



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 10-May-2018 | Report No: PIDISDSA23958



BASIC INFORMATION

A. Basic Project Data

Country Uganda	Project ID P163782	Project Name Integrated Water Management and Development Project	Parent Project ID (if any)
Region AFRICA	Estimated Appraisal Date 10-May-2018	Estimated Board Date 14-Jun-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 PDO is to improve access to water supply and sanitation services, integrated water resources management, and operational performance of service providers in Project areas.

Components

- Component 1: WSS in Small Towns and RGCs and Support to Districts Hosting Refugees
- Component 2: WSS in Large Towns and Support to District Hosting Refugee
- Component 3: Water Resource Management
- Component 4: Project Implementation and Institutional Strengthening

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	308.00
Total Financing	308.00
of which IBRD/IDA	275.00
Financing Gap	0.00

DETAILS

World Bank Group Financing



International Development Association (IDA)	275.00
IDA Credit	246.00
IDA Grant	29.00

Non-World Bank Group Financing

Counterpart Funding	8.00
Borrower	8.00
Other Sources	25.00
GERMANY: KREDITANSTALT FUR WIEDERAUFBAU (KFW)	25.00

Environmental Assessment Category

B-Partial Assessment

Decision

The review did not authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. **Uganda’s economy averaged 4.5 percent gross domestic product growth from 2011 to 2016 and 3.5 percent in 2017.** The current economic slowdown is driven by adverse climate conditions, unrest in South Sudan, private sector credit constraints, and slow execution of public sector projects. Economic forecasts indicate that the economy will recover in 2018 and that Uganda’s oil sector and public and private sector investments will provide the resources required for the country to reach middle-income status by 2020.¹ The most critical risk to this outlook is regional instability, particularly from the ongoing conflict in South Sudan. An estimated 1 million South Sudanese refugees have already migrated to Uganda. The continuation of this conflict could affect export earnings and place an excessive amount of pressure on Uganda’s public services and natural resources. Other potential development constraints include delays in capital investment programs, high population growth, limited water supply and sanitation (WSS) infrastructure, and insufficient water resources to meet the country’s demands. Adequate water resource management is particularly key to Uganda’s economic outlook given the country’s dependence on agriculture (approximately 69 percent of Ugandans work in agriculture) and recent shift towards industrialization.²

2. **Uganda has achieved remarkable results in poverty reduction, but poverty rates remain high in**

¹ Uganda Vision 2040 objective.

² As Uganda industrializes, water resources management will be critical to ensuring steady growth of the energy, agriculture, industry, and tourism sectors as well as to sustaining human and environmental health.



the Northern and Eastern regions. From 1992 to 2013, the percentage of Ugandan households living in poverty nearly halved.³ However, according to the Uganda Poverty Assessment Report (2016),⁴ in 2013 more than a third of Ugandans lived below the international extreme poverty line of US\$1.90 per day. Moreover, the risk of Ugandans falling back into poverty is high; for every three Ugandans that moved out of poverty, two fell back into poverty. Poverty has become increasingly concentrated in Uganda's Northern and Eastern regions. Approximately 84 percent of Uganda's poor (living below US\$1.90 per day) reside in in the Northern and Eastern regions, where 43 percent of the residents live on less than US\$1 a day. Economic growth in these regions has been affected by the civil conflict in South Sudan, significant land degradation, an influx of refugees, and climate change.

3. Demographic trends and urbanization pose a daunting challenge to Uganda's economic growth and underscore the need for better urban planning and basic service provision. Uganda's population of 35 million is expected to reach 80 million by 2040. Uganda's annual urban growth rate of 5.2 percent is among the highest in the world, and the urban population is expected to grow from 6.4 million (2014) to 22 million by 2040. About 60 percent of the current urban population, however, lacks basic amenities, such as decent housing and WSS services. In addition, many small towns and rural growth centers (RGCs) have emerged around the country, creating greater demand for services.⁵

4. Land resources, water resources, and basic services have been further strained by the influx of refugees. Uganda is the largest refugee-hosting country in Africa and one of the top five in the world. According to data from the United Nations High Commissioner for Refugees (UNHCR), Uganda had the highest number of new refugees in the world in 2016; Uganda hosted 940,835 refugees, 514,000 of whom arrived during the second half of the year. By December 2017, the number of refugees had increased to 1.4 million. About 75 percent of these refugees are from South Sudan⁶ and approximately 70 percent have settled in the West Nile area of northern Uganda, predominately in five districts (Yumbe, Arua, Moyo, Adjumani, and Lamwo). These districts are among the poorest areas in the country and are in the early stages of recuperating from a protracted civil conflict.

5. Uganda has a progressive refugee policy framework that grants refugees the right to work, to move freely, and to access Ugandan social and public services. This policy, however, places an additional layer of stress on host communities, which are mostly poor small towns and rural areas that suffer from inadequate infrastructure, limited social capital, low productivity, and environmental degradation due to climatic and soil conditions. The inability to address the development needs of host communities may undermine Uganda's long-standing open-door refugee policy.

³ From 1993 to 2013, households living in poverty went from 68.1 percent to 33.2 percent.

⁴ World Bank, The Uganda Poverty Assessment Report 2016.

⁵ Small towns refer to urban centers considered town councils by the Uganda Bureau of Statistics (UBOS) with population between 5,000 and 15,000; the rural sector includes all rural communities with a population of up to 5,000. Communities are considered rural when they are in a rural subcounty defined by the UBOS. RGCs have a population between 1,500 and 5,000.

⁶ The number of refugees has increased to 1.4 million as of December 2017, of which 52 percent are characterized by women and girls and 61 percent by children under 18 years. Approximately 75 percent of the refugees originate from South Sudan; 17 percent from the Democratic Republic of Congo; and 3 percent from Burundi, Somalia, and other countries.



Sectoral and Institutional Context

6. **The Government of Uganda (GoU) has built a comprehensive legal and institutional framework to improve WSS and water resources management.** Uganda has a clear tariff and regulatory structure based on socioeconomic conditions and cost recovery principles. The roles and responsibilities of stakeholders are well defined. The Ministry of Water and Environment (MWE) is responsible for determining priorities, setting policies and standards for water development, and regulating water resources activities and WSS services. The National Water and Sewerage Corporation (NWSC), an autonomous public utility owned by the GoU and positioned under the MWE, is responsible for WSS provision in 30 large and 227 small towns.⁷ In small towns and rural areas that are not served by the NWSC, local authorities (town councils), with the support of the MWE, are responsible for WSS service delivery. The town councils act as water service providers (water authorities) and can elect to provide service directly, utilize community-based organizations, or employ private companies. The MWE provides the water authorities with support through its Water and Sanitation Development Facilities (WSDFs) that provide financing and guidance for the design and implementation of WSS systems and through six regional umbrella organizations (UOs) that provide high-level assistance on operation and maintenance (O&M) related activities. The UOs are limited guarantee companies that have successfully provided technical, managerial, and financial management (FM) support to water authorities since 2001. Currently, the UOs receive subsidies from the GoU and development partners (DPs) to conduct these activities.

7. In the early 1990s, the GoU implemented significant policy reforms, including the commercialization and modernization of the NWSC. 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.

8. **The GoU has adopted an integrated water resources management (IWRM) approach as part of its water sector reform program, but more needs to be done to consolidate and fully implement IWRM across the country.** IWRM is a critical part of the country's strategy to ensure water security given current climate variability and climate change. Since the early 2000s, the sector has taken important steps to build an appropriate policy and institutional framework for IWRM. The MWE established four deconcentrated Water Management Zones (WMZs) to guide the development and implementation of an IWRM approach at the regional level. The MWE, with the participation of multiple stakeholders, has developed water resources strategies for three of the four WMZs and catchment management plans (CMPs) in identified hot spot sub-catchment areas.⁸ The current focus of the MWE is to consolidate and fully implement IWRM across the country by strengthening strategic planning instruments, improving information systems, and implementing CMPs.

9. **Demographic, climate, and development trends point to increased pressure on Uganda's water resources.** While Uganda's per capita freshwater resource is among the highest in the world, lack of infrastructure, climate variability, and environmental degradation hamper the country's ability to meet

⁷ Large urban towns are cities and municipalities defined as urban centers by the UBOS' National Population and Housing Census (NPHC). Urban centers include all areas gazetted as city, municipality, town council by the UBOS.

⁸ There is an emerging recognition that catchment management activities form an integral part of cost-effective WSS service. For instance, water source protection is included in all water supply projects to ensure quality and quantity of water resources. The MWE is strengthening its data collection and analysis capabilities to ensure that decision making is based on scientific analysis and informs investments and water resources-related policies.



water demands. Estimates indicate that water use will triple by 2035. Although this future demand would only constitute about a fifth of the net water available, high climate variability and underdeveloped water resources infrastructure could result in significant water stress in areas of the country. According to the National Water Resources Assessment (2013), only 2.8 percent of the internal renewable water resources are currently utilized, yet almost three-fourths of districts will experience high or extreme water stress by 2035. A 2015 climate diagnostic for Uganda showed that increased temperatures would produce higher levels of potential evapotranspiration, leading to a more arid climate throughout the country.⁹ At the same time, climate change is expected to result in more intense precipitation that is likely to lead to damaging and life-threatening floods over the next 10 years.¹⁰ These climate hazards entail significant risk to water resources and to WSS infrastructure.

10. **Despite considerable progress in the WSS sector, Uganda still faces challenges to improve WSS delivery in small towns and RGCs, ensure water security, and provide adequate sanitation in large towns.** National water supply coverage levels (77 percent in urban areas and 67 percent in rural areas) mask disparities in service quality between urban and small towns/rural areas. In urban areas, 48 percent of households use piped water, but that number falls to 33 percent in small towns and to 9 percent in rural areas. Most of the country relies on community point sources.¹¹ Despite an acceptable level of functionality of water systems (80 percent in rural and small towns), many people still travel long distances to fetch water. Populations with insufficient potable water oftentimes use unsafe water sources, triggering cholera, typhoid fever, and diarrhea outbreaks as well as adverse social consequences, such as sexual and domestic violence.¹² In the districts hosting refugees, water demand far exceeds available water supply. The poor location of boreholes, frequent pump breakdowns, and distribution challenges in scattered refugee zones compromise water service and supply. The UNHCR relies on water trucking, a very expensive option,¹³ to meet the minimum water demands (20 L per person per day).

11. **Sanitation coverage poses another significant challenge.** The United Nations Joint Monitoring Program reports that only 29 percent of the urban and 17 percent of the rural populations have access to individual improved sanitation facilities. Sewerage coverage is less than 7 percent in large towns and 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. In refugee settlements, sanitation coverage is low given insufficient pit latrines¹⁴ and communal sanitation facilities. These deficiencies have caused severe water pollution and related

⁹ World Bank. 2015. "Uganda Climate Profile."

¹⁰ Global Facility for Disaster Reduction and Recovery. Thinkhazard.com. <http://www.thinkhazard.org/en/report/253-uganda> (accessed February 7, 2018).

¹¹ Point sources include community systems operated by hand pump boreholes or protected springs.

¹² The MWE commissioned a Gender Impact Study of the Water and Sanitation Sub-Sector in March 2017. The study showed that women and girls are vulnerable to sexual violence when they travel distances to fetch water. The 'Safeguards' section of the Project Appraisal Document provides more detail on the findings.

¹³ Trucking cost ranges from UGX 300,000 to UGX 500,000 per trip. Water trucking is usually intended for the initial phase of a humanitarian emergency to meet minimum water demands of refugee settlements. However, water trucking currently accounts for over 30 percent of the total water supply in refugee settlements. This percentage surges past over 50 percent in some districts in West Nile.

¹⁴ Per the UNHCR, sanitation coverage in the West Nile is about 34 percent. Sanitation coverage at household level in heavily districts hosting refugees such as Yumbe, Arua, and Moyo is 24 percent, 22 percent, and 6 percent, respectively. UNHCR WASH Gap Analysis, June 2017.



environmental and public health issues.

12. **In response to these challenges, the GoU has developed programs and policies focused on improving WSS services in poor small towns and RGCs.** 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 success with this private delivery model, scaling up has been difficult, and the GoU has opted to apply a clustering (regionalization) service delivery approach in which the NWSC assumes management responsibility.¹⁵ Since 2014, the MWE has transferred service responsibility for 227 small towns to the NWSC.¹⁶ The small towns managed by the NWSC have experienced marked improvement in revenue collection, network expansion, and service quality. The GoU plans to continue transferring small towns to the NWSC as long as it is technically and financially viable for the corporation. When it is not feasible, the MWE will transfer management responsibility of piped WSS systems to the regional UOs.¹⁷ The GoU's decision to move forward with this 'umbrella approach' was made after careful consideration of options with DPs and stakeholders. The German Technical Cooperation's study on the 'Reorganization of Water Supply and Sewerage Service Areas in the Urban Water and Sanitation Sub-sector' ultimately informed the approach. The MWE is currently developing guidelines for the UOs to direct and streamline their operation and to establish a specific tariff structure. In August 2017, the MWE appointed six regional UOs (Northern, Midwestern, Karamoja, Southwestern, Central, and Eastern) as Umbrella Water Authorities (UWAs) in charge of 71 small towns (about 10 small towns per UWA). To date, the UWAs have performed relatively well with average revenue collection rate and non-revenue water (NRW) at 75 percent and 29 percent, respectively. Financial data indicate that the Northern Umbrella and the Midwestern Umbrella service 2,809 and 2,387 active connections, respectively, and collected UGX 27.5 million and UGX 33.6 million in October 2017, respectively. Their O&M costs for October 2017 were UGX 16.3 million and UGX 27.1 million, respectively.¹⁸ While the UWAs can cover their routine O&M costs, they are still dependent on public financing for capital investments and for providing assistance on O&M related activities to other local water authorities. The Project's financial analysis, however, indicates that the GoU's policies will enable the UWAs to reach cost recovery in five years.

13. Among other new approaches, the GoU launched a comprehensive water supply program for RGCs that includes the adoption of solar technology for pumping and community involvement in system design/operations. For sanitation in small towns and RGCs, the MWE is focused on implementing sanitation monitoring and behavior change approaches, including (a) Community-Led Total Sanitation (CLTS) and sanitation marketing, (b) construction of on-site sanitation facilities in public markets and schools, and (c) construction of fecal sludge treatment facilities (FSTFs). More attention needs to be given

¹⁵ Challenges from the private delivery model include (a) high investment needs due to significant infrastructure backlogs, (b) difficulties attracting private operators to work in poor and challenging districts coupled with unattractive contract conditions (that is, short contract duration and fixed price structures), and (c) weak regulatory measures to monitor and evaluate performance.

¹⁶ The MWE has followed clear and transparent guidelines and procedures for the transfer process, which begins with a formal request from local government units and is followed by a due diligence assessment and approval by the NWSC's management. Once the NWSC takes responsibility for the service, the NWSC's financial, commercial, and technical systems will be applied in the small towns.

¹⁷ In accordance with the findings of the Reorganization of Water Supply and Sewerage Service Areas in the Urban Water and Sanitation Sub-Sector in Uganda, Phase II - Preferred Option Report, December 2016.

¹⁸ Running O&M consists of operator remuneration, energy, chemicals, and routine maintenance.



to the full sanitation service chain to ensure human waste is contained, conveyed, treated, and reused/disposed of safely and sustainably. DPs, including the World Bank, are providing technical assistance (TA) to the MWE to improve fecal sludge management.

14. The GoU has also prioritized basic infrastructure investments in several large towns in the Northern and Eastern regions to achieve more integrated and balanced economic development. The NWSC and the MWE are prioritizing WSS investments in the municipalities of Gulu and Mbale, given their contributions to the country's economy and their water security issues. Gulu Town, the economic capital of the Northern region is experiencing an average population growth of 5.2 percent per year. Nevertheless, at least 70 percent of Gulu's population lives below the poverty line and only 4 percent of the town is reported to have access to piped water. Moreover, the town is susceptible to dry spells and has experienced severe water shortages. The critical water supply situation in Gulu is the result of two decades without infrastructure investments because of the civil unrest. Further to the east, Mbale, a coffee-producing area, is dubbed the business hub of eastern Uganda; its proximity to Kenya allows for easier trade. Economic opportunity in the town has spurred migration, which in turn has triggered rapid population growth and the development of new settlements that are stretching the capacity of current service providers (town councils and the NWSC).

15. The GoU, UNHCR, and other DPs have come together to provide a more comprehensive development response to WSS delivery challenges in districts hosting refugees. Uganda is one of the few countries in the world that is piloting the UNHCR's Comprehensive Refugee Response Framework (CRRF).¹⁹ Uganda has developed a multi-stakeholder Refugee and Host Population Empowerment (REHOPE) Strategic Framework to harmonize development approaches and programming among partners. Improving WSS service delivery in the West Nile districts hosting refugees is key to delivering on the CRRF and REHOPE agenda. At a recent Water, Sanitation, and Hygiene (WASH) stakeholder forum, a consensus was reached between the UNHCR, Office of the Prime Minister (OPM), and MWE that humanitarian assistance should transition from emergency response toward long-term sustainable development solutions. In that context, given that refugees in settlements currently do not pay for water, the UNHCR and OPM are collaborating with the MWE on designing a new water tariff policy for refugee settlement areas.

16. The World Bank is well positioned to support the water sector program in Uganda and has a long history in the Ugandan water sector. The World Bank recently financed the Lake Victoria Environmental Management Project II (LVEMP II, P100406) and is currently financing the Water Management and Development Project (WMDP, P123204). These projects finance major water-related investments in priority urban areas and various measures to improve IWRM planning and development. The World Bank also has experience in the rural sector through the Uganda Water Small Towns and Rural Growth Areas Project (P102462), which provided TA and capacity building for the development of the water sector. The proposed Integrated Water Management and Development Project (IWMDP, the Project) builds on the achievements of the WMDP, paying special attention to the vulnerable Northern

¹⁹ The CRRF aims to provide a more predictable and sustainable response that benefits both refugees and host communities by linking humanitarian and development efforts early on. The CRRF strengthens inclusive service delivery while calling for more robust and expanded planning and opportunities for durable solutions and includes a 'whole of society' approach, involving a broad range of actors and new partnerships.



and Eastern regions, districts hosting refugees, and areas with low WSS coverage.

Higher-Level Objectives to which the Project Contributes

17. **The proposed Project will support the GoU's Vision 2040, which aims to transform Uganda into a modern and prosperous country.** The Second National Development Plan (NDP II), which is aligned with Vision 2040, focuses on promoting inclusive economic growth and achieving the United Nation's Sustainable Development Goals (SDGs), including SDG #6, 'Ensure availability and sustainable management of water and sanitation for all.' The NDP II also identifies the following priority actions: (a) increasing the stock and quality of strategic infrastructure to accelerate the country's competitiveness; (b) engaging human capital development; (c) strengthening mechanisms for quality, effective, and efficient service delivery; and (d) improving refugee management and host community development. Water is at the center of the NDP II, which highlights interventions focused on (a) improving WSS services in priority, northern large towns envisioned as economic regional hubs; (b) expanding WSS access to the poor and vulnerable in underserved areas, including districts hosting refugees; and (c) strengthening water sector institutions to improve IWRM and service delivery.

18. **The Project also supports the GoU's strategy, as documented in the NDP II, CRRF, and REHOPE, for a holistic and sustainable development approach for refugee management and host communities.** The GoU's primary focus is to complement humanitarian aid with long-term development investments for districts hosting refugees to address the needs of refugees while building resilience in the host communities. To that end, the Project will focus on the most vulnerable districts hosting refugees in the West Nile and Northern region and support long-term WSS investments in infrastructure development, planning at the district level, and capacity building to enable the local governments to better promote sustainable development and peaceful cohabitation among refugees and host communities.

19. **The Project is consistent with the World Bank's 2016–2021 Country Partnership Framework (Report No. 101173-UG, discussed by the Executive Directors on April 21, 2016).** The Project directly supports 'Objective Four: Enhanced Resilience of the Poor and Vulnerable' by improving access to WSS services in districts hosting refugees and other vulnerable towns and rural areas as well as implementing CMPs focused on protecting water sources and agriculture production against droughts and floods, environmental degradation, and other impacts of climate change. The Project also directly supports 'Objective Six: Improved Access to Urban Services' by financing WSS investments to improve coverage, quality, and efficiency of service in prioritized large and small towns.

20. **The Project supports achievement of the World Bank's twin goals of eliminating extreme poverty and promoting shared prosperity.** Investments in water infrastructure act as catalysts for local development and economic activity. Bringing higher quantities and more reliable water to households enhances quality of life by (a) reducing the time and effort to collect water—a task that women and children are usually responsible for, (b) reducing the incidence of waterborne diseases, and (c) diminishing absenteeism from work and school and the associated lost income and opportunity costs. In addition, the Project will assist in improving IWRM and bringing WSS services to the residents of the underserved and vulnerable Northern and Eastern regions.

C. Proposed Development Objective(s)



Development Objective(s) (From PAD)

The Project Development Objective (PDO) is to improve access to water supply and sanitation services, integrated water resources management, and operational performance of service providers in Project areas

Key Results

- Direct Project beneficiaries (number), of which female (percentage) and refugees (percentage)²⁰
- People provided with access to improved water sources by the Project (number), of which female, refugees, and citizens in host communities (number)
- People provided with access to improved sanitation services by the Project (number), of which female, refugees, and citizens in host communities (number)
- Area under integrated water resources management in selected catchments supported by the project (ha)²¹
- Percent of the service areas that achieve cost recovery ratio of 1.1 by the project ²²

D. Project Description

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

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

23. The Project includes the following four components.

²⁰ Direct beneficiaries that are receiving a direct benefit from water supply investments, sanitation investments and water resources measures.

²¹ Area refers to the size of land under improved water/land management, including but not limited to farms, river banks, catchments/micro catchments, intakes, and so on. Measures include soil and water conservation, flood protection, afforestation, and livelihood improvement schemes as per agreed CMPs.

²² Cost recovery ratio is the revenues collected over operating expenses for selected service areas supported under the project.



Component 1: WSS in Small Towns and RGCs and Support to Districts Hosting Refugees (US\$159 million, of which National IDA US\$112 million and IDA 18 Sub-Window for RHC US\$ 43 million)

Subcomponent 1.1: Support to Small Town and Rural Growth Centers

24. This subcomponent will support activities to improve WSS in selected small towns and RGCs²³ in the recipient's territory. Activities consist of (a) constructing and rehabilitating WSS facilities, as well as providing associated services, including engineering, environmental and social studies, and supervision of construction activities; (b) preparing and implementing sanitation plans in selected small towns; (c) strengthening the capacity of UWA²⁴ in the areas of operational and financial management, including the establishment of a remote monitoring system for rural water systems; and (d) carrying out environmental and social management-related activities to protect water sources and sensitize communities.

Subcomponent 1.2: Support to Districts Hosting Refugees

25. This subcomponent will support activities to improve WSS in selected districts hosting refugees. Activities consist of (a) constructing and rehabilitating WSS facilities, as well as providing associated services, including engineering, environmental and social studies, and supervision of construction activities; (b) preparation and implementation of sanitation plans; (c) strengthening the capacity of selected UWAs in the areas of operational and financial management, including the establishment of remote monitoring system for rural water systems; (d) carrying out environmental and social management-related activities to (i) protect water sources and sensitize communities; and (ii) address the specific needs of host communities and refugees; and (e) strengthening the capacity of the MWE to develop and carry out WSS sector policies and programs that promote more sustainable and efficient service delivery at refugee settlements.

Component 2: WSS in Large Towns and Support to a District Hosting Refugees (US\$118 million of which national IDA US\$75 million and IDA 18 Sub-Window for Refugees and Host Communities US\$ 15 million)

Subcomponent 2.1: WSS in Urban Large Towns

26. This subcomponent will support activities to improve WSS. Activities consist of (a) constructing and rehabilitating WSS infrastructure in the municipality of Mbale, including the recommendations from the Alternative Water Supply Study; (b) constructing water supply system for the municipality of Gulu²⁵; (c) undertaking construction supervision activities and engineering, as well as environmental studies, including the Alternative Water Supply Study; (d) strengthening the capacity of the NWSC in the areas of

²³ Small towns mean any of the following areas of the recipient's territory: Busia, Namungalwe-Kaliro, Kyegegwa-Mpara-Ruyonza, Namasale, and Butaleja- Busolwe and Budaka - Kadama-Tirinyi-Kibuku. RGCs means any of the following areas: Kasese cluster (Kyarumba, Kyondo, Lake Katwe, and Kisinga); Bitsya -Kurungu; and 30 RGCs benefiting from solar-powered piped water systems.

²⁴ Selected UWA refer to five regional UWA (Northern, Midwestern, Southwestern, Central, and Eastern) appointed as the water authorities in charge of specific water and sanitation service areas as gazetted by the MWE on July 14, 2017 (The Uganda Gazette, Volume CX No. 39).

²⁵ The Gulu Water Supply subproject includes a parallel financing with Kreditanstalt für Wiederaufbau (KfW) Development Bank to finance the water intake, water source protection, and water treatment plant. The KfW credit to the NWSC has been approved.



operational and financial management to support improved performance in the project supported areas; and (e) carrying out environmental and social management-related activities with a view to protecting water sources and sensitizing communities.

Subcomponent 2.2: Support District Hosting Refugee

27. This subcomponent will support activities to improve water supply and sanitation in Adjumani Town.²⁶ The activities consist of: (i) constructing and rehabilitating water supply and sanitation facilities, as well as providing associated services, including engineering, environmental and social studies and supervision of construction activities; (ii) preparation and implementation of sanitation plans; and (iii) carrying out of environmental and social management related activities to protect water sources and sensitize communities.

Component 3: Water Resources Management (US\$ 25.5 of which national IDA 25.0 million)

28. This component will support catchment management and restoration activities in selected subcatchments. Activities consist of (a) undertaking catchment management measures, including soil and water conservation, flood mitigation, riverbank protection and restoration, and (b) providing alternative livelihoods for affected communities.

29. Supporting integrated water resources management into the GoU's Water and Environment Sector. Activities consist of (a) preparing a water resources strategy for the Albert WMZ,²⁷ (b) preparing CMPs and related technical studies for priority subcatchments, (c) undertaking a national groundwater management study, and (d) strengthening water resource monitoring and information systems, including (i) the installation of Water Information System (WIS) at the national and WMZ levels, (ii) the installation of hydrologic monitoring systems, and (iii) the rehabilitation of the National Water Quality Reference Laboratory.

Component 4: Project Implementation and Institutional Strengthening (US\$ 5.5 of which national IDA 5.0 million)

30. This component will finance Project implementation and coordination support activities. Activities consist of (a) coordinating, planning, monitoring, reporting, and supervision of the Project; (b) providing training to implementing agencies (IAs) on World Bank FM, procurement, environmental and social policies and procedures; and (c) establishing the Project Support Team (PST).

31. The component will also support institutional strengthening activities, including (a) preparing a WSS sector financing study to support the implementation of the recipient's Sector Strategic Investment

²⁶ Adjumani Town refers to a NWSC service area that includes Adjumani Town and Pekele Subcounty, which are in Adjumani District, a District Hosting Refugee.

²⁷ Uganda is divided into four WMZs—the Upper Nile, Kyoga, Albert, and Victoria. The current WMDP has focused mainly on two zones—the Upper Nile and Kyoga WMZs—while the LVEMP II has focused on the Victoria WMZ. The proposed Project will provide support for the Albert WMZ, which lies in the western part of Uganda and is characterized by a high topography as well as a high potential for hydropower generation and water supply through gravity-fed systems.



Plan (SSIP) and (b) strengthening the MWE's regulatory functions at the regional level.

E. Implementation

32. **The Project will use the same implementation arrangements as the WMDP, which utilizes existing GoU systems and structures.** The MWE and the NWSC are the IAs for the IWMDP. The relevant departments of the IAs will be responsible for operational-level activities, including coordination, FM, monitoring, and supervision of their respective component activities. The MWE's Urban Water Supply and Sanitation Department (UWSSD) and Rural Water Supply and Sanitation Department (RWSSD) will have overall responsibility for Component 1, the NWSC through its Planning and Capital Development Division (P&CDD) for Component 2, the MWE's Directorate of Water Resources Management (DWRM) for Component 3, and the MWE's Department of Commissioner Water and Environment Sector Liaison Division (WESLD) for Component 4. The MWE and the NWSC will appoint focal points to oversee implementation of the main activities. These focal points will report directly to department heads on implementation progress. The existing decentralized management structures (WMZs, NWSC town offices, and UWAs) and local governments will support the IAs in their efforts to deliver outputs in each of the Project areas. The implementation arrangements are considered adequate. Under the WMDP, the NWSC and the MWE (UWSSD, DWRM, and WESLD) satisfactorily implemented WSS and water resources activities and accumulated extensive experience with World Bank implementation procedures. However, both IAs have experienced some weaknesses on procurement and contract management (refer to paragraph 70). The MWE's RWSSD recently implemented a large rural water supply project funded by the African Development Bank (AfDB). The NWSC has a close working relationship with the MWE that will enable synchronization in the implementation of related activities. The Project will also support the hiring of key personnel and provide training to build implementation capacity. A detailed implementation arrangement description is provided in Annex 2.

33. As the NWSC is a corporation with its own identity, it will sign a subsidiary agreement with the Ministry of Finance, Planning, and Economic Development (MoFPED) to facilitate Project implementation. The agreement will specify the amount to be allocated to the NWSC to undertake specific activities under component 2 and will define the terms and conditions. The signed subsidiary agreement is a condition of effectiveness.

34. **Coordination mechanisms.** Given the number of departments (the MWE's UWSSD, RWSSD, DWRM, and WESLD, and the NWSC's P&CDD) involved in the Project, the MWE's WESLD will take the responsibility for overall coordination and communication. The WESLD will liaise with the different implementation teams to coordinate planning, reporting, supervision, and oversight across departments involved in the Project. The WESLD will engage a PST comprising key technical specialists (for example, safeguards, monitoring and evaluation (M&E), procurement, and FM specialists) to assist the MWE and NWSC's focal points. The PST will provide support to the WESLD, assisting all Project implementation departments, units, and agencies to carry out specialized tasks. The PST will also be responsible for consolidating plans, developing budgets, monitoring results, compiling reports, and disseminating outputs and outcomes. For the implementation of the districts hosting refugee subcomponent, the MWE will liaise with the OPM and UNHCR to ensure a coordinated response to refugee inflow, resettlement, and protection issues.

35. The Water and Environment Sector Working Group (WESWG) and relevant governing bodies (for



example, the NWSC Board of Directors) will provide high-level operational and policy guidance to ensure that the Project components and activities are implemented as intended. The WESWG members include leaders from the MWE, the NWSC, and other line ministries as well as all DPs who are active in the water and environment sector. The WESWG will facilitate coordination of Project activities with other DPs who are supporting complementary activities.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

Components 1 and 2 have a keen focus on the northern and eastern regions where impacted by severe water scarcity and low socio-economic living conditions, and also areas in the central and western regions that have low water coverage and high cholera cases. These components support water and sanitation infrastructures and water source protection measures in the following areas: (i) urban small towns of Busia, Namungalwe-Kaliro, Kyegegwa-Mpara-Ruyonza, Namasale; (ii) rural growth centers in Kasese and Buhweja districts; (iii) refugee hosting districts in the West Nile region - Yumbe, Adjumani, Moyo, Lamwo, and Adjumani II-Pakele; and (iv) two large towns – Gulu town and Mbale (main town and nearby small towns). Component 3 will include catchment management measures in four degraded sub-catchments in the Upper Nile WMZ (Kochi and Aswa II sub-catchments) and Kyoga WMZ (Lwakhakha and Awoja sub-catchments) where most of the proposed WSS infrastructure will be located supporting the sustainability of the investment. The four sub-catchments were identified as “hotspots” based on high population pressure, poor land use management practices and wetland encroachment leading to excessive land degradation and water quality and quantity challenges. The project area has mainly a humid and semiarid climate. Rainfall is bimodal in nature. The wet season starts from March until May. The wettest season occurs during August to October whereas the dry season runs from December to March. The average total rainfall is 1250 mm per year, but level of rainfall can be significantly less in the northern region. Land use is characterized by a decline in forest and grassland cover, degradation of wetlands, an expansion of built-up land and farmland. The overall area also has suffered from increasing frequency of floods and droughts due to climate change. The proposed activities are not located in environmental sensitive areas or in areas where indigenous population live. The project interventions in the refugee hosting districts of the West Nile area are among the poorest in the country and are still in the early stages of recuperating from a protracted civil conflict. The Project will also focus on the relationship between host communities and refugees to address the main sources of conflict and co-existence in the relationship for achieving a peacefully relationship.

G. Environmental and Social Safeguards Specialists on the Team

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



SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The Project supports a range of infrastructure investments, including construction and rehabilitation of water supply and sanitation (WSS) systems, integrated water resources management (IWRM) measures, and rehabilitation of water quality laboratories, among others. Water supply systems will consist of piped water supply schemes either fed by surface water (river/lakes) or high-yield boreholes run by solar-powered. They will also include intake structures for surface water, water treatment plants, storage tanks, and water mains and distribution networks. Activities related to sanitation facilities will consist of construction, rehabilitation and expansion of wastewater lagoon systems in Mbale municipality, faecal sludge treatment facilities (FSTFs) in small towns, sewer networks, and communal on-site sanitation facilities in markets and schools. A majority of the project interventions are small to medium scale. The largest interventions are in the Gulu Municipality (pop. 300,000) with the construction of a new surface water supply system of 30,000 m³/day and the Mbale Municipality (pop. 163,314) with the construction & rehabilitation of water supply works and sanitation facilities.</p> <p>Category. The IWMDP is assigned an EA Category B given that significant adverse environmental and social impacts are not expected due to the nature of the proposed activities described above, i.e., interventions are mainly small to medium scale. This conclusion was based on a thorough review of specific subprojects (Mbale WSS, Busia WSS, and Gulu Water Supply) and after taking into account of the environmental and social screening of potential subprojects conducted under the Environmental and Social Management Framework (ESMF). The anticipated negative impacts are expected to be localized, site-specific, and ranging from small to moderate in scale. For instance, Mbale and Busia subprojects (projects with detailed designs), significant impacts are not expected from (i) surface</p>



water abstraction on downstream users and ecological biota because minimum environmental flow, as in the case of Namatala River, will be maintained through augmentation of the source and/or reducing the water services to an acceptable level; (ii) biosolids generation and treated wastewater discharges on water quality and land degradation, and (iii) from influx of labor in project areas. Refer to Section A,1 for a summary of potential impacts. The same nature and scale of impacts are anticipated in Gulu and in other future subprojects. On the Gulu subproject, the assessment concluded that the Gulu intake will not rely on the performance of the Karuma Dam (currently under construction). Refer to OP/BP 4.37 for additional information. In addition, the Project is expected to have minimal landtake and physical displacement of Project-Affected Persons (PAPs). Refer to OP/BP 4.12 for additional information.

In summary, the Project is not anticipated to generate any potential large scale, significant and/or irreversible impacts, as none of the planned project activities will be located in environmentally sensitive areas. All project negative impacts are expected to be mitigated with known technology, good practices and management solutions that will result in residual impact of minor significance. Refer to Section A, 4 for a summary of mitigation measures.

Given the above justification of EA Category B for IWMDP, any subproject that will be screened as Category A will be excluded from financing unless the project is restructured to make way for the financing of such subprojects.

Safeguards instruments. Compliance will be ensured through diligent application of an ESMF and site specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs).

For subprojects that have complete detailed engineering designs (e.g., Mbale WSS including nearby small towns under component 2 and Busia WSS under component 1.), site specific ESIAs/ESMPs



have been undertaken, consulted upon, reviewed and cleared by the Bank, and disclosed both in country and on the Bank external website in July 2017.

The Mbale ESIA was initially approved by the World Bank on July 7, 2017 and disclosed in-country and on the World Bank's external website on February 3, 2018. Further review was undertaken by the Bank during March to April 2018 and the revised version was cleared by the Bank on May 7, 2018 and redisclosed in country and on the World Bank's external website on May 9, 2018.

Busia ESIA was initially cleared by the World Bank on July 20, 2017 and disclosed in country and on the World Bank's external website on October 13, 2017. However, three key changes in the site location of the components of the system (Water Intake, Water Treatment Plant (WTP) and FSTF) were made and required updates to be made to the ESIA. Those were carried out and the revised document was cleared by the Bank on April 26, 2018. and redisclosed in country and on the World Bank's external website on May 3, 2018.

For all other subprojects included under Components 1, 2, and 3, and for which detailed feasibility and design studies have yet to be undertaken, the Client prepared an ESMF, which was cleared by the Bank on March 16, 2018 and disclosed in country and on the Bank's External Website on March 22, 2018. The ESMF will guide all of the environmental and social assessments that will be undertaken by the implementing agencies and Contractors, including auxiliary facilities such as workers' camps, equipment storage yards, acquisition of construction materials, etc.

Because some project activities are proposed in and around refugee hosting communities, the ESIA's will have a strong Social Assessment component to inform the final design of the subprojects and to guide the formulation of effective environmental and social mitigation measures.



The project will also apply the World Bank Industry Specific Water and Sanitation EHS Guidelines. In addition, , the World Bank has put in place a set of Environmental, Social, Health and Safety (ESHS) Enhancements for Standard Procurement Documents (SPDs) and Standard Bidding Documents (SBDs) which shall be applicable for all new works contracts for which the relevant SBD/SPD are used. The contractor ESMP is also required to include Labor Influx Management Plan and Worker’s Camp Management Plan.

Performance Standards for Private Sector Activities OP/BP 4.03 No

Private sector activities are not included in this Project.

Natural Habitats OP/BP 4.04 Yes

Given the nature of the proposed project as explained under OP 4.01, no significant conversion (loss) or degradation of natural habitats, either directly (through construction) or indirectly (through human activities induced by the project) is anticipated through project activities. However, OP/BP 4.04 has been triggered as the project will involve catchment management measures and some of the investments may involve afforestation, reforestation and improvement of watersheds. In addition, most of the WSS activities will either abstract water from rivers/lakes, which could affect environmental flow downstream, and discharge treated wastewater effluent into waterways, which could affect water quality and aquatic ecosystems. During construction, the civil works may affect the waterways (turbidity, siltation, sedimentation, etc). All subprojects will include/encompass natural habitats assessment and mitigation under the given subproject ESIA/ESMP to manage impacts on any natural habitats. The project subcomponent design will ensure that any discharged effluent from project implemented wastewater or FSTFs will meet appropriate local effluent standards for treated wastewater/fecal sludge, prior to discharge into the natural environment. The project will also ensure minimum environmental flow for rivers tapped as sources of water. 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/ESMPs
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	<p>The policy is triggered due to the possibility of chance finds of physical cultural resources during construction. Any potential impacts on physical cultural resources will be addressed by incorporating reporting, handling procedures and management as part of site specific ESIA/ESMP. PCRs inventory shall be integral part of ESIA process, and appropriate mitigation measures be developed under the ESMP.</p> <p>The Mbale RAP identifies seven graves that will have to be relocated and includes three measures to handle displacement of graves: (i) cash compensation based on approved Uganda's district rates, (ii) transport assistance, and (iii) financial assistance for rituals/ceremonies involved in relocation of cultural resources. The Busia ESIA and RAP did not identify graveyards, cultural areas, or archaeological sites. The Mbale and Busia ESIA and the project ESMF include chance finds procedures as precautionary measures in case there are chance finds during excavations.</p>
Indigenous Peoples OP/BP 4.10	No	After a review of the proposed subprojects, it was concluded that the proposed interventions will not be undertaken in areas occupied by indigenous people. The project conducted a screening in all participating districts and confirmed that there are no IPs in those districts.
Involuntary Resettlement OP/BP 4.12	Yes	<p>The policy is triggered because of the potential negative 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. The Client has prepared a Resettlement Policy Framework (RPF), which has been publicly consulted upon and disclosed in-country and on the World Bank website on March 13, 2018.</p> <p>Specific Resettlement Action Plans (RAPs) for the Mbale and Busia water supply and sanitation</p>



projects were cleared by the Bank in 2016. During project preparation, the client submitted updated versions which were again cleared by the Bank on April 17, 2018 (Mbale RAP) and on April 24, 2018 (Busia RAP) and disclosed (In-country and on the World Bank external website) on April 26, 2018.

Significant adverse impacts are not expected. The Project is expected to have minimal landtake and physical displacement of Project-Affected Persons (PAPs). A majority of the works will consist of pipe laying that will lead to temporary impacts and be confined to existing road reserves and as such, minimal landtake is expected with main impacts consisting of disruption of economic activities. Fences, walls, kiosks, and crops would be the type of assets mostly be affected by the Project. Very few homes and businesses will need relocation as a result of the anticipated works (i.e. reservoirs, fecal sludge treatment, and water treatment systems). RAPS for two subprojects (Busia and Mbale) with detailed designs indicate that for Mbale, 919 (PAPs) are expected, of which 4 households will be physically displaced and the rest being temporarily affected by economic displacement. For Busia, the RAP has identified 173 PAPs who will all face temporary economic displacement.

All relevant instruments (Mbale and Busia RAPs and RPF) include specific recommendation and guidelines to mitigate the impacts on PAPs, including provision for special assistance to vulnerable population, as well as adequate implementation budget that includes resettlement costs, income restoration payments, and RAP management budget.

Safety of Dams OP/BP 4.37

Yes

OP 4.37 is triggered as the project will finance rehabilitation and construction of small dams (i.e. dams below 15m in height, 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 the standard



dam safety measures. The environmental and social impacts of these small dams will be assessed to confirm that these dams pose no or negligible risk to communities and assets. The project will ensure qualified engineers are used to design these dams.

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). The intake and water treatment plant would be financed by KfW and the Bank would finance associated transmission and distribution pipelines.

Projects on International Waterways
OP/BP 7.50

Yes

The policy is triggered since some of the activities encompass international waters including the River Nile and the Lake Victoria, which is part of the River Nile Basin. In accordance with OP 7.50, on January 15, 2018, the Nile Basin Initiative notified riparian states on behalf of GoU and requested comments no later than March 11, 2018. Rwanda responded with a no objection to the Project. No comments have been received from other states by the due date. To conclude this process, a memorandum to the Regional Vice President (RVP) summarizing the results of Riparian Notification was submitted by the World Bank task team. The RVP cleared the memorandum.

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

Projects in Disputed Areas OP/BP 7.60

No

OP 7.60 is not triggered as there are no known disputes over the project area of Uganda.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The Project will largely generate positive impacts contributing to public health, economic growth, and environmental sustainability through (i) rehabilitation and construction of centralized wastewater systems, faecal sludge treatment facilities, and on-site sanitation facilities to reduce contamination of surface water, groundwater sources and drinking water networks; (ii) reducing the discharge of untreated wastewaters to land and waterways; (iii) increasing coverage and improving service quality of drinking water systems and (iv) promoting sustainable catchment management of watersheds.

There are no anticipated large scale, significant or irreversible negative environmental impacts associated with the Project. However, implementation of the Project may result in potential adverse environmental and social impacts. Potential impacts during construction may 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 (labor influx). The impacts during construction phase will be temporary while works are carried out. During the operational phase, the potential risks include unpleasant odors and noise from the operation of sanitation facilities; sludge management and wastewater effluent discharges that exceed standards; possible impacts on surface and/or ground water due to leakages from the facilities (sewers, manholes, ponds, and septic tanks) as a result of storm flows overloading the system; and impacts of water abstraction on environmental flows and aquatic ecosystems, including migratory fish species. All project adverse impacts are expected to be mitigated with known technology, good practices and management solutions. Some of the identified measures are summarized below.

Mbale WSS subproject: The likely negative environmental and social impacts for Mbale subproject include potential impacts on freshwater biota and downstream users from reduction in minimum environmental flow during low flows/dry season, degradation of land and soil erosion, pollution of water resources generation of noise improper handling of AC pipes and accessories improper management of waste air/dust emissions occupational health safety (OHS) risks public safety issues, pressure on existing resources, landscape and land use impacts, social misdemeanor by construction workers, disruption of communication routes, loss and degradation of natural habitats, disruption to public utilities, land-take, and septage disposal. There is also the impact on natural resources of WWTPs in Mbale Municipality if these systems are not adequately operated.

In relation to the environmental and social impacts of the new water intake structure at the Namatala River to feed



the Bungokko WTP, the ESIA suggests enough water is available to meet water demand by year 2040 (0.313 m³/s) for most of the year. However, Namatala's dry weather flows in some cases may not be sufficient to meet projected water demand and maintain an adequate environmental flow (EF). Therefore, downstream users and aquatic biota could be affected if minimum EF is not maintained. In addition, the Mbale service area may not have sufficient water to meet its water needs during the dry season. Mitigation measures are included in Section 4 below.

Busia WSS subproject: Identified impacts are similar to the Mbale subproject. The impact on hippopotamus at the water treatment plant site was identified as a key impact that needs to be adequately mitigated. The ESIA also highlights the potential of eutrophication in the FSTP receiving stream (i.e., Okame stream) if the discharge effluent is not adequately managed given that there are no natural wetlands to polish the treated effluent.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The long term socio-environmental benefits of a reliable supply of and access to safe potable water and sanitary facilities will reduce morbidity and increase productivity of households and enrollment of children in educational institutions. Moreover, project development and operation in the municipality and small towns or rural growth centers will enhance economic opportunities and attractions of other services. Furthermore, water resources measures will contribute to water security and overall climate change adaptation.

Potential risks will depend on adequate operation of the water supply and sanitation facilities. To that end, the project operation and maintenance (O&M) strategy is considered adequate and reliable given that NWSC, a good performer utility with established procedures and vast experience, will be responsible for most of the participating small and large towns. The Umbrella Organizations (UOs) will take the responsibility of participating rural growth centers. Although the UOs is a new management model, there is high confidence on their success given (i) solid operational experience from current supporting role, (ii) strong alignment with GoU's strategy to improve O&M in RGC and small towns, and (iii) technical and financial assistance through this Project, MWE, and other partners to ensure adequate service provision.

Cumulative impacts of multiple subprojects as well as potential activities are not envisioned primarily due to the following:

- The proposed subprojects are geographically dispersed; water supply systems will withdraw from different water sources; and wastewater treatment systems will discharge in different and separate waterways. Furthermore, wastewater systems are designed to meet effluent standards. Only a limited number of communal sanitation facilities per town (for markets and schools) are proposed and their location will follow design standards to avoid contamination of waterbodies;
- Water supply systems will be designed based on technical studies following Ministry of Water and Environment's (MWE) guidance to ensure safe yield from groundwater and surface water resources. In addition, the Project will finance a national groundwater management study to support implementation of groundwater development and management strategies to regulate and control activities (including additional borehole drilling) that might compromise groundwater availability and quality;
- The avoidance and mitigation of cumulative impacts requires avoidance and mitigation of the impacts of individual projects; careful planning, based on sound technical knowledge, of the location, size, and material requirements of infrastructural projects, within the district and regional planning cycles. As indicated above, individual



sub-projects are expected to generate potential negative impacts, but they can be reversed, largely of temporary nature and scope, and can be easily and cost-effectively mitigated.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

For works that have not been defined, master plans, feasibility studies and designs are being conducted following the guidelines of the ESMF and RPF, which require an evaluation of alternatives that would meet similar objectives considering environmental social, economic and technical aspects. For the case of the works that are defined, several alternatives were considered:

Mbale WSS Project. For the Mbale town water supply, the project evaluated four main rivers for raw water supply to meet projected 2040 water demand and conducted cost analysis and hydraulic models to determine pumping versus gravity type systems. To supply water to the nearby small towns, two options were evaluated: gravity water supply from the Mbale water supply system or a decentralized system with boreholes. The sewer expansion also evaluated two options (lift station versus gravity sewers) to connect the Senior Quarters neighborhood to the existing wastewater management system. In addition, the NWSC will carry out an Alternative Water Supply Study prior to construction of the Mbale subproject to evaluate options to augment water source at the Namatala river system. The options will include, among others but not limited to: (i) construction of a water impoundment structure at the Namatala intake site to store water during high flows and sustain the water demand during the dry spell, (ii) construction and rehabilitation of boreholes in the small towns, (iii) expansion of Manafwa water supply system, and (iv) a reduction in water service delivery at acceptable levels. There are not considered individual solutions, but complementary and inclusive. The study will include specific recommendations and an implementation plan and the recommendations will be financed under the IWMDP.

Busia WSS Project. ESIA and RAP identified project alternatives including site locations for the water intake structure, water treatment plant and FSTF processes. Alternatives considered technology options for coagulation, filtration and disinfection at the water treatment plant. For the wastewater management solution, FSTP versus a centralized sewerage system was considered as well as various treatment technologies, including activated sludge, constructed wetlands, and stabilization ponds.

For both cases the ESIA includes an evaluation of the no action option vs the implementation of the project indicating that the overall benefits outweigh the potential adverse impact.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Borrower has prepared Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF), as well as specific ESIA/ESMPs and RAPs for the Mbale and Busia water supply and sanitation projects. ESMF and RPF are to be used by key implementing actors to guide screening and preparation of specific instruments for subprojects whose designs will be prepared during implementation. Specifically, the main purpose of the ESMF is to (i) establish clear procedures and methodologies for the environmental and social assessment, review, approval and implementation of investments to be financed under the project; (ii) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to project investments; (iii) determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF and the subsequent ESIA/ESMPs, as applicable; and (iv)



provide practical information on resources required to implement the ESMF requirement. The RPF outlines the principles and procedures to be followed in the event of land acquisition, impact on assets and/or loss of livelihoods. The Borrower has also adopted the Bank's ESHS procedures for standardization in procurement documents and is committed to its application and enforcement through contract management of works contractors and supervision consultants.

The Borrower is also committed to citizen engagement and Grievance and Redress Management. Community participation and beneficiary engagement including refugees will be sought throughout the project cycle – identification/preparation, execution, and operation to foster behavior change and sustainability. These activities will be guided by the MWE's Software Steps (Steps in Implementation of Water and Sanitation Software Activities, 2012). The Software Steps will allow for a systematic application of citizen engagement activities to ensure a sense of ownership and commitment. For instance, 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. In the refugee settlements and host communities, stakeholder consultations will be conducted with local leaders and community members in collaboration with OPM and UNHCR and build consensus on issues and approaches for the project. To ensure transparency and accountability, the Borrower will continue using the grievance redress mechanism (GRM) established for the ongoing Water Management Development Project (WMDP) (P123204), which is in line with the guidance provided in the ESMF. The GRM has a clear set of goals and objectives and a well-defined scope for its interventions, especially geographical area coverage to ensure its accessibility and effectiveness. The GRM includes set of procedures for receiving, recording, and handling complaints. Depending on their nature and severity, complaints are managed by a Grievance Redress Committee (GRC) at the national level, local government level, and project implementation sites, especially for components 1-3, which have considerable infrastructure developments. Grievances shall be first reported and handled at the lowest level or project site (ie. Contractor's responsibility under its contract with the works supervisor and implementing agency), and referred to the next level if not resolved.

Borrower's capacity assessment. The Project will be implemented by two implementing agencies (IA) namely: MWE and NWSC. Regional entities (Water Management Zones, UOs), local governments and their partners (e.g. District Officers – District Environment Officer, District Community Development Officer, Municipal Environment Officers, Municipal Community Development Officers, Health Inspectors, District Engineers, etc) will support the IAs in their efforts to deliver outputs. The Project will utilize similar implementation arrangements set up for the ongoing WMDP. The MWE and NWSC have satisfactorily implemented water and sanitation and water resources management projects with the WMDP, and therefore, has accumulated extensive experience with respect to implementation of Bank safeguards procedures. 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 and Bank safeguard policies.

A rapid assessment of the capacity of IAs revealed acceptable and satisfactory levels of technical know-how within these IAs for planning, design and implementation of WSS and WRM investments and technical assistance. There are four qualified safeguards staff in each implementing agency responsible for day to day implementation and supervision of safeguards requirements for the Project. There is also a Safeguards Coordinator at the Project Support Team (PST) who will provide technical advice, consolidate the progress reports from the project safeguards specialists, monitor the implementation of the ESMF, RPF and specific safeguards documents, and liaise with the WMZ and other stakeholders (national, regional and district) on environmental and social issues related to the Project. The assessment indicates that there are dedicated and qualified staff to carry out safeguards activities. The proposed safeguards team



will manage both the current WMDP and IWMDP for an estimated overlapping period of 6 months, as WMDP closes while IWMDP is launched. The assessment concluded that there is not a need to add additional safeguards staffing at MWE and NWSC given that the WMDP is closing in December 2018 and a projected low work load in 2018 for IWMDP given effectiveness period and planning phase. However, the Bank team in coordination with the IAs will monitor and assess the need of additional staff and periodic Safeguards Capacity enhancement during implementation support missions.

The ESMF/RPF includes a section on implementation arrangement with the roles and responsibilities of key actors, technical assistance to support the capacity needs of the implementing agencies and supporting organizations (local government, consultants and contractors), and a detailed budget for the implementation of the ESMF/RPF and other social and environmental aspects. At least two training events per year will be conducted and they will be tailored to different target groups, including national implementing agencies, local and regional supportive structures, and contractors and supervision consultants. The ESMF includes tailored training and workshop programs. The Borrower is committed to implement the institutional strengthening and capacity building aspects included in the ESMF and RPF and the Bank will ensure that adequate budget is allocated to implement all proposed safeguards measures. The Contractors and Supervision Consultants shall be required to include on their teams, qualified Safeguards Staff (Environmental Specialist, Health & Safety Officer, Social Development Specialist).

From the Mbale and Busia WSS ESIA's, the following summary key mitigation measures have been recommended for implementation, and shall be incorporated in various implementation arrangements, including Bidding Documents and Contracts (Contractor's ESMPs):

- Treated effluents from wastewater treatment plants and FSTF will not generate significant impacts if the facilities are designed, operated and maintained according to design standards. The leakages from sewers, sludge drying beds and wastewater stabilization ponds (proposed in Mbale Municipality only) will be minimized by regular monitoring and maintenance of the network; connections between sewers will be made water-tight to prevent leakages of wastewater to groundwater; and frequent effluent quality monitored to avoid release of poorly treated effluents into waterways. In addition, desludging and transportation of sludge will be safely managed by the provision of training to sludge emptiers on safe sludge handling measures, monitoring and enforcement of sludge handling practices, the provision of adequate transportation and personal protective equipment, and public education campaigns about the treatment system and the required sludge management and reuse requirements. Dried stabilized sludge from drying beds will be used for agricultural reuse or disposed to a solid waste landfill (Mbale Landfill and Busia Waste Disposal site) during low demand periods. Adequate training will be provided to operators of the treatment facilities to ensure that dried stabilized sludge is only reused once it is safe for human handling and agricultural purposes (i.e. levels of pathogenic bacteria, viruses and protozoa reduced to appropriate levels). The FSTF in Busia will be designed to reduce and treat the percolate (liquid stream) before discharging to the Okame stream. In addition, at the discharge point, the IA will install markers and signages on the health risks of using the Okame stream for domestic purposes, conduct community sensitization, and provide alternative water if needed.
- All requirements for construction of the sludge drying beds, especially for providing water impermeable basins, efficient drainage system for leachate and flood protection structures like cut-off drains and small embankments will be put in place when needed.
- Unpleasant odors and noise, if any, will be mitigated by correct operation and maintenance of the plant along with siting of the facilities away from habitations – all in line with Government specifications.



- For AC pipes the environmental management plan has included management measures for the removal, packaging, transportation and disposal of existing asbestos waste, following additional guidance that will be provided by National Environment Management Authority (NEMA) for handling such hazardous materials.
- Raw water abstractions will be designed based on technical studies to ensure safe yield from groundwater and surface water resources. Minimum environmental flow for Namatala and other rivers that will be tapped by the project will be maintained and ensured. NWSC should adhere to the safest maximum abstractable water quantities throughout the project life. The Namatala water intake will be designed to allow minimum EF pass through the abstraction point. Flow monitoring devices will be installed to monitor minimum EF by NWSC and DWRM
- For the Mbale subproject, prior to construction, the NWSC will carry out an Alternative Water Supply Study to evaluate options to augment water source during low flows for Namatala and assess the reliability of the proposed water supply system. The options will include, among others but not limited to: (i) construction of a water impoundment structure at the Namatala intake site to store water during high flows and sustain the water demand during the dry spell, (ii) construction and rehabilitation of boreholes in the small towns, (iii) expansion of Manafwa water supply system, and (iv) a reduction in water service delivery at acceptable levels. The study will include specific recommendations and an implementation plan. There are not considered individual solutions, but complementary and inclusive; therefore, the final recommendation would likely be a combination of these options. The MWE and the NWSC will implement the recommendations under the IWMDP.
- Water source protection. Catchment management measures will be implemented with the aim of conserving and allowing recharge of water resources. Community sensitization regarding the water supply system and water conservation measures will be encouraged: saving water is an efficient way of reducing the overuse of ground water resources. It not only decreases the amount of the water withdrawn, but may also reduce the threat of pollution
- Awareness campaign will be launched for the residents about proper operation and maintenance of both water supply and sanitation facilities to reduce the introduction of grease, solid waste and other non-biodegradable particulates into the sewerage network and on-site sanitation facilities.
- Measures to address labor influx include (i) hiring local workforce as much as possible; (ii) active engagement with the communities, particularly targeting the vulnerable groups including women and girls, on raising the awareness of the potential arrival of external workers, requirement for contractors to draft workers's codes of conduct; (iii) include particular conditions in works contract, such as a code of conduct outlining contractor's responsibilities on workplace culture, labor influx management plan, and worker's camp management plan (iv) mandatory training for all employees on legal conducts in local communities and legal consequences for non-compliance, sensitize them not to engage in relationships with underage girls and married women, and on issues relating exploitation HIV/AIDS and STDs; and (v) maximize the distance of the camp sites from the communities and provide provision of services and entertainments within the camps to reduce the need to use community facilities and interacting with the local community, as well as providing opportunities (Periodic Leave) for workers to regularly return to their families.
- Consult the Uganda Wildlife Authority (UWA) prior to commencement of any works at the Busia Water Treatment Plant site with regard to protection of the habitat of Hippopotamus. A Wildlife Management Plan has been prepared for the project and It should be implemented by the Contractor during construction and the operator during the operation phase of the project.



- In addition, even though main water and sewer pipelines will follow the right of way for roads, road encroachment and potential works like plants, pump stations and storage tanks may have land acquisition implications and displacement (both economical and physical) that will require the design and implementation of RAPs. RAPs for Mbale and Busia have been conducted and specific issues are included in Section II above.
- The project will also apply the World Bank Industry Specific Water and Sanitation EHS Guidelines. In addition to this, the Bank has put in place a set of Environmental, Social, Health and Safety (ESHS) Enhancements for Standard Procurement Documents (SPDs) and Standard Bidding Documents (SBDs) which shall be applicable for all new works contracts for which the relevant SBD/SPD are used. The contractor ESMP is also required to include Labor Influx Management Plan and Worker's Camp Management Plan.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

To ensure that key interests of the public are addressed and incorporated into the design and implementation of the IWMDP safeguard tools, stakeholder consultations were carried out as part of the ESMF, RPF and specific ESIA/RAPs preparation processes. Consultations were undertaken using key informant interviews and focus group discussions. Questionnaires were developed to guide the discussions and community meetings were held at the village level.

For the ESMF and RPF, the main stakeholders identified and consulted include the MWE, NWSC, NEMA, UNHCR, Ministry of Gender Labour and Social Development, water NGOs, local government representatives, community leaders, local communities, and water service providers. The consultations for the ESMF and RPFs were conducted between January 15-25, 2018.

Consultative meetings and sensitisation during RAP update were undertaken with stakeholders and project-affected communities (PAPs) conducted from 18th January to 16th February 2018.

During the Mbale ESIA and RAP preparation, consultative meetings were held with NEMA, Ministry of Water & Environment officials, Ministry of Gender Labour and Social Development, Mbale District Local Government and Municipality officials, and the project-affected communities. Consultations were conducted in 2015, 2016 and in January and February 2018.

During the Busia ESIA and RAP preparation, meetings and consultations were undertaken with project-affected people (including in Maduwa A Village, Okame-Abochet Village, and settlements along the transmission pipeline), Busia District and Municipal Council Administration in 2015, 2016 and February and March 2018.

The results of the consultations are captured in the safeguards instruments (ESMF, RPF, ESIA for Mbale and Busia WSS sub-projects). Overall, community members were supportive of the Project and indicated that they hoped to see the timely completion of the works. Concerns highlighted in the consultations relate to displacement of households, land availability and ownership, land conflict, and employment opportunities from works contract. Stakeholder feedback gathered through these meetings informed the final versions of the safeguards documents. Land availability is one of the key aspects looked at during the environmental and social screening and impact assessment. All sub-projects shall therefore be screened to confirm availability of land before proceeding with its preparation. Another concern is to build capacity within local agencies on safeguards management. These concerns will be addressed in the IWMDP through the various training and capacity building initiatives proposed under Component 4 (Institutional Strengthening) which are budgeted for under the ESMF. The MWE disclosed the ESMF, RPF, Busia ESIA and RAP, while



the ESIA and RAP for Mbale was disclosed by NWSC. During project implementation, the Client will follow the guidelines for consultation and disclosure included in the ESMF for specific safeguards instruments.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
25-Feb-2018	14-Mar-2018	

"In country" Disclosure

Uganda
22-Mar-2018

Comments

The date reflects the date of disclosure for the ESMF.
Busia ESIA on April 26, 2018 and Mbale ESIA on May 9, 2018.

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank	Date of submission for disclosure
25-Feb-2018	14-Mar-2018

"In country" Disclosure

Uganda
13-Mar-2018

Comments

The date reflects the date of disclosure for the RPF.
Busia RAP and Mbale RAP were disclosed on April 26, 2018

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes



Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

Yes

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

NA

Does the project design include satisfactory measures to overcome these constraints?

NA

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

NA

OP/BP 4.37 - Safety of Dams

Have dam safety plans been prepared?

NA

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

NA

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?



NA

OP 7.50 - Projects on International Waterways

Have the other riparians been notified of the project?

Yes

If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?

NA

Has the RVP approved such an exception?

NA

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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