

From a Humanitarian to Development Approach

Uganda's Ground-Breaking Journey to Achieve Sustainable Provision of Water Services to Refugees and Host Communities

Ai-Ju Huang, David Githiri Njoroge, Lilian Otiego, and Alexander Danilenko

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Abstract

The number of refugees in Africa reached 6.9 million in 2021, nearly tripling over the past 15 years. Uganda alone hosts 1.5 million refugees, making it the largest refugee-hosting country in Africa and third in the world. Uganda has progressive refugee management policies that have welcomed refugees into the country for more than 70 years, with the average length of stay being seven to eight years.¹ The pressure on water resources and infrastructure arising from the massive inflow and protracted stay of refugees is high and cannot be sustained solely through humanitarian interventions. The provision of water services in the refugee settlements under the humanitarian context is fragmented, and the actors supporting the refugee response can no longer provide effective and quality services because of financial and capacity constraints. This paper outlines Uganda's pioneering shift from a traditional humanitarian water service model, designed for short-term emergencies, to a holistic approach that integrates refugees and host communities in long-term national development planning. It illustrates how Ugandan policy makers, the World Bank, and the United Nations High Commissioner for Refugees (UNHCR) have come together to collectively design interventions at the national and local levels that have advanced this transition. The critical analytics, tools, and road maps generated through those interventions anchored the policy dialogues, reforms, and financing mechanisms that supported the transfer of water systems and provision services from humanitarian partners to national utilities. As a result, US\$57 million of donor funds were mobilized and 50 water systems have already been transferred to national water providers, serving approximately 12 percent of the refugees and their host communities. Sharing the lessons learned from Uganda's experience with World Bank project teams, partners, and other countries managing forced displacement may be beneficial as they strive to improve provision of water services to refugees and hosting communities.

NOTE

1. UNHCR - Refugees Statistics, Access Date May 2020. <https://www.unhcr.org/refugee-statistics/>.

Acknowledgments

This discussion paper was prepared by a joint team from the World Bank and the United Nations High Commissioner for Refugees (UNHCR). It is authored by Ai-Ju Huang (Senior Water Specialist, World Bank), David Githiri Njoroge (Senior Technical Coordinator for Uganda, UNHCR), Lilian Otiego (Senior Development and Solutions Officer, UNHCR), and Alexander Danilenko (Senior Water Supply and Sanitation Specialist, World Bank).

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Abbreviations

ADA	Austrian Development Agency
AFD	Agence Française de Développement
AfWA	African Water Association
COVID-19	Coronavirus Disease 2019
CRRF	Comprehensive Refugee Response Framework
DANIDA	Danish International Development Agency
DPG	Development Partners' Group
DWD	Directorate of Water Development
EU	European Union
EU-INTRA	European Union International Partnerships
GCR	Global Compact on Refugees
GIZ	German Agency for International Cooperation
GoU	Government of Uganda
IDA	International Development Association
IP	implementing partners
IWMDP	Integrated Water Management and Development Project
KfW	German Development Bank
MoFPED	Ministry of Finance, Planning and Economic Development
MoU	memorandum of understanding
MWE	Ministry of Water and Environment
NDP	National Development Plan
NGO	nongovernmental organization
NUA	Northern Umbrella Authority
NWSC	National Water and Sewerage Corporation
O&M	operation and maintenance
OP	operating partner

OPM	Office of the Prime Minister
ReHoPE	Refugee and Host Population Empowerment
TA	technical assistance
UA	umbrella authority
UgIFT AF	Uganda Intergovernmental Fiscal TransfersAdditional Financing
U Sh	Uganda shilling
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund
US\$	United States dollar
WASH	water, sanitation, and hygiene
WatSSUP	Water Supply and Sanitation for Refugee Settlements and Host Communities in Northern Uganda
WESRP	Water and Environment Sector Response Plan
WSS	water supply and sanitation

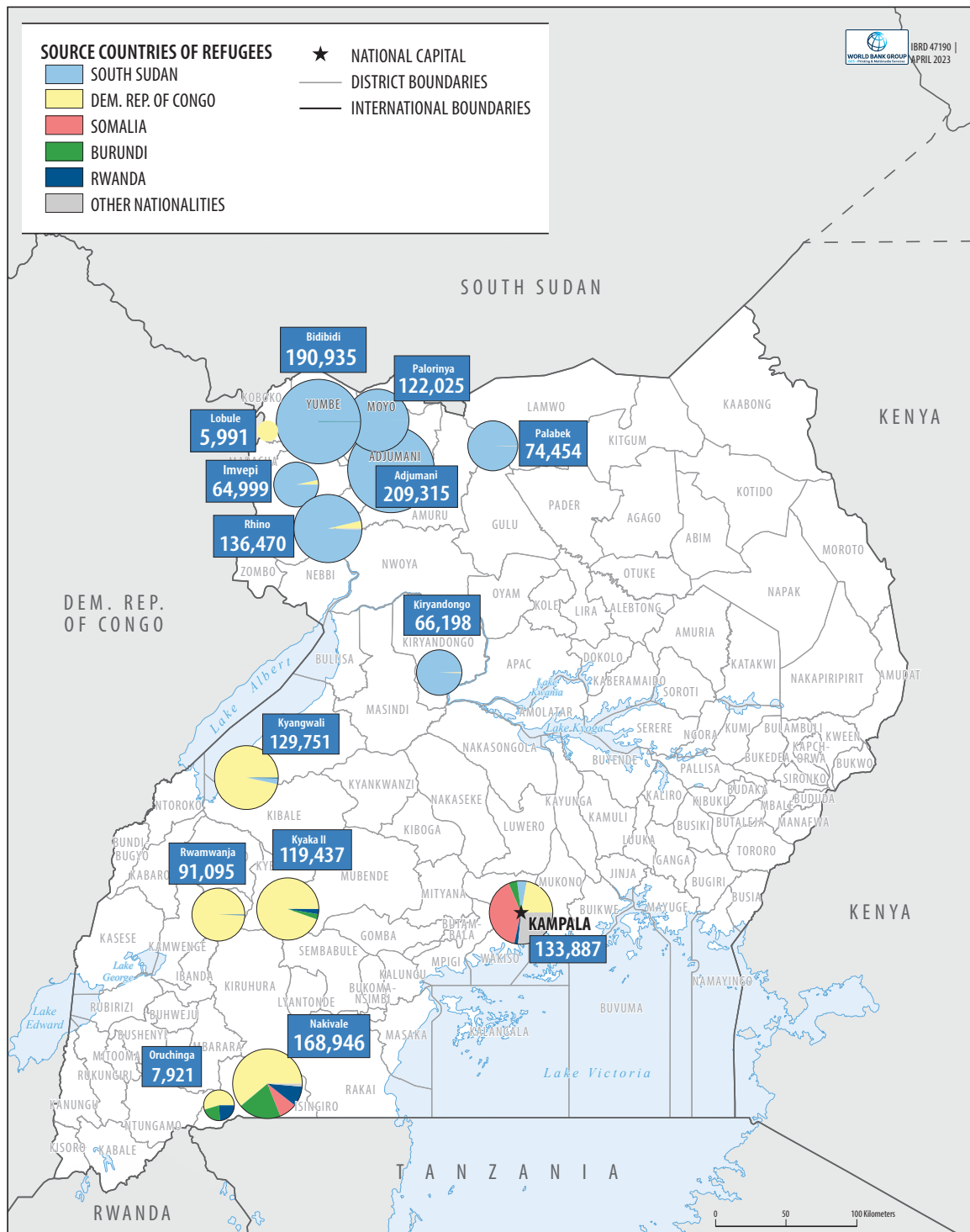
1. Introduction

The number of refugees worldwide increased to almost 26.7 million in 2022 and has more than doubled over the past decade. Developing countries host 86 percent of the world's refugees, with 6.7 million living in the least developed countries. Africa alone hosts more than 6 million refugees, of which almost half live in three countries: Uganda (1.5 million), Sudan (1 million), and Ethiopia (0.8 million) (UNHCR 2022). Globally, on average, about 76 percent of refugees are displaced for more than five years.¹ The pressure on water resources and infrastructure from these inflows and the protracted stay of refugees is high. Actors supporting the refugee response face growing financial and capacity constraints that impede their abilities to effectively provide services to refugees and host communities. The provision of water services to refugees has typically adopted a humanitarian approach. In Uganda, water and all other services were provided free of charge, fully subsidized by United Nations High Commissioner for Refugees (UNHCR)² resources. UNHCR is the de facto second-largest water service provider in Uganda, after the National Water and Sewerage Corporation (NWSC), providing water to about 1.6 million people and covering all refugees and some host communities.

Uganda, the largest refugee-hosting country in Africa and the third-largest in the world, faces a growing multifaceted crisis placing its capacities and resources under extreme pressure. As of January 2022, Uganda hosted more than 1.5 million refugees, of which a majority are from South Sudan (61 percent) and the Democratic Republic of Congo (29 percent) and the rest from Somalia (4 percent), Burundi (3 percent), and other countries (3 percent).³ Most refugees (94 percent) live in settlements in outlying and mostly underserved districts alongside the local community (see map 1.1), including 57 percent in Northern Uganda or West Nile (Adjumani, Koboko, Lamwo, Madi Okollo, Obongi, Terego and, Yumbe), 24 percent in South West (Kyegegwa, Kamwenge, and Isingiro), and 13 percent in Mid-West (Kiryandongo and Kikuube).⁴ Whereas the host community resides in small and scattered village concentrations, refugee settlements are sprawling rural zones dotted with service points mostly provided through international humanitarian aid (for example, health clinics, schools, water distribution systems, and so on). The refugee population commonly exceeds that of the immediate host population and sometimes the hosting district. More than 6 million Ugandans live side by side with refugees in hosting areas, sharing natural resources, infrastructure, and services.

Uganda has one of the most progressive refugee management policies in Africa. The model consists of an open border and settlement approach, in which refugees are not confined to a camp but are free to move around and live alongside Ugandan citizens in host communities. Upon arriving to the country, refugees are allocated plots of land for subsistence farming and shelter, are free to work, and are given equal access to government education as well as social and health services. Uganda grounds its protection for refugees in its 2006 Refugee Act and the 2010 Refugee Regulations. The former is considered the most progressive refugee law in Africa and has enabled

Map 1.1. Uganda Refugee Statistics



Source: UNHCR February 2023.

the Uganda settlement approach that provides refugees as much dignity, normality, and pathways to self-reliance as possible. The government also integrates refugee response and protection into its National Development Plans (NDPs) and into local district development plans.

The inclusion of refugees into the NDPs underpinned the current model, which applies a holistic response that enables line ministries and development partners to address the needs of refugees and host communities together. This foundation led Uganda to be one of the first countries to join the Global Compact on Refugees (GCR) and implement the Comprehensive Refugee Response Framework (CRRF) through the New York Declaration for Refugees and Migrants. The GCR provides the principles for an integrated response to refugees and ensures that the basic needs of host communities are met, including access to water supply, sanitation, and hygiene (WASH), health care, and education (figure 1.1). The CRRF Steering Committee further endorsed Uganda's application of these principles in its Strategic Direction 2021–25 to achieve a goal of a coordinated, accountable, and sustainable refugee response for socioeconomic transformation for refugees and host communities by 2025 and aim to

- Strengthen national arrangements;
- Enhance stakeholder engagement and coordination at the district level;
- Mainstream the CRRF into national planning to address the long-term impacts of hosting refugees;
- Foster regional partnerships; and
Ensure international burden- and responsibility-sharing

Uganda has also developed its CRRF National Action Plan to strengthen the application of the GCR and operationalize the CRRF Strategic Direction 2021–25. The key objectives of the National Action Plan are (a) bridging the humanitarian and development approaches in a coordinated, harmonized, and cohesive manner to address the long-term needs of both refugees and host communities and (b) promoting the resilience and self-reliance of the entire population of Uganda's refugee hosting areas and expanding durable solutions.⁴

Figure 1.1. Global Compact on Refugees Objectives



Source: UN 2018.

Unsustainable Provision of Services for Refugees and Hosting Communities under the Humanitarian Model

Uganda's significant refugee inflows have increased pressure on land, infrastructure, and social services in refugee-hosting districts. This has been particularly challenging in rural areas and small towns that suffer from inadequate infrastructure, limited social capital, low productivity, and environmental degradation.

The long-standing model of water and sanitation service provision in refugee settlements in Uganda follows a largely humanitarian approach. However, this model is often fragmented and unstable because of institutional and financing gaps, annual planning cycles, dependence on ongoing external support, and dependency and overuse of piped water—for example, for brickmaking—contributing to scarcity of this precious resource during the dry season. This also accelerates the wear and tear of associated infrastructure. In this humanitarian-centric approach, water is usually trucked in during the first three to six months to meet minimum water needs, but the high cost of doing this usually means it tapers off after six to 12 months, so humanitarian partners, managed by the UNHCR in coordination with the Office of the Prime Minister (OPM), must implement new water schemes.

As many as 40 WASH partners have been engaged across Uganda's refugee settlements in over the years. Most of the partners' interventions, implemented in response to emergency situations, have not been well coordinated. In many cases, new systems have been designed and implemented rapidly with the objective of ending water trucking as quickly as possible. In the West Nile, for example, prompted by the sheer scale of the 2016–17 refugee inflows and the imperative of saving lives, a proliferation of WASH actors mobilized resources to install disparate and incompatible water systems and then left the settlements, often within a year. These siloed water systems were often the result of substandard work, leading to functionality issues stemming from noncompliance with sector standards for infrastructure development. The variety of technical solutions employed, and the numerous flaws that were overlooked with the expectation that these would be fixed in the future, further complicated operation and maintenance sustainability.

Approximately 100 water systems were built by partners conducting refugee emergency response efforts. However, they were implemented with no consistent or integrated approach to the design and construction process and were separate from national water services. There was no coordination or oversight from the Ministry of Water and Environment (MWE) and district water offices because of limited capacity and absence of the appropriate personnel in the field, and some of the maintenance tools and spare parts were not available in Uganda, which made them difficult to service. In addition, there were no standard guidelines or bylaws to govern the management, operation, and maintenance of water supply and sanitation facilities developed by the humanitarian partners in refugee settlements. Eventually these systems were transferred to UNHCR for operational control.

Key Gaps in Provision of Water Services in the Uganda Refugee Settlements and Host Communities

- Fragmented water supply and sanitation services provision with lack of standardization of design approach and management models.
- Capacity constraints and institutional strengthening needs of Ministry of Water and Environment.
- Lack of integration of water supply and sanitation service provisions and resource and development needs in district development plans.
- Inconsistent integration of refugee population in district planning.
- Insufficiently aligned governance structures at settlement and district levels.
- Weak monitoring and evaluation mechanisms and capacity.
- Sustainability of infrastructure investments, particularly the equity dimensions and potential conflict between the refugees and host communities.

Limited information and knowledge sharing among the partners and implementing agencies, poor alignment with the governance structure, and overall capacity constraints also posed challenges. In addition, there was a lack of integrated water resource management, as settlements were yet to be integrated into catchment management plans that regulate appropriate usage of available groundwater resources. Until the end of 2017, provision of services in the refugee settlements and outside in the hosting districts were implemented independently, and on annual cycles, with little or no interagency communication and coordination among humanitarian and development partners and national counterparts.⁵

Overall, lack of coordination and implementation oversight led to the UNHCR being handed more than 100 disparate and often problematic water systems to operate and maintain, making it a de facto water utility in refugee settlements—not a sustainable solution to water supply management. It became clear that guidelines for operation and maintenance and a strategic direction for long-term sustainability were necessary.

Before 2018, UNHCR, in consultation with OPM, selected implementing partners (IPs) to execute operation and maintenance (O&M) of water and sanitation systems in all refugee settlements in one-year agreements, with the role of the MWE and its water utilities relatively minimal. UNHCR financing, secured from international partners and donors, was the main source of funding for O&M of water services in the settlements. However, this funding—and related donor supplies of construction materials, spare parts, and volunteer services—began to decline in 2017, and UNHCR has had difficulties sustaining support. Provision of services in the settlements became even more strained during the coronavirus disease 2019 (COVID-19) pandemic with border closings, lockdowns, and curfews reducing in-the-field capacity to support O&M activities. Compounding the funding shortfall, refugees did not pay user fees for water for many years, perpetuating aid dependency while also becoming a point of contention with some host community members—mostly the rural poor—because of perceptions that refugees receive preferential services when compared with Ugandan nationals.

NOTES

1. Forced Displacement, Refugees, Internally Displaced and Host Communities, <https://www.worldbank.org/en/topic/forced-displacement>
2. UNHCR coordinates partners with funding from various donors to undertake operation and maintenance (O&M) services.
3. Data are from the Uganda Comprehensive Refugee Response Portal, UNHCR, Geneva, <https://data2.unhcr.org/en/country/uga>.
4. National Action Plan 2021–22 to implement the Strategic Direction for the GCR and the CRRF in Uganda.
5. OPM allocates land, issues registration, and work permits and provides security to refugee areas. MWE does not provide geological surveys or issue licenses for water quality or services operations in the settlements.

2. Paradigm Shift to a Sustainable Water and Sanitation Provision Model

To address the service provision gaps in the refugee settlements during the rollout of the Comprehensive Refugee Response Framework (CRRF), the government of Uganda (GoU) launched an effort to overhaul the unsustainable humanitarian service delivery model to one that bridges humanitarian and development approaches. Partnering with the World Bank and United Nations High Commissioner for Refugees (UNHCR), the government began an ambitious, pioneering, and arduous reform process to improve the quality and sustainability of water service provision in refugee-hosting areas through a paradigm shift that integrates the two approaches.

Amendments to Policies, Regulatory Frameworks, and Sector Plans

The reform process kicked off with a series of policy and regulatory amendments and the development of specific sector plans. A critical consensus emerged among the Office of the Prime Minister (OPM), Ministry of Water and Environment (MWE), UNHCR, and wider humanitarian and development partners that there was a need for a policy shift from a resource-intensive, partner-based model to a national utility-based service model and that user fees in the settlements and hosting communities were necessary to sustain water services.

The GoU first concentrated on applying the CRRF to strengthen the governmental and administrative bodies dealing with refugee crises at national, regional, and local levels. Refugee management and protection were strategically included in the development of the specific CRRF Sector Plans for health, education, and water and sanitation. With the support of the UNHCR and partners, the MWE led the development of the Water and Environment Sector Response Plan (WESRP) for refugee and host communities (2019) that aligned with the National Development Plan (NDP) III 2020–25, incorporating the needs of refugees and the requirements to tackle water supply service (WSS) challenges in refugee-hosting districts. The planned interventions, totaling nearly US\$1 billion, included integrating refugee planning into the national and sectoral plans, strengthening data management, strengthening policies and systems for effective and sustainable service delivery, and improving operation and maintenance (O&M) of water systems.

Including refugee settlements in the government's water supply services requires that these settlements adopt the same service provision and management models as the rest of the country. This includes standardizing and harmonizing the water systems' design and functionality

standards with national standards and guidelines in terms of water quality and quantity; transferring management of more than 180 water schemes and service provision in the settlements and host communities from UNHCR to national water authorities; and introducing water user fees in the hosting and refugees' settlements for financial sustainability. To this end, in select settlements, OPM and UNHCR initiated monthly water user fees ranging from US\$0.14 to US\$0.5 (U Sh 500 to U Sh 2,000) per household per month, with a typical fee of US\$0.3 (U Sh 1,000).¹ Although these nominal fees do not cover O&M costs,² they are designed to introduce refugees to the idea of water user fees and to prepare them for the transition to a fee-based system. The objective was to strengthen the financial sustainability of water services and ensure that all refugees have access to them under the same terms and conditions as citizens in host communities. This is outlined in the National Water Policy and National O&M frameworks and bylaws, and this was reviewed and updated to guide future assistance in the sector, aiming for the transition of utility management for all water systems in Uganda. UNHCR adjusted its water service provision policies and O&M arrangements for the refugee settlements to align with the reform efforts.

GoU, UNHCR, and the World Bank acknowledged that the initial success of the reforms hinged on the capacity of local authorities to adopt the governance, management, and operational changes necessary to integrate water supply services in refugee settlements into the hosting districts' water systems. There are two principal entities managing WSS in Uganda: The National Water and Sanitation Corporation (NWSC) is an independent arm of the MWE managing mostly urban and periurban WSS, whereas the regional umbrella authorities (UAs) are embedded within the MWE as rural WSS operators. With the support of development partners, MWE helps develop capacity and strengthen the UAs and local governments to prepare for the transition and additional responsibilities. These efforts included ensuring that the systems transferred to the authorities be functional, meet Uganda's standards for water supply provision, and be in a condition that will not pose an immediate O&M and financial burden on the national authorities.

Realignment of Institutional Structures and Accountability Mechanisms across Ministries to Support Reform Efforts

To implement the new policies and operationalize the government-led sector response plans, GoU reviewed the institutional landscape across agencies and realigned the organizational structures to effectively support the integration efforts. Although OPM is responsible for overall refugee welfare management and protection, MWE sets national water supply, sanitation, and hygiene (WASH) policies and standards; manages and regulates water resources; and determines priorities for water development and management. In May 2019, MWE and UNHCR signed a memorandum of understanding (MoU) covering WSS and the environment, laying the foundation for engagement with the government line ministry and its agencies, including the National Environment Management Authority and NWSC. MWE coordinates with other sector partners through a WASH forum to ensure improved delivery. The MWE is also involved in the review process and approval of designs and plans for all water infrastructure, both inside and outside refugee settlements.

The reform process greatly strengthened the role of MWE in policy formulation and provision of water and sanitation services. MWE created a Refugee Response Subgroup, which serves as an entry point for all refugee WASH initiatives and coordinates and monitors the water sector's response to key challenges facing refugee-hosting districts. This subgroup anchors the refugee response within the MWE and the Directorate of Water Development (DWD), oversees the implementation of sector response plans related to refugee-hosting districts, and builds synergies among the national water development strategies to improve water supply to refugee settlements, thereby addressing long-standing coordination issues. The subgroup interacts with the OPM (CRRF Steering Group), UNHCR (WASH Platform), and development partners (Water and Sanitation Development Partner Group) on overall WASH interventions for refugees and hosts to ensure more coordinated, harmonized, and effective implementation, resulting in an improved and sustainable water service provision.

NOTES

1. U Sh 1 = US\$0.000271899 and US\$1 = U Sh 3,677.83 (as of March 31, 2023).
2. This is widely recognized by stakeholders, including refugee representatives.

3. Supporting Uganda Water Reforms through Harmonized Development and Humanitarian Interventions

World Bank Engagements

The World Bank Water Global Practice supports efforts of the government of Uganda (GoU) to advance its water reform agenda through three key strategic engagement priorities, delivered through a combination of lending, technical assistance, and analytics:

- **Improving and expanding service delivery for both refugees and hosting communities**—increasing rural and urban water supply and sanitation (WSS) access and integrating refugee populations into national and local government budget allocation and services.
- **Supporting policy reforms and directives**—targeting reforms and enabling environments to shift WSS service-delivery model from a short-term emergency response to a long-term sustainable development approach and strengthening new regional WSS providers.
- **Addressing refugee inflow related to social fragility**—integrating refugee services into the national system for long-term sustainability and improving equity of service provision and investment benefits between refugees and hosting communities.

World Bank Infrastructure Investments

The **Integrated Water Management and Development Project (IWMDP)** is a US\$280 million International Development Association (IDA) project, approved by the World Bank Board of Directors in June 2018. Key subcomponents are meant to strengthen WSS services in refugee settlements and host communities through US\$58 million in financing from the IDA18 Regional Sub-Window for Refugees and Host Communities. The focus is on critical large WSS infrastructure construction and rehabilitation, as well as technical assistance to strengthen institutional capacity to develop and execute WSS sector policies and programs that promote more sustainable and efficient service delivery in refugee settlements. These components were designed under the Comprehensive Refugee Response Framework (CRRF) and the Refugee and Host Population Empowerment (ReHoPE) Strategic Framework, which calls for greater harmonization in development approaches

and programming on WSS service delivery in districts hosting refugees. The interventions being implemented are large solar-pumped and gravity water systems and sanitation facilities in six refugee-hosting districts (Adjumani, Arua, Kiryandongo, Lamwo, Moyo, and Yumbe) that have a safe water access rate in the subcounties below 67 percent and extreme water stress that requires bulk water transfer from other areas. The project is in its third year of implementation, and ultimately it is expected that approximately 1,403,000 people will gain access to improved water and sanitation services, including 99,000 refugees and 173,000 host-community residents. After the systems are completed, they will be under the management of national providers, either the National Water and Sewerage Corporation (NWSC) or relevant umbrella authority (UA).

Uganda Intergovernmental Fiscal Transfers Project Additional Financing (UgIFT AF) is a US\$250 million project designed to improve the adequacy, equity, and effectiveness of financing, as well as the oversight, management, and delivery of local government services in education, health, water, environment, and microirrigation, including refugees and their host communities. It includes US\$50 million from the IDA19 Window for Host Communities and Refugees. UgIFT AF supports the integration of service delivery to refugees and their hosts in the uniform local government service delivery system. Refugee populations are factored into national budget allocation formulas, and UgIFT AF supports the transition from humanitarian financing to integrated financing of service delivery for refugees and their hosts together with services already managed by local governments. Refugee-hosting districts develop integrated transition plans, which aim to combine sector financing from wage, nonwage, recurrent, and development grants in health, education, and water with other funding sources, including complementary World Bank operations and those from humanitarian actors. This helps improve the effectiveness of combined resources supporting service delivery, reduces duplication and waste, and shifts toward more sustainable financing of services. As a result, the management of water supply services to refugees and their host communities is mainstreamed and integrated into the local government system. The World Bank water team contributed to the overall design of the UgIFT AF, promoting a more sustainable transition operationally in the long term.

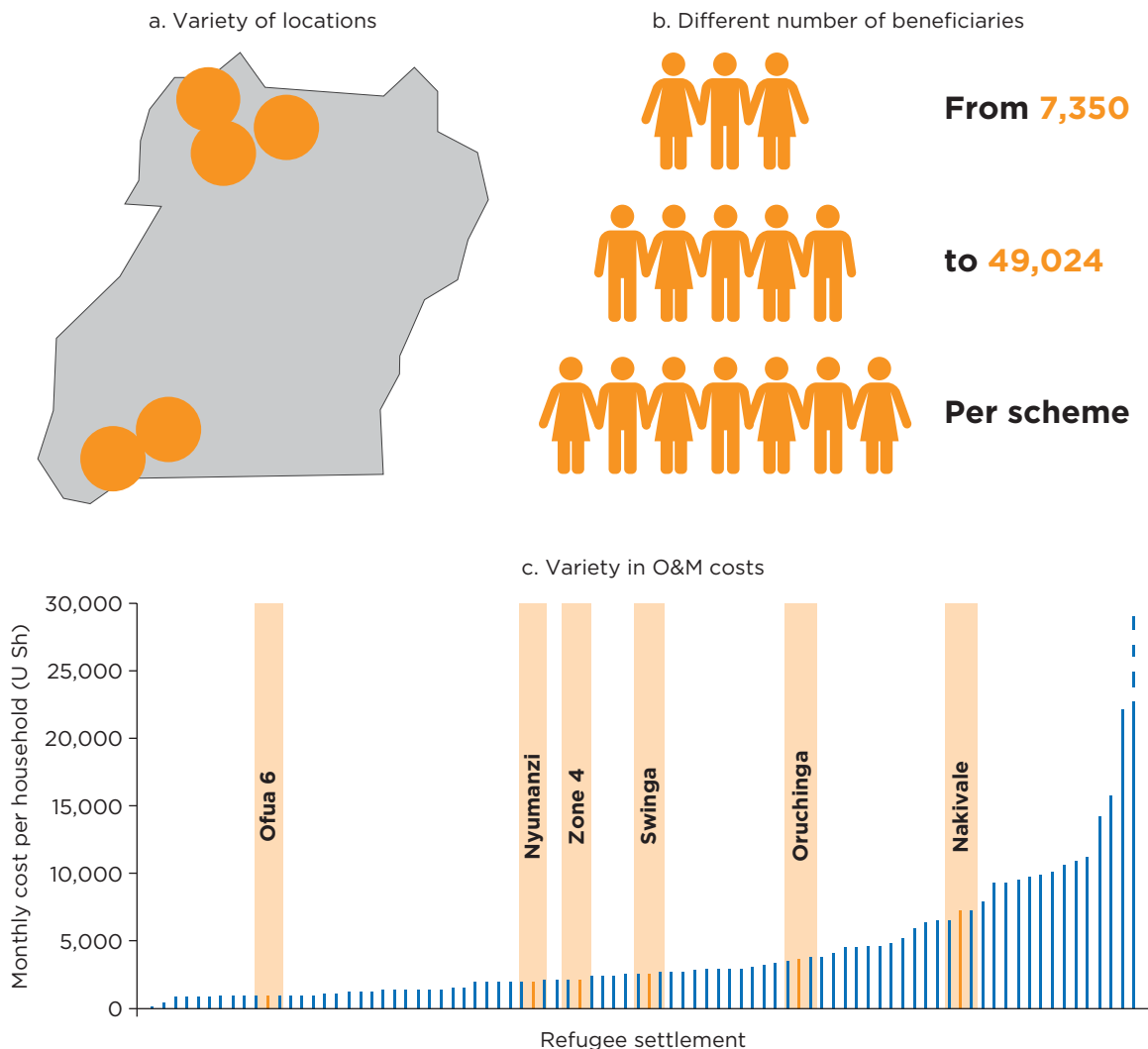
Technical Assistance and Analytics

A deep-dive assessment of water systems and management models to support the GoU recommended the transformation of refugee settlement water systems to long-term operations under national utilities. The assessment, initiated in 2019, took place at the onset of discussions among the Office of the Prime Minister (OPM), Ministry of Water and Environment (MWE), and United Nations High Commissioner for Refugees (UNHCR) aimed at determining a more sustainable and integrated approach to water services in the refugee settlements, including the new policy to introduce user fees for refugee water services. Advised by UNHCR, the MWE selected six water systems in the Adjumani, Bidibidi, Nakivale, and Rhino, and Bidibidi refugee settlements for the deep-dive assessment, which focused on technical aspects and functionality of the systems, operation and maintenance (O&M) structures, cost and payment mechanisms, and refugee characteristics, including vulnerability level and ability and willingness to pay. The water systems were chosen for their differing characteristics in terms of system design, O&M costs,¹ O&M cost recovery,² implementing partners, number of beneficiaries, date of establishment, size,

and location. Evidence suggested that variability in O&M costs across these six sites reflected the broader pattern across all Uganda refugee settlements, rather than simply being a function of the small number of settlements in the sample (figure 3.1).³

The assessment examined the options for the user fee structure and various management models in the refugee settlements. Households in three settlements were surveyed to gauge their water consumption, sources of incomes and expenditures, and livelihood opportunities, which also subsequently served to triangulate the findings. These data were complemented by the initial set of high-level data on the characteristics of the districts hosting refugees collected by the World Bank Poverty Global Practice and incorporated into economic analyses that included:

Figure 3.1. Six Sites Reflect Broad Representation of the Settlements Across All Uganda



Source: World Bank 2019a.

Note: O&M = operation and maintenance; U Sh = Uganda shilling.

(a) comparison of the refugee settlements in which user fees were or were not applied to understand whether the fees had a discernible effect on the quality and sustainability of the service, (b) customer base for water supply systems in each settlement to understand ability to pay (household income and the sustainability of livelihoods) and willingness to pay, and (c) costs of each system to understand the affordability of water supply in each settlement based on the prevailing socioeconomic context. These analyses investigated the potential for the implementation of user fees.

Although the root causes of the challenges were comparable across all water schemes investigated, responses differed among settlements.⁴ In adopting a coherent strategy, the MWE, OPM, and UNHCR also ensured that each intervention was tailored to individual settlements. The case studies highlighted that refugee settlements throughout Uganda have different characteristics and that the water supply systems themselves have different features (for example, cost and technology). Interventions aimed at improving the sustainability of water systems would have to be specifically tailored for each context and adopted gradually. To guide the design and implementation of these tailor-made interventions, strong institutional and policy frameworks for water supply in refugee settlements are needed.

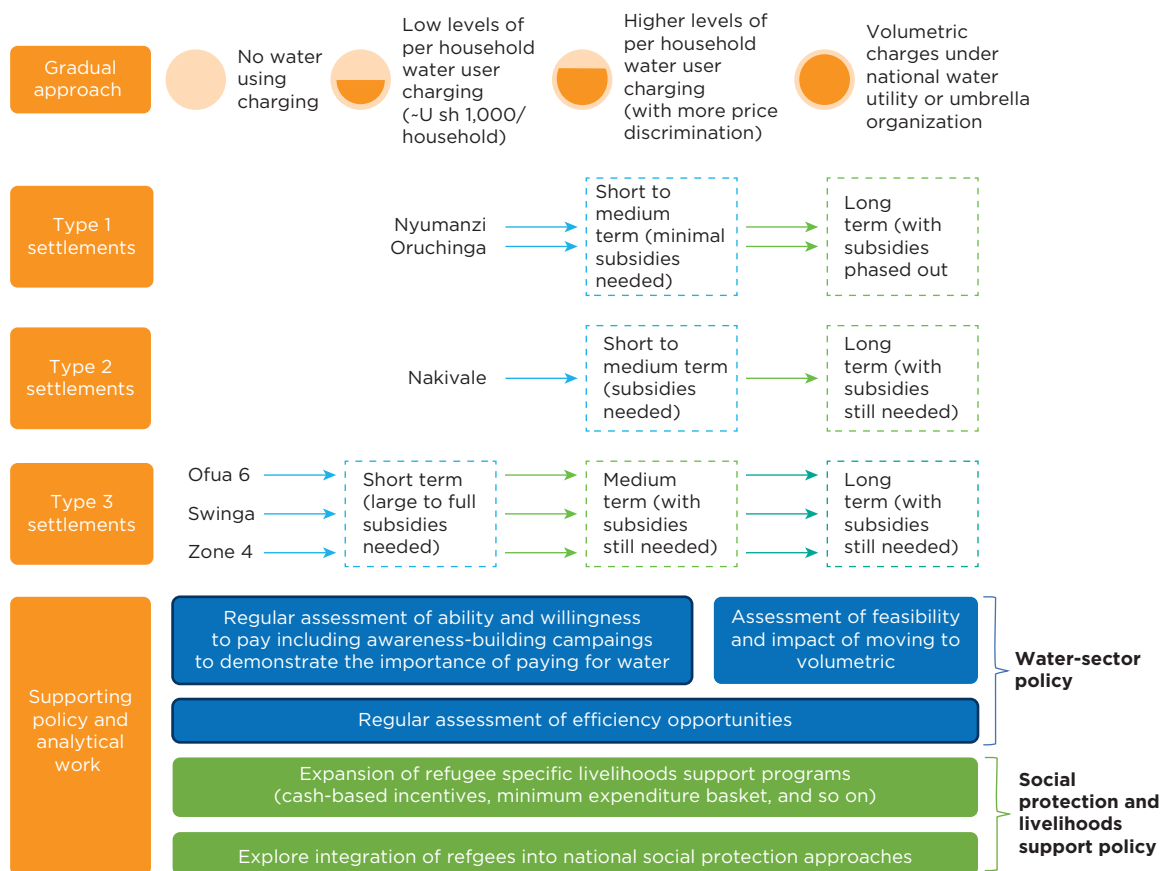
The assessment recommended a gradual approach to charging refugees and hosts for water services in Uganda's settlements (see figure 3.2). This would place water users in both settlements and host communities on a continuum from free water to lower levels of water charges on a per-household basis to higher levels (possibly with more price discrimination) to full integration into the national water management system (either the NSWC or one of the six UAs) with a parallel shift to volumetric charging. However, to implement this approach robustly, a policy and analytical framework would need to be developed. It is expected to take years to implement this framework, but this remains a long-term goal in Uganda.

Gradually raising household water fees will require a regular assessment of household income and social and economic vulnerability to ensure that higher water charges do not have adverse effects on families. This assessment should be accompanied by awareness campaigns that emphasize the need for and importance of paying for water (and other services) to build more self-reliant communities.

Planning for the integration of refugee settlements into the national system for water management should include an understanding of the potential effects of the shift to a volumetric charging structure based on a detailed estimation of water demand. In addition, regular engineering assessments of possible ways of securing efficiencies in water delivery would reduce concerns about affordability. However, the issue of water charging should not be considered in isolation but rather as part of a broader shift to self-reliance by refugees. This shift to a fee structure would need to carefully balance continued support for the vulnerable and aid-dependent segment of the refugee population, which has been increasingly challenged by diminishing humanitarian assistance.

The assessment deepened the understanding of service delivery, various O&M models, and the customer base for the water schemes in the settlements. It also informed the gradual implementation of a water user fee in refugee settlements and provided technical assistance and institutional strengthening support to the Refugee Response Subgroup and its nascent secretariat. The findings

Figure 3.2. Proposed Roadmap for Water Use Charging



Source: World Bank 2019a.

Note: Some water policy aspects of this framework have already been established and are depicted with a solid outline.

and recommendations from the assessment also informed the development and/or revision of key national instruments, including the Water and Environment Sector Response Plan (WESRP), Infrastructure Development Plan, and the national O&M guidelines.

The World Bank developed a tool kit and guide on how to transfer water services from refugee settlements to national utilities. Following the deep-dive assessment, the World Bank continued the technical assistance (TA) support to the GoU by developing a guide to assess refugee settlement water systems' compliance with Ugandan standards and the systematic mechanisms needed for the transfer to the utility-based model. It builds on the work of the recent assessment and supports the institutionalization of the process to assess, upgrade, and prepare for integrating the water systems in refugee settlements into the national utilities. The guide, which will be applicable for different types of systems across the settlements, was piloted in one settlement, Rwamwanja. The work included (a) documenting an inventory of the current water systems in the refugee settlement, including appropriateness of designs, performance, and functionality; (b) developing general checklists, questionnaires, and financial templates to assess water systems in refugee settlements based on Ugandan design standards and their ability to transition to a

utility-based model; (c) piloting the proposed assessment instruments and transfer approach in Rwamwanja, where NWSC is providing water delivery; and (d) developing a road map for water system transfer that reflected lessons learned from the pilot.

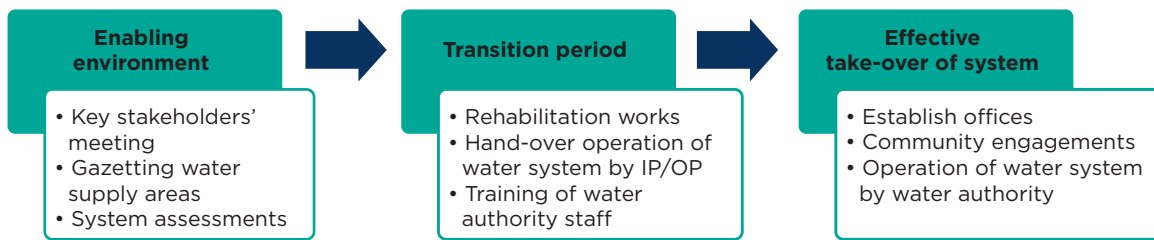
The legal and policy framework for transferring the operation of water systems to the water authorities involves a combination of national legislation and policies that govern the water sector as a whole and specific policies for the receiving water authority. The management of all water production and supply assets would be transferred to the water authority to be used for the provision of public water services within the refugee settlements. The requirements for a successful transfer of water systems include the following:

- Agreement among OPM, UNHCR, and MWE on such issues as responsibilities during the transfer process, especially as these relate to financing and implementation of key rehabilitation works, subsidies of user fees, and matters related to landownership and security of tenure for the water authority
- Rules for demarcating the water supply area and appointing a water authority to manage the gazetted area
- A functional system able to meet the immediate water supply needs of the beneficiaries
- Willingness of the local community to adopt a new water management model
- Ability to pay for the water services as determined by the water provider

Recommendations for a Phased-in Approach

1. **Phase 1: Establish the enabling environment** to ensure that the key stakeholders (for example, MWE, UNHCR, nongovernmental organization [NGO] partners, and local district governments) in the provision of water services in the refugee settlements agree on the approach, roles, and responsibilities during the transfer process and on the policy and institutional implications. This would serve as the basis of the framework agreement that lays the foundation for the transfer. Moreover, an inventory and assessment of the existing water systems and characteristics to ensure that they are functional and can meet the needs of customers in the refugee settlement would be required as a precondition of the transfer.
2. **Phase 2: Shifting to the transition period**, in which system rehabilitation and improvements would be made, overcoming the design and installation flaws noted during the implementation period—when WSS provision was an emergency and went largely uncoordinated. During this time, the outgoing implementing partner (IP)/ **operating partner** (OP) would continue operations to ensure that services are not disrupted until the water authority effectively takes over the water system. This period includes providing training for the water authority as needed, gathering data or information to prepare the water authority for takeover (for example, customer enumeration and mapping), and conducting stakeholder engagement, including sensitization of water user committees and refugee welfare councils responsible for water management at the community level as outlined in the operation and maintenance framework (UNHCR 2013). The duration would be determined on a case-by-case basis depending on the interventions required.
3. **Phase 3: Effective takeover of the management of the water systems** by the water authority would include activities such as taking custody of assets, establishing an office, initiating billing, and setting up customer management systems (figure 3.3).

Figure 3.3. Three Phases of Systems Transfer



Source: World Bank 2019c.

Note: IP = implementing partners; OP = operating partner.

The tool kit for transition to a water utility developed by the World Bank was used to support the process that began in 2019 with an initial transfer of the UNHCR-managed systems to national providers under supervision of the OPM, MWE, and ministry of local government. The original plan was to transfer systems to both the NWSC and UAs.² However, after an assessment of the operations and financial structure of the UAs, UNHCR decided to focus on the former, given the utility's immediate readiness, whereas the GoU set clear institutional objectives for the latter to build internal capacity and ready the entities for similar management responsibilities.

The transition of responsibilities from UNHCR to the NWSC started with the Bweyale/Kiryandongo systems in Kiryandongo District and the Rwamwanja systems in Kamwenge District. This was followed by preparation of the transition of water and sanitation systems in Isingiro District, supported by the French Development Agency (AFD).

The Rwamwanja pilot was completed successfully in 2019, achieving major increases in efficiency and savings for UNHCR. It resulted in the water provider distributing more water and receiving revenue from both water sales and compensation from UNHCR for the piped water. UNHCR was able to reduce its operational and maintenance costs fivefold, making resources available for other areas of its operations. The positive experience in Rwamwanja led UNHCR to continue transfers in four other districts.

A rapid assessment of service access and resource distribution addressed social tensions in Uganda refugee settlements and host communities. Following violence between refugees and members of a host community at a water point, at the request of UNHCR and the GoU, the World Bank also supported a rapid assessment in 2020 to understand the sources of tension and resilience. The objective was to review and analyze the extent of unequal access to basic WSS, distribution of resources, relations among the local communities, conflict-sensitivity support, and effects of coronavirus disease 2019 (COVID-19) in selected refugee settlements and host communities. Following consultations with UNHCR and OPM, the World Bank selected three settlements for the assessment in the Upper West Nile region: (a) Rhino, (b) Adjumani, and (c) Palorinya and respective neighboring host communities. A violent flash point had occurred in Rhino settlement in September 2020, and tensions with host communities had been high in the other two settlements in the previous year.

The assessment confirmed that refugee inflows into Uganda had placed additional strains on the delivery of services to host communities in refugee-hosting districts. It revealed that tensions arose over perceived inequities in access to water, education, and health services. Competition over limited resources was further exacerbated by ethnic and cultural differences. Tensions also arose over collecting wood for fuel and construction poles and over grazing rights. Host populations felt underserved, as some believed that the government and its partners were prioritizing the welfare of refugees over their needs. As many of these communities had generously donated land for refugee settlements, some saw this as particularly unfair.

The study revealed disproportionate distribution of water services in the West Nile/Northern region, showing that approximately 68 percent of the host population had access to improved water sources,⁶ whereas more than 85 percent of refugees had access to safe water. This discrepancy becomes even more significant when compared with access to piped water. For example, there were only 11 small piped water schemes serving host communities compared with 157 schemes serving refugee settlements, resulting in only 3 percent of the host population having access to piped water compared with at least 61 percent of refugees.

The report developed a set of recommendations to address the inequalities and mechanisms to improve the investment packages with equal benefits for refugees and host communities. Refugees and hosts have coexisted peacefully for decades in Uganda, and it is critical that this dynamic continues to ensure an integrated approach to service delivery between refugees and hosts. The increasingly large refugee population over the past five years, however, has intensified service delivery challenges and placed an additional layer of stress on host communities, which are mostly low-income small towns and rural areas that suffer from inadequate infrastructure, limited social services, low productivity, and environmental degradation from climatic and soil conditions. The evident disproportionate investment in improved water access in refugee-hosting areas in favor of providing services within the settlements may undermine social cohesion. Nonetheless, several measures aimed at promoting peaceful coexistence, including community dialogues, have been recommended based on the findings from this assessment.

Water and sanitation. The assessment recommended increasing coverage of water schemes among the host populations to improve service delivery and ensuring at least one safe water source per host village. Existing piped water schemes within the settlements in Northern Uganda have sufficient water to extend piped water schemes to the host communities, offering an immediate opportunity to improve access to water supply and reduce tensions between hosts and refugees. Doing so will likely also foster the perception that the presence of refugees contributes to an improvement of living conditions, rather than as competition for resources, and may boost economic development in these areas (Zhou, Grossman, and Ge 2022). Although questions about affordability remain, the assessment also revealed an emerging willingness to pay among refugees, with the gradual introduction of user fees through the water boards.

Peaceful coexistence and social cohesion. The assessment recommended promoting social cohesion activities, such as football, community dialogues, and youth associations, in their communities. Registration of these associations will increase their visibility and access to funds to enable them to effectively run their activities. In addition, both youth and adults need to be economically and socially engaged. Given that communities are key stakeholders in refugee hosting, activities

that improve their livelihoods and access to sustainable water and sanitation services will further help ease these tensions.

UNHCR Engagements and Interventions

Coordination of Stakeholders

UNHCR has played a critical convening role, bringing together stakeholders in the humanitarian and development sectors and rallying them toward strategic shifts in water supply, sanitation, and hygiene (WASH) service delivery in refugee-hosting areas. The WESRP² was launched in March 2020 to operationalize the CRRF/Global Compact on Refugees (GCR). The MWE led the process and was supported by UNHCR, whose role included cochairing several subcommittees and stakeholder workshops, which included both refugees and host communities. The WESRP is aligned with the National Development Plan (NDP) III for the period 2020-25 and is guided by government policies, plans, and frameworks with links to several international and regional commitments. Consequently, the MWE coordination structure now includes a refugee subgroup as part of the newly created and operational WESRP steering committee and secretariat.

Transitioning of Water Supply Management to National Utilities

UNHCR and its partners continue to operate and maintain water schemes in the 13 refugee-hosting areas. Efforts to transfer selected established water systems to NWSC began in October 2019 with consultations that led to the signing of a memorandum of understanding (MoU) between UNHCR and NWSC for the management of water services in Rwamwanja refugee settlement (UNHCR 2019a) in South West Uganda.

Cognizant of the socioeconomic profile of the population, the utility applied a pro-poor tariff and has installed 58 connections (33 private/domestic connections, 10 institutional, and 15 public standpipes). As a result of leveraging the utility's operational capacity, the unit cost of water declined dramatically to US\$0.34/cubic meters from US\$25.6/cubic meters⁸ on the pro-poor tariff.

Following this initiative, the Water Supply Development Facility North handed over six water schemes that it had developed to the Northern Umbrella Authority (NUA) in Adjumani, Arua, and Yumbe settlements. NUA is working with NGO partners to prepare refugees and hosting populations to set up local governance structures for the transition and management of viable water schemes in the West Nile region.

World Bank and UNHCR Collaboration: Impacts and Results

Key Impacts from the Collaboration

The technical and financial engagement of the World Bank and UNHCR over the past three years has supported the GoU on the reform journey to transfer water service provision for refugees into national systems. The analytics and TA support have been instrumental in articulating the fundamental challenges with the traditional humanitarian service model, supporting

the government and stakeholders as they navigated the new paradigm through an evidence-based approach, facilitating policy and reform discussions, and mobilizing funds toward a sustainable road map for full integration of services.

The collaboration facilitated effective platforms for dialogue, aid coordination, and outreach, bringing together local and national government counterparts and international partners to discuss and share knowledge on WSS sector development, water service provision reform strategies, transition programming, and financing. A water Development Partners' Group (DPG), chaired by the World Bank in 2020–21, facilitated consultations on the transition from humanitarian water service provision to national services, key sector development frameworks, WSS system assessments, O&M, tariff settings, source protection issues, transfer road maps, and regulatory changes. The DPG held a two-day retreat for government and development partners to map specific requirements for the transfer, including oversight and governance mechanisms, operational challenges, and capacity constraints of the utilities (particularly the UAs). The group deemed it critical to strengthen UA institutional capacity as a precondition for the effective takeover and management of the systems. The Bank IWMDP was engaged to support UAs to set up their parastatal status and charters, enabling them to benefit from UNHCR financial transfers for refugee water and sanitation services. The engagements produced several important outcomes. First, the DPG evolved into a critical platform for partners to address the reform and transition efforts, harmonize interventions across humanitarian and development approaches without duplication of initiatives, facilitate peer-to-peer knowledge-sharing, build trust and cooperation, and support the government as they advanced the integration of services. Second, national, district, and local government counterparts actively engaged with the DPG, which increased dialogue and coordination at all government levels and with other stakeholders.

The knowledge generated from these engagements informed the analysis and recommendations that partners have adapted to advance the system transfer. The series of water system assessments, diagnostics, and tools were discussed with the DPG. Inputs were received from selected DPs during the analytical framing and tool development process, and the final products were shared with partners and the government. Different partners have used and adapted these analytics and tools for the important follow-up work carried out through their projects engaged in supporting the system transfers to national utilities in different refugee settlements and host communities. For example:

- The German Agency for International Cooperation (GIZ) applied World Bank-developed checklists, questionnaires, and financial templates in Arua, , Madi Okollo, Terego and Yumbe refugee-hosting districts for the system assessment, transfer, and post-transfer system upgrade. It was also actively involved in the tool kit development process, along with Engineers Without Borders.
- The European Union (EU) team in Uganda used the assessment of the legal agreement between UNHCR and NWSC to prepare the transfer of water systems in the Kiryandongo refugee settlement.
- Agence Française de Développement (AFD) used the tool kit to develop the process for the system transfer to NWSC in Isingiro District, which serves both refugees and host communities.

- The Austrian Development Agency (ADA) supported the transfer and justified financial allocations in Terego, Madi Okollo, and Yumbe Districts using World Bank analytics and tool kits.

The TA activities and UNHCR’s catalytic role influenced the enabling environment for transitioning to the utility model. UNHCR played a crucial role in the process of moving toward the utility-based model, demonstrated by its practical operational and technical contributions and collaborations that ranged from sharing data and information about existing water schemes and refugee household information; contributing to joint technical consultations and analytical work; and facilitating dialogue on the transition by working directly with the utilities, implementing NGOs, and the government on concrete measures for the transition. UNHCR led the negotiations with NWSC, which led to (a) piloting the pro-poor tariff for refugees, targeting the first 20 liters per person per day, and charging market rates for water consumed by households above this threshold and (b) developing and signing the MoU between UNHCR and NWSC.

Key Results: Donor Funds Mobilized and Number of Systems Transfers and Beneficiaries

The World Bank and UNHCR engagement helped attract donors and mobilized US\$57 million (€52 million) for the system transfers. Several development partners have provided support to the GoU-mandated utilities for transitioning water services, including for infrastructure development to improve access for both refugees and host communities. This support is broadly anchored within various bilateral financing arrangements that have a grant component for refugees. Donors include AFD, Danish International Development Agency (DANIDA), European Union International Partnerships (EU-INTRA), German Development Bank (KfW) and GIZ, which have contributed to various ongoing and pipeline projects distributed across different refugee-hosting districts (see table 3.1).

Table 3.1. Donor Funds Mobilized for System Transfers from the World Bank and UNHCR Engagements

PARTNER	PROJECT NAME	AMOUNT MOBILIZED	IMPLEMENTATION AREA
AFD	Isingiro Rural Water Supply and Sanitation Project	US\$9 million (€8 million) refugee component of the US\$75 million project (€69 million)	Rwamwanja settlement and the surrounding host population of Katalyeba Town Council in Kamwenge District
KfW	R-WASH Program	US\$35 million (€32 million)	Northern Uganda
German Agency for International Cooperation (GIZ)	WatSSUP	US\$13 million (€12 million)	Northern Uganda

Note: AFD = Agence Française de Développement; GIZ = German Agency for International Cooperation; KfW = German Development Bank; R-WASH = regional water supply, sanitation, and hygiene; WatSSUP = Water Supply and Sanitation for Refugee Settlements and Host Communities in Northern Uganda.

Under these various donor projects, transfers of approximately 50 water systems in two districts (Rwamwanja and Kiryandongo) have been supported, enabling national water providers to serve approximately 12 percent (192,000) of the refugees in Uganda. Seventeen water networks in Northern Uganda are being prepared for transfer. An additional three or four large water systems in three refugee settlements hosting more than 180,000 refugees are expected to complete transition to the national service providers by end of 2022.

NOTES

1. The variability in O&M costs seen across these sites reflected the broader pattern across all Uganda refugee settlements.
2. The household charge required for full O&M cost recovery in the six sites appeared to be drawn from across the spectrum of charges in other Ugandan settlements.
3. This is based on UNHCR Uganda Country WASH data, <https://data2.unhcr.org/en/working-group/162?sv=0&geo=220>.
4. This is a suggested road map for the transition to the utility model, in accordance with UNHCR and MWE plans to enhance the water supply systems' sustainability. Relevant authorities are expected to revise, add details, and "own" the road map.
5. UAs, a second-tier water and sanitation provider.
6. Data is from the Uganda Water Supply Atlas, <http://wsdb.mwe.go.ug/>.
7. Uganda Water and Environment Sector Refugee Response Plan, <https://www.mwe.go.ug/library/final-water-and-environment-sector-refugee-response-plan>.
8. West Nile contracts during emergency.

4. Lessons Learned and Key Issues

Government Support and Coordination Is Key to the Success and Sustainability of a Transition to Utility Management

Alignment of activities with the government's priorities and the United Nations High Commissioner for Refugees (UNHCR)'s leadership and catalytic role in the transition from a humanitarian to a sustainable developmental approach were critical to the success of the transfer process. With UNHCR's leadership, the World Bank worked closely with government officials and key stakeholders throughout to improve the provision of water services for refugees and hosting communities from the inception of the project to completion, including the technical assistance (TA) and capacity-building efforts. The World Bank TA over the past three years has been instrumental in sustaining and providing an evidence base for the government's efforts throughout the reform process and in continuing the momentum to achieve change, and large infrastructure development has progressed, although at a more modest pace. The UNHCR team led the formulation of the system transfer memorandums of understanding (MoUs), assessed the capacity of the National Water and Sewerage Corporation (NWSC) and umbrella authorities (UAs), developed a compensation mechanism for the services provided and for economically vulnerable refugee households, and conducted the scheduled transfer. The effective cooperation among the UNHCR, the government of Uganda (GoU), and the World Bank was critical to advance the reform process. The success of the UNHCR and World Bank partnership was primarily attributable to a shared vision of the results in both country offices, respect for the entities' respective roles, close collaboration between technical teams, dedicated coordination focal points in both organizations, and the complementarity of the value proposition that each entity brought to different stages of the reform process.

Key TA activities responded to evidence-based demand from detailed consultations among the World Bank, Ministry of Water and Environment (MWE), Office of the Prime Minister (OPM), and UNHCR. Uganda experienced resource and service delivery constraints from high refugee inflows in the Upper West Nile region, coinciding with the beginning of Comprehensive Refugee Response Framework (CRRF) implementation with UNHCR on a more integrated approach to improve the quality and sustainability of water services in refugee settlements and host communities. The support provided by the World Bank TA responded to demand in the field and aligned with the government's road map for this new integrated approach. The team used a deep-dive assessment to obtain critical understandings of the water systems, related costs, and customer base in selected settlements to inform the potential design of user fees, using checklists and financial templates to assess the water systems and level of rehabilitation needed to transfer to utility-based models and developing ways to build the resilience of water systems to withstand different shocks,

including demand fluctuation. MWE and UNHCR also provided input on the content and nature of each engagement in the TA and were actively involved throughout the implementation. Both the alignment of activities with the government's priorities and its active engagement were critical for promoting greater government ownership of the activities and ensuring sustainability of the outcomes after the activities were completed. It also ensured partner support for the World Bank to continue engagement in the reform effort.

Coordination was particularly important when TA activities incorporated user fees. Although there was agreement about the need to adopt user fees in the settlements, it was unclear among humanitarian partners, OPM, and MWE which agency would lead that discussion and transition. For seven months, MWE was waiting for OPM to issue an official policy on user fees for refugees, and OPM was waiting for MWE to take the lead as it was considered a sector issue that rested within the line ministry. One key contribution of the World Bank at the outset of the deep-dive assessment was to bring the key stakeholders together to clarify roles and responsibilities. At a joint meeting, the parties agreed that responsibility for the service delivery, including user fees in refugee settlements, rested with MWE and that OPM would lead on the overall refugee management and protection issues. The World Bank continued to engage with OPM, MWE, UNHCR, United Nations Children's Fund (UNICEF), and other key stakeholders to confirm that there was consensus on this approach and consistency with CRRF and Refugee and Host Population Empowerment (ReHoPE) principles. As a result, though it would not have been possible to agree on and introduce user fees at the outset of the reform, there was now a common consensus among all key stakeholders about this critical approach to the country's development. These engagements also fostered trust and relationship building between the World Bank and UNHCR, which continued throughout and beyond the scope of TA implementation. Although technical and financial challenges can slow reform implementation, strong support and commitments from government and partners are essential to continue momentum and achieve progress.

Technical Capacity of National Water Utilities

The capacity of national utilities needs to be strengthened for sustained service provision following the transfer. Capacity of utility staff and attention to performance data are critical to the sustainability of the transitions. Each of the utilities needs to have financial monitoring tools to track the key parameters of a successful transition, including the history of user fees, tariff projections, UNHCR subsidies, operating costs, and planned capital maintenance expenditures. Community engagements should be encouraged, including regular social assessments, communications plans, community feedback mechanisms, and opportunities for social accountability and decision making. Sustainability may emerge as an issue as refugee water systems become more elaborate and expensive to operate. The current negotiated rate between UNHCR and NWSC may not be adequate to fully recover the cost of the operations and maintenance, raising the risk of service rationing. Experience has shown that technical information is usually poorly managed and tends to be inconsistently documented or based on "educated guesses." Also, NWSC's operational model widely uses cross-subsidization to cover its operational costs, which involves getting funds from large cities and then spending them in less profitable areas. This poses another level of sustainability risk.

Water System Standards, Quality, and Functionality

Water supply systems are often implemented in haste in emergency contexts, resulting in disparate and incompatible systems in a water supply area. A system may lack sufficient review, may not comply with national design or quality standards, and may not be a long-term viable solution, leading to operation and maintenance (O&M) complications, including the local availability of spare parts. Technical assessments of each system should be conducted and a master plan prepared to review and improve gazetted area shortfalls in water supply and system components, and to identify opportunities for system integration to ensure the efficiency of the system.

Transfers of water systems require funding for rehabilitation to meet national standards, ensuring systems within the gazetted areas are of high quality and functionality. As the UNHCR-managed water schemes are handed over to national utilities, quality assurance is essential to the success of the transfer. Rehabilitation and quality improvements must be made to meet national standards before handing the systems over to the utility to set the transition up for long-term success. Furthermore, the utilities need to be provided with financial management mechanisms that (a) refurbish and adapt the schemes for long-term operations (for example, water metering, establishment of a water office, introduction of electronic billing/payment system) and (b) pay for the part of operation costs that are not yet covered by user fees.

Financial Considerations in the Transition to Utility Management

Financing for the water sector remains relatively low. Enhancing the funding mechanisms for rural water and sanitation is critical and should be prioritized for refugee-hosting areas to ensure continuous technical support and minimization of capacity gaps in planning, budgeting, procurement, implementation, and O&M of water facilities. Investment in sustainable solutions, such as a transfer to national utility management, offers a mechanism for maintaining equitable access to water.

Refurbishment of the systems to meet national standards before transfer is essential to success. A World Bank study assessed the cost of such upgrading at as much as US\$300,000 per system. The German Agency for International Cooperation (GIZ), using a similar methodology, assessed the cost of transfers for the entire Northern and Mid-West UA and came to a similar value. It is important to develop a mechanism that can be used to finance such upgrades, for which the provider is compensated upon completion of the transfer. It is also clear that investment and TA packages must consider the needs of hosting communities. On operations cost, though they can offer affordable tariffs, the utilities (in particular the UAs) do not have the resources to subsidize the running costs of operations in refugee settlements.

The economic benefits of system transfer suggested expanding integration of infrastructure in the settlements with the national utilities. It was observed that unit cost of production was reduced along with an increase in access to financial capital, which strengthened the operational efficiency and service delivery. For example, in the Rwamwanja settlement, the management costs was reduced to U Sh 37 million from U Sh 900 million a year under the humanitarian IPOP model after systems were transferred to NWSC (a reduction of 97 percent).

User fees are essential to sustain water systems. The issue of service affordability arose because of the low socioeconomic profile of refugees and host communities. The World Bank assessment revealed an emerging willingness to pay, such as seen in Rhino settlement, with the gradual introduction of user fees through the water boards. As such, boosting the livelihoods of refugees and host populations is important to enable increased household incomes, which would then enhance household ability to pay for the services. As water security remains a critical UNHCR protection issue, humanitarian cash-based interventions warrant careful consideration, particularly for the most vulnerable refugees. UNHCR continues to pay NWSC the costs to provide services to vulnerable refugees, but this is significantly less than the O&M costs when humanitarian partners managed these schemes.

Social Considerations

The social implications related to system transfers must be carefully considered. Both refugees and nationals are key stakeholders in the refugee-hosting areas. Promoting active community dialogue among youth, men, and women from refugee settlements and hosting communities creates opportunities to respond to the needs and motivations of both communities for improved water and sanitation services and livelihoods. These engagements also help identify potential points of tension and opportunities to address them to sustain social cohesion and peaceful existence among communities. Water points can be flash points, so programs need to be purposeful in managing social cohesion risks across refugee and host communities.

The refugee space is dynamic and requires flexibility and innovation in interventions. Teams need to be agile, flexible, and ready to adapt interventions to changing, unpredictable conditions in the field. This was evident during the implementation of various TA and analytical efforts in which the scope had to be expanded to integrate a more forward-looking element to investigate the implications of the emerging government priorities in the field. This included the preparation of the Water and Environment Sector Response Plan (WESRP), establishment of the refugee subgroup within MWE, rollout of the transition of water systems to NWSC and UAs, including the NWSC/UNHCR user fee pilot in the Kiryandongo and Rwamwanja settlements, consideration of lessons learned/opportunities/constraints, and integration into the district development plans. Moreover, because the needs were so vast in the settlements and hosting areas, the pace of the rollout and uptake of many initiatives occurred rapidly with support mostly from nongovernmental organization (NGO) partners. This required keeping abreast of the engagements, ensuring continued relevance and applicability of the activities, and maintaining an active role to provide value in this space.

5. Way Forward

- It is important to continue support for the transition of basic social services, including water supply, from the United Nations High Commissioner for Refugees (UNHCR) to national providers. This improves the sustainability and efficiency of the overall water supply and makes water services manageable and properly planned based on the whole community's needs. The engagement of public water utilities in the provision and maintenance of water services for refugees costs less than traditional humanitarian models. This is especially relevant in protracted forced displacement situations facing declining resources.
- The international community through UNHCR and humanitarian partners will continue financing infrastructure expansion and subsidizing consumption costs for a given period; however, the utilities require new and/or innovative sources of financing (for example, public-private partnership) for infrastructure expansion and operation and maintenance of existing systems.
- The transition of established water systems covering a large population of both host communities and refugee settlements enables the national utilities to improve service delivery for marginalized populations and increase its customer base.
- Further studies and analytics on the economics of water and sanitation provision in these contexts are needed. Such analyses would further inform the rationale for the transition and guide humanitarian actors' initial investments that can then be built upon to facilitate the intermediate and longer-term investments for sustainability of the new systems.
- The transition in the more remote hosting communities/refugee settlements may require substantial support from development partners, including investment grants or lending. Transfers of the water infrastructure to umbrella authorities (UAs) and National Water and Sewerage Corporation (NWSC) will require upgrades and optimization of services. The road map for the remaining eight zones needs to be developed with a special focus on the remote and low-income districts of the country.
- The status of individual boreholes remains uncertain after the transition of water systems. Although in Rwamwanja all individual boreholes will be closed and replaced with piped systems, in other places they will remain for a much longer time. Thus, an inventory of all the boreholes will need to be conducted and assessed, followed by development of a comprehensive borehole management plan for inclusion in the transfer road map. NWSC has limited experience with operation and maintenance of boreholes management and keeps them on the side of operations now. A strategic approach for borehole management is an ongoing gap needing attention.
- Ministry of Finance, Planning and Economic Development (MoFPED) is working on an overall transition framework covering the education and health sectors as well. It would be useful to draw lessons, approaches, and models from these initiatives to inform the overall way forward for the government of Uganda (GoU) and its partners to transition humanitarian refugee services sustainably into national systems.

6. Conclusions

Uganda's efforts to integrate water service provision in refugee settlements is pioneering and a commendable example of the implementation of the principles of the Global Compact on Refugees (GCR). This was a feature in the World Bank/United Nations High Commissioner for Refugees (UNHCR) session at the 20th African Water Association (AfWA) International Congress and Exhibition in February 2020 with joint participation by Ethiopia and Sudan, which had prompted interest in learning and potentially replicating Uganda's experience in neighboring countries. These all contributed to the key objective of strengthening the continuum between humanitarian and development programs in Uganda and beyond.

Currently, services in refugee-hosting areas remain heavily dependent on humanitarian support, which is unsustainable and continues to face increasing pressure as the global displacement crises proliferate and costs increase. Taking a development approach and investing through the national utilities enhances sustainability of interventions compared with the humanitarian approach through nongovernmental organizations (NGOs), whose presence is dependent on potentially uncertain funding availability.

The journey to full integration of water provision is long and complex, with many variables to consider, including mindset changes on water services in refugee settlements, policy and regulatory reforms, refugee protection issues, institutional capacity, and financing needs. These issues must be dealt with a high degree of sensitivity and strong collaboration among all partners, but the path to success is possible with consensus on the objectives, strong political commitment at the highest levels of the government, and unwavering collaboration and coordination with key stakeholders.

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