Improving the effectiveness of Ugandan Water User Committees

Abstract

This paper outlines issues affecting the functionality of Ugandan Water User Committees responsible for managing communal water and sanitation services. Their effectiveness is compromised by poor understanding of their rights and responsibilities by stakeholders within and outside the committees. Following the research, a handbook was produced that explains the rights and responsibilities in a form that is accessible to all community members. Preliminary feedback from committees that have made use of it suggest that it has the potential to improve the functionality of the water user committees, thereby helping to improve the local management of WASH services in Uganda.

KEY WORDS: Rights, Responsibilities, Water User Committees, Participation, Uganda 1999
Water Act

"Access to water is inextricably linked to rights," (Skinner, 2013; 3).

Introduction

The aim of the paper is to analyse to what extent the 1999 Uganda Water Act has enabled local communities to improve their Water and Sanitation (WASH) services. Attention is focused on the role of Water User Committees (WUCs) to highlight factors that influence their effectiveness. The research was undertaken between November 2012 and May 2013 in

conjunction with the National Association of Professional Environmentalists (NAPE), an indigenous environmental advocacy group based in Kampala. This is based on a much longer working relationship that NAPE has established with the communities over the previous decade. The final aim is to set out details of a handbook that was produced by the research team for use by WUCs. (1) The paper includes a discussion of the process by which information included in the handbook was compiled and a preliminary evaluation of its impact since being distributed to WUCs in the study area. The research process was deemed necessary because the range in functionality of WUCs has become a factor that is undermining the aims of the 1999 Water Act from being implemented in many communities throughout Uganda. The paper is primarily concerned with water provision that is not supplied through conventional means such as pipes to housing or communal taps. It is concerned with communal supplies from boreholes, springs and protected wells which are still very common amongst impoverished communities in rural and peri-urban or other informal settlements.

Background Issues

The Millennium Development Goal (MDG) target on access to drinking water (the "Proportion of population with sustainable access to an improved water source, urban and rural" and the "Proportion of urban population with access to improved sanitation") is now considered to have been achieved at the global scale (http://www.un.org/millenniumgoals/environ.shtml).

However, 768 million people still lack access to potable water and in sub-Saharan Africa, the numbers without access actually increased by 63 million between 1990 and 2011 (WHO/UNICEF, 2013). Skinner (2013) also points out that whilst progress has been made on access to water, definitions as to what that means are inconsistent. The apparent success in reaching the access to the water target fails to take into account factors such as whether the water source is still operational, whether the costs precludes the poor from accessing it, whether certain groups are denied access by others and whether marginalised groups who are not officially counted are included in the official statistics. This vagueness results in the Ugandan Government claiming that it has achieved this part of the MDG despite the fact that in a population of approximately 36 million, only 1.5 million have access to piped water.

The Policy Context: The Global South

Since the 1980s, a series of water reforms have been initiated within the Global South with the aim of improving services to poor communities (Gooluba-Mutebi, 2012). This process was driven initially by the fallout of the Third World Debt Crisis of the 1980s in which governments were forced to adopt structural adjustment policies by the World Bank and International Monetary Fund in return for financial support to overcome indebtedness to the commercial banking system of the Global North. As with the post 2007-08 banking crisis in the Global North, a requirement of indebted countries was to cut back on government expenditure and encourage other stakeholders such as communities, non-governmental organisations (NGOs) and civil society groups to take responsibility for the running of public services. Therefore, the rationale and origin of these policies may be traced back to the rise

of neo-liberal thinking and specific events such as the 1992 Dublin Principles which "…radically redefined the role of the public sector, with the state's conventional primary role as investor in water infrastructure being questioned" (Van Koppen et al, 2007; 1). In so doing, "the role of the state has moved towards that of regulator, promoting decentralization and users' participation" (Van Koppen et al, 2007; 2). Within sub-Saharan Africa examples include Zimbabwe's 1998 Water Act, Uganda's 1999 Water Act, Kenya's 2002 Water Act and Malawi's 2003 National Water Act all of which have sought to a greater or lesser extent to decentralize water resources management to the user level and reduce the direct role of the state in the management of water resources (Kafakomo and Silungwe, 2003; Mumma, 2005; Chikozho and Latham, 2005).

This move to decentralisation coincided with a growing trend in development thinking that encouraged bottom-up development through participation with those groups in the Global South who had traditionally been omitted from decision making, namely the economically and politically marginalised poor (Chambers, 1983). Participatory development and decentralisation of decision making of services such as water simultaneously managed the rare feat of appealing to the political right through its transfer of resources from the public to the private sector and the replacement of big government by small government and the political left who were in favour of empowering the poor.

The role of community based water management systems that have been set up since the late 1990s has come under increasing scrutiny (WaterAID, 2013). Studies in Malawi (Kafakomo and Silungwe, 2003) and Zimbabwe (Chikozo and Latham, 2005) comment on the negative impacts that arise when decision making over local water resources are devolved to local communities in the absence of a simultaneous attempt to explain to the newly

the transition. This is exacerbated by the fact that in many rural and peri-urban communities, water has traditionally been managed by customary rights, many of which are based upon oral traditions or long-standing informal agreements which may or may not be compatible with the modern rights that are meant to have replaced them. This paper adds to that body of literature concerned with decentralisation of management and rights to water. Its focus is at the community level, particularly with issues that concern the functioning of community-led WUCs within Uganda who have received and begun to use a handbook developed by the authors. This was designed to explain their rights, the functions of individual WUC officers and sets out the responsibilities of the WUCs and the community with respect to the upkeep of their WASH infrastructure.

Theoretical arguments in favour of community based water management

As a communal resource, the management of water is potentially problematic (Derman and Hellum, 2002). The advocates of an institutional approach to communal management point out that over-use and degradation of a shared resource is not inevitable, provided specific features are in place in the management set-up (Ostrom, 1990). Bruns (2005) lays out several reasons why community level management of water resources is appropriate including;

(i) detailed local knowledge of users and resources;

- (ii) collective action creates webs of connectivity thereby improving social capital,trust and cooperation;
- (iii) the ease with which neighbours can monitor one another's usage discourages violations in the rules;
- (iv) the ability to apply sanctions;
- the loss of local reputation and the shaming effect it has on community members
 acts as a deterrent to over-exploitation of water resources by individuals;
- (vi) informally applied rules and sanctions reduce the transactions costs associated with maintaining community compliance;
- (vii) encouraging participation in the management process promotes legitimacy in the process, reduces the risk of rejection by community members and is an empowering process;
- (viii) water management via a collective rather than by individuals becomes more effective especially where there are shared views and common interests.

Despite this list of potential reasons for encouraging community-based management, Bruns (*ibid*) points out that such assumptions are not always delivered in practice. These may be caused by:

- (i) an underestimation of the level of conflict within communities;
- (ii) a lack of shared vision and values;
- (iii) iniquity in access to power and resources;
- (iv) high transactions costs associated with management due to the need to understand the local context.

This often results in small-scale communities being unable to manage the resource in the way that was envisaged by the drafters of the law or the theorists whose ideas were instrumental in setting them up. One factor not addressed by Bruns is the mismatch between the expectations of those who have decentralised decision making to community level and the often poor performance of such groups once they have been given that responsibility. In Uganda a significant issue that has caused this poor outcome is the lack of understanding of the rights and responsibilities that have been assigned to the WUCs since 1999. For example, the status of the 'right to water services' under the 1999 Water Act is widely misunderstood and, as we shall see, this complicates the work of the WUCs (cf. Staddon, Appleby and Grant, 2012).

Access to and quality of non-piped water sources in Uganda

Uganda, unlike many of its neighbours, and riparian and basin counterparts, is well endowed with water resources. The challenges it faces are partially due to the degradation of the water catchment areas which are primarily a result of demographic and economic growth in the country, and partially due to lack of prioritisation of water access and management by the Ugandan Government.

Access to an improved water source, defined internationally by the MDGs, refer to reasonable access to an adequate amount of water from an improved source such as the communal resources managed by WUCs, but also includes household connections, public standpipes and rainwater collection. Unimproved sources include vendors, tanker trucks

and unprotected wells and springs (MWE, 2011: 8). Reasonable access is internationally defined as 1km in rural areas and 0.2km in urban areas. The national functionality of rural supplies was recorded as 83 per cent in 2012, although according to the Ministry of Water and Environment (MWE), the research was underfunded and consequently the sample was not fully representative of the national situation. This figure has stagnated between 80-83 per cent over the past 9 years and is considerably lower than the sector target of 90 per cent. The functionality of rural WUCs is estimated to be 71 per cent, although as noted above, this seems to be highly optimistic.

Insert Table 1 here

As of June 2012 access to improved water within 1km in rural areas was 64 per cent a decline of one per cent compared to 2011. In urban areas access increased from 66 per cent in 2011 to 69 per cent in 2012. Even though the recent report on Uganda mentioned significant strides towards meeting the WASH related targets of the MDGs, most Ugandan published reports of access to improved water supplies were reluctant to go back before 2005 due to insufficient data, because the first year that there was combined urban data was 2005/06 (MWE, 2006). In addition, most research studies are outsourced internationally, because of a lack of local sector capacity in specialised water resource management (MWE, 2012).

A recent report by the Uganda Water and Sanitation NGO Network (UWASNET) showed that annual investment in the water sector was being cut back, with districts having their water budgets cut by 12 per cent compared to their identified needs (UWASNET, 2013: 16). An important explanatory factor seems to be Uganda's primary policy goal to transform the

country into an industrialised middle income economy by 2040, thereby prioritising

economic development over environmental conservation and management (NEMA, 2010).

In 2012 the Water and Environment sector was given a 2.8 per cent share of the national

budget, down from 5.6 per cent in 2006/2007 which in 2011 indicated a shift in focus

towards off budget funding. However off budget funding fell dramatically in 2012 so that it

was allocated only 19.3 per cent of the budget, down from 30.6 per cent in 2011 (MWE,

2011: 13-16; MWE, 2013: 4).

Rural water supply strategies from the MWE are primarily focused on boreholes, partially

due to the fact that that ground water is less vulnerable to contamination than surface

water but also because the average unit cost of production of piped water in Uganda has

almost doubled in the past 5 years. This is mainly due to increasing levels of non-revenue

water, that is, water lost to leaks and evaporation, mainly due to aging infrastructure in

many small rural towns which have exceeded their design life and are in need of major

rehabilitation or replacement. Moreover due to the low priority for funds to the WASH

sector the Government does not have the financial or human resources to manage these

water sources. This leaves the management and maintenance of the WASH facilities to the

community through the WUCs, giving de facto ownership and responsibility to the

community (MWE 2011).

The National Policy Context: The 1999 Uganda Water Act

In Uganda, the 1999 Water Act (The Act) is now the principle law that regulates the water sector. One of its objectives is "To promote the rational management and use of the waters of Uganda through use of appropriate standards, co-ordination of activities, allocation and delegation of responsibilities" (MWLE, 1999: 8). A key strategy is to enable the formation of WUCs whose membership is drawn from the beneficiaries of the WASH facilities, tasking them with ensuring its proper maintenance by collecting revenue from users. This demonstrates the move from a rights-based to a more market-based system of resource allocation. However, whilst handing over responsibility for day to day planning and running of water resources to WUCs, The Act also vests all water rights in the Government who have therefore become the owner of all water resources in Uganda. Local authorities are required to organise the formation of WUCs within their area, although the responsibility for this task between the district, sub-county or parish is ambiguously drafted within the Act which has added to the confusion. Once created the WUC is responsible for planning and managing the point source water supply in the area. The poor drafting of The Act is one factor that has made the implementation of better functioning WUCs and local water supplies less successful than had been expected.

The Act requires that water and sewerage authorities consult appropriate public authorities and relevant community groups in order to provide services in a manner most beneficial to the people of Uganda. Another objective of The Act is to "Manage and develop the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs of the present and future generations with the full participation of all stakeholders" (MWLE, 1999: 1). This policy was clearly influenced by the participatory and sustainable development discourses of

the time, recognising that everyone had a right to a safe, secure supply of high quality, affordable water for drinking and sanitation, encouraging water conservation and promoting integrated water management. It also defined the basic level of water supply as 20-25 litres per capita per day from a public water point within a distance of 1.5km of all households; this has since been updated to 1km in line with international standards. It also highlighted protected springs, hand pumps and gravity flow schemes as appropriate technology options for rural and sparsely populated peri-urban areas. The community should also be consulted on the choice of sanitation technology, which should be low-cost and appropriate to the area and the users. Community contributions in the form of cash or kind should be made towards construction based on the technology choice, furthermore operational and maintenance costs have to be fully paid for by the beneficiaries except in situations where the costs are beyond the capacity of the community. This clause is also ambiguous in that it is difficult to identify when that point has been reached. The policy promotes de facto community ownership as a strategy for ensuring sustainability, therefore the users own all protected water sources or sources that have been constructed in their communities though this contradicts the clause which vests all ownership of water with central government and is another source of confusion.

Creating functioning WUCs and wider civil engagement: the theory

The community is required by law to form WUCs to manage, operate and maintain point water sources. The WUCs are set up by a mobiliser from either the district, sub-county or

parish level. The approach is to make use of participatory tools to allow the community to identify and solve their own WASH problems i.e. learning by doing through self-discovery. This strategy is based on the premise that people are the most valuable resource. The process is supposed to further development and fulfil human potential by drawing strength from pre-existing working groups or those that are set up in the community as a consequence of the responsibilities placed upon them. The participatory tools are intended as a starter to an on-going process that should encourage the community into continuous dialogue and which should be followed up by home visits by the newly empowered WUC members and district water officers.

The first activities involves the entire community, or as many as are available, and revolves around mapping the current resources in their area of jurisdiction. This should identify gaps in relation to WASH as a first step in enabling participants to identify needs, thereby providing the community with data to apply to local government for help to improve services. The next stage identifies various sanitation issues and best practices. The mobiliser enters into a discussion with the WUC. They should continue to train the WUCs individually then collectively on their roles and responsibilities such as promoting good sanitation practice, the operation and maintenance of the water source, gender inclusion and environmental maintenance, how to collect funds for the services, book keeping and monitoring the facilities.

This strategy of placing responsibility on the WUCs to act as promoters and instigators of good WASH management is in theory conceptually sound. If done well, it should empower the community to act as a homogenous self-governed group, in the long-run reducing their reliance upon the government for funds or services and at the same time should help to

unlock the water resources within Uganda by improving the potential energy and resourcefulness of local communities whose long-term livelihoods and health are dependent upon good management of those WASH resources.

The performance of WUCs in practice

In practice, the success of this strategy and the WUC varies enormously across Uganda. The MWE report claims that 71 per cent of the 278 WUCs that they sampled were functional (MWE, 2011: 10 (vii)). However, this figure seems to be significantly higher than the findings obtained by the authors where only 10 per cent of WUCs met regularly and a district deputy water officer stated that Government figures did not match reality.

Many WUCs function poorly due to a lack of participation from within the community and by WUC members. A consequence of the low participation rate is an inability to raise funds to maintain the services. Some WUCs that were visited during this research had met only once since they were established over a decade ago, with one sheet of paper displaying their very first meeting as the only record of any activity during that period. In the Mukono District, WUCs were faced with abuse and physical attack from community members when attempting to collect funds and the majority of community members refused to contribute to WUC funds. One WUC member reported that "you fear asking some people for money because they refuse and can become violent".

One particular case in Mukono district helps to explain why community members would be unwilling to contribute to the WUC fund. In this example, during an election period, local politicians claimed that water is a free good thereby undermining the case for WUC subscriptions. The politicians had the power and influence to construct boreholes immediately, further undermining the WUCs. However, they were less interested in maintaining the systems once they had been elected, a key factor in measuring the long-term success of any local water source and its management.

Where such boreholes have become non-functioning the WUC has to accept responsibility for maintaining them but will have insufficient resources to do so. This leads to community members becoming reliant on neighbouring boreholes, often more than 1km away which were already supporting other communities, thereby increasing pressure on other water resources, increasing the time spent queuing for water, as well as longer trips to and from the facility. Those affected are almost exclusively women and children with knock on effects for their education and health. Corruption is fairly well known throughout the higher levels of governance in Uganda but it is also common within communities. During the course of the research accounts of the misuse of WUC funds were common. Typically, they were being used for home improvements, food, gambling and alcohol, creating an atmosphere of distrust and frustration which in turn made it difficult to raise new funds. One WUC member reported being physically abused by some community members for trying to collect funds resulting in local police being called in to temporarily resolve the conflict. Thus poor management of the WUCs are caused by internal mismanagement and corruption, by external pressure from other community members, or powerful individuals from outside that undermine well-meaning WUC officers in carrying out their duties.

The consequences of poor functionality of WUCs

Functionality, defined as producing water to a pre-set standard at the time of visit, currently sits at 82-86 per cent for all technologies apart from shallow wells which was 71 per cent in 2010/2011 and 74 per cent in 2011/2012. Wells have the lowest level of functionality and protected springs have the highest. Seventeen per cent of the sources are low yielding and 10 per cent are classed as vandalised. A further 8 per cent have limited functionality due to poor water quality. Technical breakdowns account for 43 per cent of non-functionality with an inability to afford worn out parts being a major factor. In such cases government claim they would step in to finance the repair although in reality district water offices have very restricted budgets and this rarely happens. Of the 66 per cent of the rural population with access to improved water supplies, 24 per cent of these are piped water supplies (public outlets and private and institutional connections) and 76 per cent from point water sources (deep borehole, shallow well, protected spring, rainwater harvesting tank). In rural areas access to safe drinking water varies from a low of 20 per cent in Kaabong District to 93 per cent in Rukangiri District. Urban centres display similar fluctuations. The predominant water supply technology used in Uganda is the deep borehole – approximately 38 per cent of the population with access to improved water supplies are served by deep boreholes (MWE, 2010: 4).

The quality of water is something not taken into account by the MDGs in terms of access to water. However the MWE (2013) state that water quality problems accounted for 8 per cent

of non-functioning water sources, but national standards of water quality indicators fall well short of international indicators. For example total iron content has a 79 per cent compliance rate with national guidelines but a 45 per cent rate with higher WHO guidelines. Similarly the E.coli compliance rate is 97 per cent following national guideline but only meets 63 per cent of WHO guidelines. This questions what the country's actual access to improved water sources may actually be and is further complicated by reports of water quality varying massively during the day depending on use, as well as the robustness of Uganda's water quality assessment, which the MWE (*ibid*, *34*) has already stated is highly under-funded. This indicates the range of highly technical issues, that in theory, WUCs need to have some knowledge of if they are to maintain and challenge the existing provision in order to facilitate improvements. Many of these issues need to be addressed by technical experts and WUCs can only be expected to notify them if problems arise, but in order to do so, they need to be able to identify the issues. In the case of water quality, for example relating to high iron content this is not always easy for non-experts to accomplish.

The Research Process

As a consequence of the patchy performance of WUCs, for a number of years the National Association of Professional Environmentalists (NAPE) had been carrying out a series of workshops to monitor, evaluate and improve their functionality. The evidence from the last four workshops between November 2012 and May 2013 led to the production of the WUC handbook, although that had not been their original goal. This reflects the evolutionary

nature of this research process which was responsive to the needs of the communities and their WUCs.

Methodology

This process used a participatory method to attempt to understand why the WUCs have experienced such a range of outcomes with respect to their functionality. Workshops were held with WUC members from the Mukono, Nakawa and Luwero Districts. These were selected because NAPE had established good relationships with the district, sub-county, parish representatives and WUC members. The workshops were facilitated mainly by NAPE staff with assistance from other NGOs and district officers. All districts speak Luganda, which facilitated easy communication between the participating community members and district officers and other participants. NAPE staff took individual notes and group members wrote down their ideas on large sheets of papers whilst working in sub-groups. These were collected at the end of the workshops after each group had agreed on the content. In addition to the WUCs a range of other stakeholders were also invited to participate including members of higher government and other non-government organisations (NGOs) such as WaterAid, Community Integrated Development Initiatives (CIDI) and the Uganda Rain Water Association (URWA). The workshops typically averaged 40-50 participants with over 90 per cent being WUC members. For example, in one workshop 20 WUC members from Nakawa, 15 from Luwero and 15 from Mukono attended whilst one person attended from the National Water and Sewage Corporation.

The workshops created a platform where the WUC members could explain their issues, criticise or praise government or NGOs and receive support and training from NGOs and government representatives if they were available. The conversation slipped quickly between Lugandan and English meaning that the non-Luganda speaking members of the research were reliant on translators. In the workshops the participants were given the opportunity to stand up individually or discuss issues in small groups which then reported back. They highlighted issues of water quality, poor sanitation practices by community members, pollution, a sense of disillusion with the government, anger at the current system by which their water sources were managed, the functionality of their water sources and the expense of repairing them. One community member said that "the quality of our water is embarrassing, we see our children and friends getting sick because of our dirty water, the vendors charge extortionate prices for clean water and the government does not help".

In addition to the workshops, unannounced visits were also undertaken to water sources. This not only increased the number of WUC stakeholders that the project interacted with, but also increased the variety of opinions derived from the wider communities. This was in recognition of the nature of power relationships between researchers and participants in development projects. The participants are theoretically the drivers of the process, influencing the planning and on an equal level to the researchers or NGO workers. However in reality these relationships are far more complex as NGOs are perceived as powerful providers of opportunity, commodities and status. This leads to what a report by the Wageningen University and Research Centre for Development (2004) explains as participants picking up on what the NGO expects from them and then results in the

researchers want to hear. "Statements made to NGO workers and researchers are part of an ongoing process of negotiation, not a simple statements of fact" (*Ibid*, 5). This research attempted to reduce the influence on the research by previously established relations by conducting 10 unannounced visits to communities and their WUCs who had not participated in the workshops and if present, other community members that did not have a previously established relationship with NAPE. A further advantage of this method was that women compromised the vast majority (75 per cent), of participants in the unannounced visits. This may be representative of how some of the WUCs with a low level of functionality operate as many of the female participants amongst this sub-group complained that men rarely attended WUC committee meetings or took their roles particularly seriously. One female WUC interviewee in Mukono stated "They (The male WUC members) don't care if the borehole is working; they just want to go and watch Arsenal!"

The Research Outcomes

A key factor that emerged during the research was that the majority of poorly functioning WUCs and the wider communities in which they were located had very little understanding of their rights and responsibilities as set out in the 1999 Act. When asked what were their rights to water as Ugandan citizens, answers varied from it "being a human right so that they should be provided with as much free clean water as they need", to the idea that "all water in Uganda was publically owned and shared", to more pessimistic guesses of "no rights at all". The handbook aimed to educate and inform the WUC members on their roles

and responsibilities in order to allow them to understand their rights to water and sanitation in Uganda and to provide them with some basic professional communication and conflict resolution skills that would allow them to fulfil their roles as WUC members by acting with a more professional attitude. The five page booklet, that doubles up to 10 when translated, is divided into a series of clearly defined sections. The first is a simplified summary of their rights as citizens of Uganda to water and sanitation, with reference to which act, policy, statute or constitution it is from to give it a higher level of authority. The aim of this part was to give the community a legal toolkit to either demand better services from the government or give them legal authority to act as the 1999 Act and other water-related acts had intended them to do so.

Specific examples are set out below:

- •The Water Act Cap 152 gives you the water user groups and water and sanitation committees the legal right to charge user fees for the maintenance of the water system
- •The Water Statute (1995) gives ownership of water supplies to you the users and the responsibility of managing them to the water committees

Subsequently, the handbook describes the roles and responsibilities of the community towards water and sanitation such as keeping up good practices of sanitation. It then provides each of the six members of the WUCs with a clear explanation of their individual roles and responsibilities and provides timetabled activities for certain members. It also provides a check list for the WUC to check the sanitary state of the environment as well as general tips for maintaining good levels of household and community sanitation and health. The final section contains basic communication skills when dealing with members of the

community. All of these sections are complemented with illustrations to help communicate with illiterate members of the community.

Once the handbook had been produced, a final workshop was convened where its contents were explained to the participants and which served as an efficient method of distributing copies to those community members who would be most interested and influential within their communities. In addition, district officials, low level government officials and high ranking employees from the National Water and Sewerage Corporation (NWSC) provided another outlet for knowledge transfer and the distribution of the handbook.

Since the distribution of the handbook in the Nakawa municipality in Kampala, three subcounties of Luwero and 10 villages in Mukono in April 2013, it has been used by WUCs to educate communities in the management of water sources and to improve the functioning of the WUCs. There has as yet been no systematic follow up research to evaluate its impact. However, informal reports from WUCs via NAPE describe significant improvements in the payment of water user fees because of an increased understanding within communities that it is their responsibility to finance the maintenance of their water facilities as they collectively own them. There have also been reports of improved hygiene and sanitation practices around water facilities. WUCs who have received the handbook are in theory now more knowledgeable about their rights to WASH. One example is in the Zirobwe Sub-County of Luwero District where one WUC used the handbook to demand their right to water in circumstances where an individual had recently bought the land on which their community water source was placed. This had then been fenced off. That individual was asked to remove the fence by the local government officers who made use of the handbook to illustrate the illegality of the enclosure. The community development officer within Zirobwe

appreciates the impact the handbook has made and as well as the previous case, reporting and fixing of non-functioning boreholes have improved compared to the time before the handbook became available. WUCs from informal settlements within Nakawa Municipality have petitioned the municipality to test water sources using their rights to water and sanitation, having learned from the handbook that local government has a responsibility to undertake this essential testing. As a consequence spring wells were identified as contaminated and these have been closed which should improve local health.

Conclusion

The water resource management reforms in the Global South which have taken place since the 1990s, based on redefining the role of the public sector in the management of resources, focused on an institutionalised approach to managing communal resources to allow for management and use that would not degrade the quality of those resources. The Ugandan 1999 Water Act was one of many community water management reforms to sweep across the Global South concentrating on water provision from non-conventional means such as boreholes and protected streams. In theory this is conceptually appropriate as it empowers the community, bestows a sense of ownership upon them and encourages a participatory grass-roots management system which in turn legitimises the process of decentralisation of power and reduces inappropriate government intervention. However this research has found that assumptions in The 1999 Act concerning the willingness and ability of communities and WUCs to undertake the often complex and at times highly politicised tasks assigned to them were based on over-simplistic and optimistic

expectations, with the result that their functionality has been compromised. A key factor in undermining their functionality is a lack of knowledge of rights and responsibilities within WUCs and the wider community. The research provides some preliminary evidence that the provision of a user friendly handbook that enables literate and illiterate members of the community to learn about their rights and responsibilities may help to improve the functionality of WUCs and therefore the management of WASH services at a community level. However, more systematic research is required to fully test its effectiveness, although preliminary evidence seems to be positive. However, even with the relatively small-scale evidence that exists, we believe that the findings may be of wider value to those societies which have followed the same path with respect to the decentralisation of water management to the community level.

Note (1) the handbook is available at http://www.watersecuritynetwork.org/wp-content/uploads/2013/10/Book-Nape.pdf

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