OP 7.50. It is not anticipated that the project will cause appreciable harm to any of the riparian through water deprivation, pollution or otherwise. Neither it is anticipated that the implementation of project activities will adversely change the overall quantity or</p>



quality of water flowing to or from any of the riparian of the concerned international waterways.

Note that the ESIA's for water supply systems drawing water from Nile River will assess and document impacts of water abstraction on the water quantify and quality of the Nile River.

Projects in Disputed Areas OP/BP 7.60

No

OP 7.60 is not triggered since the project will not support any activities in disputed areas.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Feb 23, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The safeguards documents indicated above should be completed and disclosed by appraisal (March 2, 2018)

1. ESMF and RPF
2. ESIA/ESMP for Mbale WSS and Busia
3. RAP for Mbale and Busia
4. International waterways notification requirement

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APPROVAL

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