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**ENSURING AVAILABILITY AND SUSTAINABLE MANAGEMENT  
OF WATER AND SANITATION FOR ALL**

**Rural water service delivery and innovations in Uganda**

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*This study seeks to improve the delivery of rural water services in Uganda by understanding the key challenges and bottlenecks that are currently confronting service delivery and to identify innovative approaches, which may be piloted. A combination of household questionnaires, semi-structured household interview questions, the qualitative information systems methodology for focus group discussions, field observations as well as key informant interviews were employed to gather the necessary data. A set of 16 water user groups and committees (WUC) s were mobilized in each of the 8 districts from northern and western Uganda, and a random selection of 1600 households. The results showed a well-functioning water user committee and collection of the user fee is a prerequisite to safe and reliable water supply. Furthermore, the creation of a savings group which engaged in other economic activities made the WUC more sustainable and its adoption was thus recommended.*

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**Introduction**

The targets for rural water supply in the Uganda National Water Policy (MWE, 1999) are safe water supply to 77% of the rural population by the year 2015, with an 80% - 90% effective use and functionality of facilities. Access is defined as 20 litres of water per capita, per day within 1 km for rural water supplies.

The National Health Policy (MOH, 1999) addresses the increasing burden of disease resulting from poor environmental health, with particular emphasis on rural areas, where the population has low access to safe water and poor latrine coverage. This will be achieved through the promotion of hygiene within individual households, institutions, communities and food sectors. Sanitation in rural households is a responsibility of the individual household.

The key aspects of the Rural Water Strategy (MWLE, 2001) are:

*i) Demand responsive approach* will be adopted so that the people take the initiative and responsibility for improving their water supply situation rather than being passive recipients of government services.

*ii) Decentralized implementation:* The funds will be channelled directly to districts as conditional grants for implementation.

*iii) Integrated approach:* A package approach necessary for continued use of facilities and sustainable operation will be used. It includes construction, installation and all software such as mobilization, community-based planning and monitoring, hygiene education, maintaining a safe water chain, promotion of household hygiene and sanitation, promotion of gender awareness and capacity building at the user level.

*iv) Sustainability:* as a prime objective of all water and sanitation interventions. No new installation or scheme shall be considered without prior establishment of ownership of the facility and establishment or strengthening of the system for operation and maintenance, including sufficient proof that the users are willing and can afford to meet the recurrent costs.

*v) Privatization:* The Government is committed to the privatization process in all spheres of national development efforts, including various aspects of the rural water sub-sector.

The institutional framework for rural water supply consists of the: i) water users, ii) the sub-county, iii) the district water office, iv) the Ministry of Water and Environment/Directorate of Water Development, v) Technical Support Units, (TSUs) iv) the Private Sector, vii) Non-Governmental Organisations/ Community Based Organisations and viii) the Water Sector Coordination Committee.

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Sustainability will follow the principles of the community based management system (CBMS) and will occur at the following levels.

*i) Source level:* a village source committee, Water User Committee (WUC) or Borehole Management Committee will be created, with at least half of the members being women, during the community mobilization phase. At least two caretakers will be appointed for each source, preferably women. The WUC will collect a user fee from the residents and is responsible for the maintenance of the installation, including the use of bank accounts to safeguard the maintenance funds.

*ii) Sub-county level:* the private sector will be responsible for the activities at sub-county level. Private hand pump mechanics (HPMs) will undertake repairs and half yearly preventive maintenance of the hand pumps. Retail distribution of spare parts will take place through shops at sub-county level. The Local Council III (LC3) and sub-county water and sanitation committees will select the HPMs, spare parts dealers and pay for the training of mechanics. Extension staff and local chairpersons will provide back-up support and supervision.

*iii) District level:* wholesale and retail distribution of spares will take place through district-level spare parts dealers, appointed by the local spare parts manufacturers. The District Water Officer (DWO) will monitor the functioning of the maintenance system and will undertake the rehabilitation and repairs beyond the capacity of hand pump mechanics.

According to Water and Environment Sector Report 2011 (MWE, 2012), 65% of the population have access to a safe water source within 1 km, functionality of systems has stagnated between 80% - 83%, the household latrine coverage in rural areas is estimated at 69.8% and the access to handwashing is 24%.

### Objectives

The objectives of the study was: i) to assess the performance of the CBMS in terms of service delivery and compliance of stakeholders with their roles and responsibilities; ii) to identify opportunities for improving existing service delivery models (SDMs) and adapted innovations.

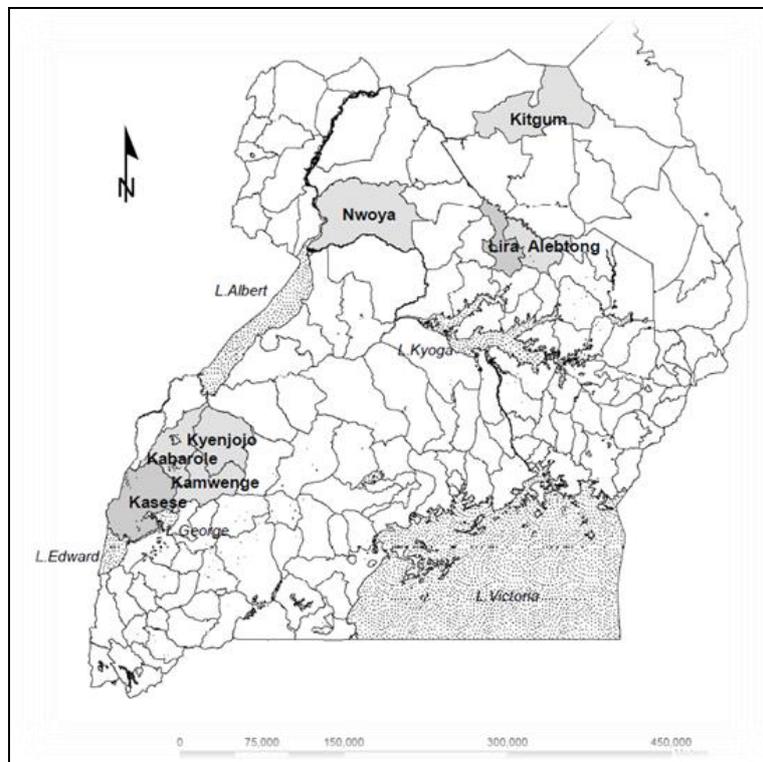


Figure 1. Study districts

## Methodology

The process started with pilot activities in two districts, Lira and Kabarole to test the research tools (Rugumayo, 2012). The lessons from the pre-test led to the further refinement of the tools used before the research was scaled up fully in the two pilot districts and conducted in six more districts of Kamwenge, Kasese, Kyenjojo, Kitgum, Alebtong and Nwoya as shown in Figure 1. The service delivery models that can be considered for piloting and adoption, should ideally build on existing initiatives and practices, with some possible improvements and further piloting, testing and scaling up. The service delivery baseline survey was conducted as an in-depth assessment using a participatory approach where the research teams and other key stakeholders were involved in the baseline survey implementation. It used a combination of household questionnaires, semi-structured household interview questions, the qualitative information systems methodology for focus group discussions, field observations as well as key informant interviews to gather the necessary data.

A sample size of 5% of the population, and in the pilot phase 80 households were interviewed in each sub county, while the full scaling up phase was 200 households from each district (a total of 1600 households). A set of 16 water user groups and water user committees were mobilized in each district, and a random selection of household water users participated in the interviews, while scheduled key informant interviews were conducted for the service authority levels, sub county officials, DWO and TSU.

## Results

### Water users

More than 80% of sources were within 1km. 35% of the respondents paid for their water and for those who paid, 75% found it affordable and it was assessed to be affordable by their monthly expenditure on mobile services as compared to the required monthly water user contributions towards the water services operational maintenances.



**Photograph 1. Women and children collecting water at borehole with a hand pump from a gravity scheme**



**Photograph 2. Water collection at standpipe**

The levels of satisfaction with respect to quality, quantity and collection time were 80%, 80% and over 60%, respectively. Photograph 1 shows women and children collecting water at a borehole with a hand pump and Photograph 2 shows collection of water with jerrycans at a standpipe of a gravity scheme. It was also observed that the presence of a well-managed water user committee directly affects the functionality of the water source. The presence of toilet facilities was high (>80%), but hand washing facilities were less than 38%).

### Service providers

Most WUCs were established during the last 10 years through democratic elections. WUCs consist of 8 members on average, of which 50% are female and literate. The number of households using the water

sources averages at about 190. The average number of households registered is 78%. Over 92% of the sources have caretakers and only 42% are compensated for their services, only 22% of the caretakers received training, 70% of the sources have hand pump mechanics and 81% are easily available, are compensated and 69% have adequate skills. 85% of the WUCs have a signed agreement with the Local Council 1. 56% of the users are accountable, with more than 50% providing support for repairs and in most cases the sub-county is accountable. *On the whole, less than 20% WUCs are functional. Based on these results it can be said that; a) there is a direct relationship between water user satisfaction and reliability of source, and b) there is a direct relationship between the reliability of the source and contribution towards repair.*

### **Service authority**

#### ***a) Sub county***

The following range of activities were undertaken at the sub-county level, depending on the resource envelope and skills of a particular sub-county: i) conducting baseline surveys to assess the sanitation situation, ii) community mobilization iii) identification of hand pump mechanics, iv) training of WUCs and Caretakers and v) signing of a Memoranda of Understanding. WASH coordination varies and in some cases there are regular meetings for planning, implementation and reporting by DWO, Sub county staff and NGOs. *The aYahura aYehoza (YY) credit and savings scheme strategy; which literally means “He who saves can easily borrow”; based on water services, as observed in Mucwini Sub-county in Kitgum District and Kahungye Sub-county Kamwenge District is innovative.. The YY strategy has enabled some communities to organize and improve their lives around the management of water sources, into an economic vehicle for engaging communities beyond water supply management.*

#### ***b) District water office***

The staffing levels at the district vary and are measured against the staff establishment of a District Water Office. In some cases, the vacant positions include: District Water Officer, Assistant District Water Officer, County Water Officer, Borehole Maintenance Supervisor, Health and Sanitation Officer, Community Development Officer and Extension Workers. DWO need to be properly facilitated for execution of their duties. These include the provision of: a digital camera, a photocopier, (global positioning system) GPS, water quality testing equipment and reagents, a motorcycle, computers, bicycles and even office space. The full complement of documents include: i) the Conditional Grant Guidelines, ii) the District Implementation Manual, iii) the Community Handbook, iv) the (operations and maintenance) O&M Framework and v) the O&M Guidelines for Water Supply and Sanitation Boards (WSSBs). The documents most referred to in the execution of their duties are those indicated on items i) to iv). With the exception of the DWO in Lira, all other districts have a document or two missing. In terms of procurement, most districts exhibited average performance with a few showing very efficient and transparent methods. In terms of construction supervision an example of best practices is in Kasese district, whereby there is weekly reporting to the DWO and monthly reporting for the larger projects through submission of progress reports.

In terms of financing, most districts receive nearly all the grant funds from central government and the expenditure is usually as budgeted. The selection of water sources to rehabilitate has been well streamlined in some districts, whereby the HPM, sub county extension staff and the community, are involved in source selection, monitoring, operation and maintenance and documentation with Kasese and Nwoya districts showing the most compliance. *Furthermore, in Kamwenge, Kasese, Kyenjojo and Alebtong districts, an association of hand pump mechanics has been formed, which has been very instrumental in establishing new water sources and maintaining existing ones. One of the challenges the HPM associations face is the lack of spares or dealers at the sub-counties or even at the districts. Sometimes water quality monitoring was done randomly, irregularly and on a quarterly basis.*

#### ***c) Service support-technical support unit***

TSUs meet all DWOs and explain all mandatory reporting requirements with deadlines though compliance is not good. Most guidelines are adhered to though not all, but TSUs have no authority to enforce compliance, so they forward them to higher authorities. They provide training in data management, have developed capacity building plans, participate in field visits with district staff, coordinate inter-district meetings and carry out spot checks on the water atlas mapping information.

Local governments do not involve TSUs in procurement activities; however TSUs follow up in case of delayed procurement though they are not responsible for direct contract management. TSUs also guide and

mentor new DWOs on their work. *Most districts are well coordinated, though TSUs assessment of district performance is very limited, mainly because TSUs have few staff who required to cover a wide operational environment and they are limited by their operational budget, especially with respect to capacity building and field visits*

## Recommendations

1. There is need to strengthen the functioning of the WUCs whose presence contributes positively to the reliability and functioning of the water sources. Notably, HPMs associations make it easier for the community to access the HPMs and also the sub counties, and the districts find it effective to support them through capacity building initiatives. This is evidenced by the high levels of water source functionality in districts like Kamwenge and Kyenjojo, where HPMs associations exist.
2. Hence, it is recommended that all sources should identify a hand pump mechanic and subsequently a HPM association established in each of the sub counties and districts, so that they can improve their performance and efficiency and benefit from capacity building initiatives. This should be replicated countrywide. The water user groups in some western districts have organized themselves into YY credit and saving schemes using the water supply management agenda as an economic vehicle in their local communities. This initiative has encouraged local communities to participate in water source management, while at the same time promote a culture of financial saving. The saved resources are available to the water user group members at lower interest rates compared to the market rates. This strategy of integrating part of the community economic life proved to be a sustainable approach for rural water management as evidenced in the Kamwenge District.
3. Based on the success of the YY credit and savings schemes the next recommendation is that the provision of safe water should be accompanied by other business activities that would encourage the community to pay their user fees and even make savings. It could be integrated rural water supply with a business component, which could be piloted...
4. Other recommendations that apply to WUCs, the Sub county, the District Water Office and TSU are operational in nature. They require more funding, more guidelines, more documentation, more community mobilization and more capacity building.

## Lessons learned

Since there is a direct relationship between water user satisfaction and the reliability of source as well as a direct relationship between reliability of source and contribution towards repair, it is implied that there is a link between water user satisfaction and contribution towards repair. This means users should be sensitized about paying the user fee to be ultimately satisfied, which is about empowerment and sustainability.

The CBMS is still the best approach in promoting rural water supplies and this is affirmed by the initiatives that being promoted by the different stakeholders right from the users to the district authorities. This means stakeholders should be encouraged to be innovative, within its framework.

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