Providing Water and Sanitation in Uganda
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This brief is part of a series of seven briefs/case studies on increasing the impact of Rotary. If Rotary is to have a larger impact globally, it must rely on partnerships, innovation, and evaluation. Partnerships help to implement larger projects and benefit from the expertise of organizations that are among the best in their field. Without innovation, the contribution of Rotary is a drop in the development assistance bucket. But if Rotary innovates, successful pilots can be scaled up by other organizations with deeper pockets, achieving larger impact. Finally, evaluation is needed to demonstrate the impact of pilot projects. To encourage clubs and districts to think bigger and more strategically, the series to which this brief belongs showcases projects in the areas of focus of the Rotary Foundation that have relied on partnerships, innovation, and evaluation. This brief tells the story of a project providing water and sanitation in Uganda.


Access to Water and Sanitation

As in other low income African countries, access to water and sanitation remains limited in Uganda, especially for the poor. A recent World Bank study provides a diagnostic of the sector using the most recent nationally representative data as well as qualitative fieldwork. Selected findings from the study help set the stage for understanding the approach undertaken by Rotary’s larger water and sanitation projects in the country.

Basic statistics on access are sobering. Less than one in five households has access to piped water through the residential network or through public standpipes. By standard definitions, three in four households have in principle access to an improved water source, but for many the quality and/or cost of the water they have access to remains problematic.

Many households rely on open water sources, including from the Nile. Photo: C. Tsimpo.

For example, some households with access to improved water sources choose instead to rely on other sources of water due


2 Definitions of improved vs. unimproved water and sanitation follow the Joint Monitoring Programme at the World Health Organization and UNICEF.
to cost, long distances to the safe water sources, or perceptions that open water is safe enough.

Only a small minority of households have access to improved sanitation. Due to multiple factors, the use of toilets, waste disposal techniques, and other sanitation facilities has not improved enough over the last decade. In addition, survey data suggest that less than one in seven households have a facility in their dwelling to wash hands, and only half of those facilities in household dwellings have soap.

In rural areas, three main factors contribute to poor access to safe water: a lack of functionality of the infrastructure, a lack of responsibility to maintain water and sanitation assets, and scarcity of water in some areas.

Lack of functionality refers to the fact that in many communities facilities are not working properly, whether this is due to (among others) aging systems, poor maintenance, or the inability to repair broken down equipment.

Lack of responsibility refers to poor organization or leadership at the local level that prevents communities from investing in improving water supply, and leads to poor maintenance and a lack of incentives for households to keep water sources clean.

Scarcity refers to the fact that in some communities, water is not easily accessible - it has to be brought into the community from distant sources.

This also means that families, including many children, must spend significant time fetching water, thereby reducing the time available for productive market work (for adults) and schooling and study (for children).
Water fetching is often done by children, some of whom may be very young. Photo: C. Tsimpo.

In the case of sanitation, cultural traditions and behaviors, attitudes, and lack of affordability are among the main reasons for limited latrine/toilet coverage in communities. But inadequate landscape, terrain, or soil type also play a role, as does lack of land to build latrines. Inadequate hygiene habits such as not washing hands are also related to cost, attitudes, and at times ignorance or at least cultural norms.

Poorly functioning infrastructure leads to long queues at water sources. Photo: C. Tsimpo.

Households and communities are aware of what constitutes safe water and sanitation. They recognize that boiling water may be needed to ensure safety. There is recognition of the need to build latrines sufficiently far away from water sources. At the same the pressure of daily life and common practices come in the way, due to both affordability issues and cultural factors.

As an example of affordability constraints, buying charcoal or firewood to boil water may be too costly for some households. Lack of affordability is also related to the opportunity cost in terms of time of fetching water that may be safer, but located further away from dwellings.

**Lack of Functionality**

Drilling a well is relatively easy, maintaining it less so. Uganda’s Ministry of Water and Environment publishes an annual sector performance review. These reports suggest that a fifth of water points are not functioning. Major causes for non-functionality include technical breakdowns and low yield. Shallow wells tend to have the lowest functionality rates (protected springs have the highest). Some water sources are considered as abandoned, having been non-functional for five or more years. Only about half of community-level Water Source Committees function properly. Functionality levels are increasing in urban areas, but gains in rural areas are weaker.

Lack of maintenance is sometimes due to lack of spare parts, inadequate repairs, or lack of funds for repairs. It may also be hard to find well trained technicians. Power shortages and lack of fuel to run generators also play a role. Other factors, including lack of training for hand pump mechanics and limited interactions with district water offices may also play a role.

In one village visited for qualitative fieldwork, the community had six tap stands. Due to poor workmanship and usage of small pipes coupled with low pressure the tap stands did not last for three months.

In another community the only functional tap located at the health center was not reliable because the water was always on and off, and the other three available taps had broken down years ago. In another village, the peak waiting time to collect water from the water point was one hour due to a non-functional borehole.

In another village, two boreholes were available, but one stopped being functional four years ago, and the remaining one was so hard to pump than in servicing the pump, the mechanic’s fingers were cut off. Many households ended up collecting water from swamps two kilometers away.
As for cultural factors, in some areas perceptions that the population used to be fine in terms of health outcomes without having to protect its water sources may lead to sub-optimal outcomes when contamination risks have increased due to population growth and other factors. For some, there may also be a perception that if water that looks clean, it can (erroneously) assumed to be safe.

Private latrines are not affordable for many. When public latrines are available, there is often a consensus that in order to ensure maintenance, fees should be charged to those using the latrines. Yet enforcing the fees is hard, and often public latrines fall in disrepair. Bye laws state in many urban communities that households should build their own latrines – but again enforcement is difficult. Technological alternatives to traditional latrines have also been proposed, but these are often not seen favorably by households, and may also fall in disrepair. Similar issues are at play for waste removal.

Uganda Rotary Water Plus

Rotary is playing an important role in helping to meet some of the water and sanitation needs of Uganda’s population. A first important initiative is the Uganda Rotary Water Plus (UWRP) program. UWRP coordinates work on water and sanitation done by 78 Rotary clubs (virtually all the clubs in Uganda). The program was launched by the Ugandan Minister for Water and Environment in October 2011. It promotes effective service delivery to rural and less privileged communities.

**Hand Washing**

Few households have a place to wash hands in their dwelling, and only half of those have soap. Community hand washing facilities are also limited. Campaigns have been carried out to promote hand washing, but they are not always successful.

A district official summarized the issues as follows: “local leaders have campaigned, but there is poor response and adoption, because hand washing is viewed as a strange practice to the local culture in which people have not been exposed to it since childhood. Soap is expensive to community members and water is quite scarce. Most significantly, local leaders themselves are not visibly seen practicing hand washing, even at the high district level. Yet people are like children, who copy what they see. You cannot simply continue telling people about what they should do, but do not see you doing, and hope to have them buy your idea.”

Overall, survey data and qualitative fieldwork both suggest that the constraints faced by households and communities are complex, often requiring solutions that must be context and community-specific.

Clubs develop projects for the communities they wish to serve. For this purpose, they must first build strong relationships with the community and develop a needs assessment. Having identified needs, clubs then select partners to meet those needs, including other Rotary clubs for fund raising, non-profits and/or business partners for implementations, and local authorities. Co-funding is typically provided by the Rotary Foundation (TRF) and in some cases other funding agencies.

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3 Section based on presentations by Ron Denham, Moses Musiitwa, and Chris Mutalya at the 2015 Sao Paulo Rotary International convention.
Steps To Be Followed in URWP Projects for Sustainability

1. Create project teams  
2. Understand community needs  
3. Estimate lifecycle costs, affordability  
4. Select technologies (design/plan project)  
5. Prepare capacity building plan  
6. Build, construct, implement  
7. Establish links to commercial channels  
8. Develop management systems  
9. Set up micro-banking facilities  
10. Hire key members/resources  
11. Sign agreements with stakeholders

The design of projects must be based on adequate technologies for the community context, with attention paid to gender and environmental issues. Clubs are encouraged to link the projects to other areas of focus of TRF, for example by providing water and sanitation to schools or health clinics.

The idea is that water and sanitation alone can’t transform a community; the “Plus” in URWP refers to other areas of focus of TRF such as supporting education or fighting disease.

The model also encourages local management committees to oversee facilities cost recovery through tariffs so that funds are available for maintenance.

URWP aims to raise $7 million for more than 30 projects. Rotary International is also partnering in Uganda with USAID to invest $4 million over four years through additional projects, following previous successful similar collaborations in the Dominican Republic, Ghana, and the Philippines (this broader partnership is referred to as the International H2O Collaboration).

Beyond the mobilization of funds, the URWP initiative has also succeeded in uniting 4,000 Ugandan Rotarians, more than 3,000 Rotaractors and many members of Rotary Community Corps (RCCs) behind countrywide water and sanitation initiatives. Many have volunteered their time and financial resources to support the projects.

Community Needs Assessments

Another interesting initiative that is part of URWP has been the implementation of a detailed diagnostic of water and sanitation facilities in communities of Apac District located 250 kilometers north of Kampala. The District has a population of around 350,000, many of whom live in poverty.

The idea behind the water and sanitation community needs assessment was to prepare an inventory of resources as well as gaps to be used by the Ministry of Water and the Environment as well as Rotary and other funders for the prioritization of investments. Teams visited communities. After an initial meeting in each community, data collection involved implementing a survey, conducting interviews and focus groups, establishing an inventory of all water and sanitation assets in the community, and conducting community mapping exercise.

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4 Box based on a presentation by Moses Musiitwa at the 2015 Sao Paulo Rotary International convention.

5 Section based on a presentation by Nicholas Mancus at the 2015 Sao Paulo Rotary International convention.
Data were collected using the FLOW (Field Level Operations Watch) system developed by Water for People. The application relies on Android cell phones together with GPS data and Google Earth software to document water and sanitation infrastructure as well as its functionality.

Participants at a community meeting in Apac District. Photo: URWP.

The community needs assessments was implemented with support from the Apac government and 16 organizations. Rotaractors served as field enumerators. Data were collected for communities as well as public institutions such as schools and health centers, with ratings provided on the quality of facilities and the satisfaction of users. Tests of water quality have also been conducted in some of the areas.

Water testing for communities in Apac District. Photo: URWP.

Conclusion

URWP represents a prime example of efforts by Rotary to invest in projects that have a larger impact through partnerships, innovation, and monitoring and evaluation.

The URWP team has established partnerships with multiple NGOs as well as USAID and Ministry of Water and the Environment. It has been innovative in project design to ensure a higher likelihood of sustainability. Evaluations of the projects are not yet available (many projects are still at the design or implementation stage), but monitoring systems are being put in place.

Finally, in the case of Apac district, extensive data collection has been conducted on water and sanitation assets and gaps at the level of communities in order to inform prioritization of future investments. This should also help in achieving higher impact through targeted interventions.