In search of the right formula: public, private, and community-driven provision of safe water in Rwanda & Uganda[1]

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Abstract

Over the last two decades efforts have been made to find the right formula or formulae for delivering services to poor rural communities. Beginning in the late 1980s, decentralization entailing the dispersal of powers and redistribution of resources and responsibility for public goods provision from the centre to local authorities assumed centre stage in public administration. This was in reaction to what was widely agreed to be the failure by highly centralized governments in developing countries to deliver basic services to their citizens. The failure justified a shift away from centralized public administration systems to their decentralized variant, with democratic decentralisation the strategy of choice for reformist governments across the developing world. Accompanying decentralization as part of the broad good governance promotion were efforts to empower local communities to participate in decision-making processes as a strategy seeking to ensure both accountability of service providers to users, and ownership over public goods and the infrastructure through which they were supplied. There is broad agreement today that the hopes of the advocates and architects of these reforms were not fulfilled. On the contrary, many of the failures and weaknesses they were intended to address proved intractable, mostly for the same reasons highly centralized systems had failed to tackle them. Indeed, it was that very intractability that led to a renewed search for a new right formula and the eventual adoption of privatization or public-private partnerships as an alternative or complement to public and community-driven action. This paper examines the evolution of these efforts in Rwanda and Uganda and analyses their impact in terms of outcomes in the water sector where private contractors were brought in to mediate between decentralized state and community in the provision of safe water in rural areas. It argues that, as was the case with democratic decentralization and associated popular participation, privatization or public-private partnership is in itself not the answer to problems of maladministration and accompanying failures in service delivery. It demonstrates that ultimately the key to effective public goods provision is capacity for vertical and horizontal coordination, inspection and supervision, and the strength of accountability enforcement mechanisms.

1. Introduction

This paper examines the delivery of safe water to rural communities in Masaka district in Uganda, and Nyamagabe district in Rwanda. It is based on the findings of fieldwork focusing on two service delivery arenas: maternal health and water and sanitation.

Masaka district is located about 150 kilometres to the south-west of Uganda's capital city, Kampala and is well-served by better than average road and other communications infrastructure. The research was conducted over 5 months in 3 of the district's ... sub-counties: Lwabenge, Kyamulibwa, and Buwunga, and in 7 villages.[2] Buwunga sub-county is semi-rural and borders Masaka town, while Lwabenge and Kyamulibwa are more remote in their locations. In terms of performance in the arena of service delivery, Masaka is better than average in national rankings.

Nyamagabe district is a 3-hour drive southwest of Kigali City, Rwanda's capital and is well-served by the largely private public transport system. In terms of service delivery, it has a distinguished recent history as a consistent top-performer with a record of meeting the goals it has set itself under performance contracts signed between district mayors and the President of the Republic. Research in Nyamagabe lasted a total of 6 months between November 2010 and September 2011. It was conducted in Cyanika, Kaduha and Musange, 3 of the district's 17 sectors[3], and in 6 villages altogether. Cyanika sector is semi-rural and is located a few kilometres from Nyamagabe town and the district headquarters. Kaduha and Musange are more remote and located at considerable distance from the district headquarters.

2. Research methods

The research was conducted through a combination of approaches: participant and non-participant observation, casual conversations, formal and informal in-depth interviews with a wide range of respondents, individually or in groups, and extensive review of official documents provided by the district and sector administrations, health facility management, and development partners.

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[2] Sub-counties are the administrative units below the district.

[3] Sectors are the administrative units below the district, below which came the communes before they were abolished by the post-genocide government when it restructured the local administration system.

3. Background

When pressure by the donor community on African governments to democratize their politics began in the late 1980s, a central objective was to encourage or force them to abandon their centralizing tendencies and decentralize power, responsibilities and resources to local authorities. Behind pressures for decentralization were a number of basic assumptions. The most fundamental was that it would allow ordinary people long excluded from decision-making by elites operating at the national level, to participate in decision-making about local-level issues that impact directly on their lives.

Particularly targeted for improvement were ordinary people's standards of living and the quality of social services they would receive. To give practical meaning to the proposed empowerment, local authorities would be availed resources to facilitate the translation of decisions arrived at in consultation with the people they led, into actions and outcomes in line with local preferences. To ensure leaders were responsive and accountable to the people they led, elections were introduced.

Elections would allow people to choose who led them and, whenever necessary, remove and replace leaders whose conduct and performance were unsatisfactory. In many African countries decentralization took place against the background of, and indeed sought to reverse, years of political turmoil and misrule, misguided administrative reforms, and economic mismanagement and stagnation. Almost universally, social service provision had collapsed amidst shortage of human and financial resources and consequent neglect.

Uganda embraced decentralization early in the 1990s and moved quickly to implement a radical programme of devolution within the framework of the by then newly-introduced 5-tier resistance council (RC) system.[4] The country had just emerged out of a long civil war during which service delivery systems already weakened by years of neglect and mismanagement had collapsed and were therefore ripe for revival and reconstitution.[5] Rwanda, on the other hand, came late to decentralization, taking its first tentative steps towards administrative reform in 2000. As with Uganda, Rwanda

[4] For an early history of resistance councils, see McKenzie Smith, J., 1993. '"Breaking With the Past?": A Consideration of Yoweri Museveni's National Resistance Movement, and of Social and Political Action in Uganda During its Government'. Occasional Papers, No.45. Centre for African Studies, Edinburgh University.

[5] F. Golooba-Mutebi, 1999. Decentralisation, Democracy and Development Administration in Uganda 1986-1996: Limits to Popular Participation. Unpublished PhD dissertation: University of London. Also Passi, F.O., 1995. "The Rise of People's Organisations in Primary Education in Uganda". In Service Provision Under Stress in East Africa, ed. Semboja. J. and Ole Therkildsen. London: James Currey.

embraced the policy more out of conviction than pressure from the donor community. The country had just emerged out of a civil war and genocide during which the entire state machinery and with it service delivery systems, had collapsed.[6]

Decentralisation was therefore seen as an imperative, both as an ingredient of much-needed political reconfiguration of the two countries, and as a mechanism to facilitate fast-paced efforts to improve service delivery and living conditions, especially in rural areas.[7] Since then, delivering safe water to their citizens has been a key objective of both governments, rendered more so by its inclusion in the millennium development goals.

4. Delivering safe water to rural communities

4.1. Sources and Providers

There is a wide variety of water sources in the study sites in both countries. They include taps, springs, boreholes, shallow wells, rain, wells, ditches, and ponds. All natural sources and many of the shallow wells and boreholes as well as artificially-made sources such as ponds, are usually located in swampy areas in valleys, away from homes which are built on higher ground. Sometimes water sources are to be found at considerable distance from where people live. Sources are in different states of repair, producing water that ranges from very clear and visually clean from taps, wells, springs and boreholes, to brackish or brown, or even greenish in colour from ponds, wells and ditches. In contrast with Nyamagabe district, Masaka has a large number of broken boreholes and shallow wells and dilapidated wells and springs.[8]

Following decentralization, in both countries overall responsibility for safe water provision at community level was vested in district authorities. In executing their functions they were to be backed up by local communities at the grassroots, whose roles were also spelt out as will become clear in the proceeding pages. In between would be NGOs, churches, private enterprises, and development partners. The following section examines the roles played by these different actors, their evolution over time, and their impact.

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[6] See, for example, M.M. Ensign & W.E. Bertrand, 2010. Rwanda:History and Hope. Lanham, Maryland: University Press of America.

[7] Kisakye, J., 1996. "Political Background to Decentralisation". In Democratic Decentralisation in Uganda: A New Approach to Local Governance, ed. S. Villadsen & F.X.K. Lubanga. Kampala: Fountain Publishers.

[8] Masaka is not unique, as these problems afflict other districts as well. See, for example, Tibyangye, O., 2009. 'Water source gives despised village new name'. Daily Monitor, April 8; Miti, J., 2009. 'Water Scarcity hits Pallisa'. Daily Monitor, march 25.

5. Rwanda

In recent times the history of water provision in rural Rwanda is traceable from 1980. By 1980 commune administrations were responsible for water provision. They employed caretakers[9] whose role was to maintain and repair water delivery infrastructure within communities. The only sources of safe water in the area at the time were protected springs (*sources amenagées).* The era of popular participation had not yet arrived, so there were no water user committees. Indeed, at the time the role which would in future be played by water user committees belonged to the technically-skilled *fontaineurs,* who worked under the close supervision of their employers.

User committees were first established after 1984, to monitor water delivery and inform the commune authorities whenever problems arose, so that they intervene. User committees were followed by the introduction of user fees. Each household would henceforth pay 100frw per annum. In addition to ensuring that users paid for water, user committees looked after water sources, including maintaining good hygiene standards by cleaning around them.

User committees were supervised directly and indirectly by the commune and sector administrations respectively. However, overtime they proved to be ineffective. In a bid to address their shortcomings, in 1989 they were replaced by *regies des eaux*, semi-autonomous associations which inherited their role of addressing consumers' concerns and also doubled as non-profit-making water-supplying bodies. Each *regie* had its own oversight committees at the commune and sector levels, membership of which consisted of local people. *Regies* resuscitated the position of *fontaineur* to repair and maintain water infrastructure. Meanwhile the government, through the sector administration, retained the responsibility for protecting wells and, with the introduction of piped water, albeit on limited scale, took on that of laying water pipes. With the introduction of piped water, the authorities also introduced a charge per container drawn from a stand pipe. Those using protected wells, however, continued to pay 100frw per household per annum.

The *regie* system lasted up to 2006. That year a basket fund, *Fonds d'Eau et Assainissement* (FEA)[10], which was dedicated to developing water delivery infrastructure, started financing water supply works in Nyamagabe. FEA finances construction and installation of water supply and sanitation infrastructure in Nyamagabe

[9] Fontaineurs in French, Kanyamigezi in Kinyarwanda.

[10] It is jointly funded by the European Union, the Austrian Development Agency and the Government of Rwanda.

and Nyabihu districts. Since 2004 the Government of Rwanda, through the ministry of local government, has required NGOs or projects to restrict their activities to particular regions in order to avoid duplication of activities and ease their coordination.

Also, FEA came about as a result of a decision to harmonize funding procedures for water and sanitation and other services and to pool available resources into one basket. It was established after the government of Rwanda secured funds from the European Union to finance water projects and pooled them with resources from the Austrian development fund which was already involved in financing work in what was then Gikongoro Province.

The harmonized funding procedures which led to the establishment of FEA are now used for all water projects in the district. The district administration conceives water supply projects and submits proposals to FEA for funding. When a project is approved, FEA gives the required funds to the district to finance implementation. Successful application for funding is, however, dependent on the project in question aiming to supply water to a large number of people who are not served by other sources. Under FEA, user committees are back. The Fund insists on their establishment to manage water supply infrastructure once it has been built or installed. In addition, it sensitizes the public about the imperative to safeguard water infrastructure and about the importance of good hygiene.

With the introduction on large scale of complex water delivery systems the district authorities realized that the *regies* lacked the capacity, experience and organizational sophistication to manage them. The need for efficient management to guard against misuse became manifest. Also, the harmonized funding procedures envisage efficient management of FEA-funded infrastructure. Consequently, both the provision of water services and the management of water resources were privatized. After a successful tendering process, a local co-operative, COOGEIAMIR won the contract for Cyanika sector. In Kaduha and Musange the winner was COFOMAMEKA, also a local cooperative.

The contracts signed between the district administration and the co-operatives outline each party's responsibilities. The district owns the infrastructure and is the overall supervisor responsible for any extension work and repairs requiring expenditure of more than 100000frw. The cooperatives are responsible for maintaining the infrastructure, supplying water to the population, advising the district administration about necessary innovations or improvements in the water supply system, and ensuring hygiene at water points. The price of water in each location is set by representatives of the district, the private operator concerned, and water user committees. Once determined, prices

cannot be changed by any party without consultation with the others. The contracts also include management of protected water sources. According to the harmonized procedures, for each pipeline there must be a water-user committee to represent the interests of the consumers, of whom there are 3 categories:

- Those, including public bodies such as schools, health centres, and public offices, with piped water on their premises.
- Those who fetch water from public taps
- Those who fetch water from wells

The private operators engage individuals to sell water on their behalf, and agree with them a formula for sharing the proceeds. In addition, the operators are supposed to pay fees to the district administration for the infrastructure. Where piped water is pumped using electricity from the main grid, they pay charges to the national water and electricity agency (RECO-RWASCO[11]).

Piped-water collection points are located in high-settlement areas at main road junctions or in other locations which are easily accessible to users. There are 2 types of public piped-water collection points: kiosks and stand pipes. Vendors working out of kiosks are able to use them to sell things such as fruits, salt, sugar, match boxes and soap to the public. The areas surrounding water kiosks and stand pipes are usually well-looked after and tidy. There is usually no queuing up for water, not least because of the multiple sources available within communities, including protected natural springs and wells.

Natural sources are protected by district administrations and their development partners, including NGOs. The water is available free of charge, which is why, with very few exceptions, those who cannot afford to buy water from stand pipes or kiosks or who live in lowlands where there is no piped water[12], still have access to safe water from alternative sources. Nonetheless, every household within a spring's catchment area should pay 100frw per year towards maintenance of the infrastructure. However, no one pays, because no one goes around asking for the money. Even the private contractors do not bother to execute a task provided for in their contracts with the district administration. Observations suggest it would require complex and costly logistical arrangements to execute. Given the small amounts involved, collecting them

[11] Rwanda electricity corporation-Rwanda Water and Sanitation Corporation

[12] Piped water is supplied only in high-land areas, partly as an incentive to people living in valleys and lowlands to move to higher ground.

would probably cost more than the expected revenue, which may explain why the contractors have not taken it on.

Protected springs are supposed to be taken care of by the contractors. To facilitate them in this role, including carrying out repairs and routine maintenance, the Ministry of Infrastructure and the district administration gave them some equipment and spare parts. However, they generally neglect that role because there is no money to be made from it; people do not pay for spring water. In each community protected springs are taken care of by people elected or nominated by fellow residents. Such persons usually live within the vicinity of the water source they are entrusted with looking after. Specifically, their role is keeping the water source tidy and free of vegetation, and making sure that users do not mishandle or damage the infrastructure. The nominated person is exempted from routine communal work which is obligatory for everyone aged 18 years and above. They answer to the village leadership. When problems arise, they are required to inform the village coordinator who conveys the message to the cell administration and finally to the contractor.

Nonetheless, in Cyanika sector COOGEIAMIR assumes its responsibility to repair protected sources when the infrastructure gets damaged. Whenever there is a technical problem such as pipes bursting or being vandalized, it carries out the necessary repairs to ensure people continue having access to safe water. The same cannot be said for COFOMAMEKA in Kaduha and Musange, though, where the job of looking after protected sources is left to the users themselves.

It is clear from the discussion that in Nyamagabe district the business of delivering safe water to rural communities is ensured by the combined efforts of multiple actors, each performing its functions, albeit not always satisfactorily. Thanks to the all important coordinating and oversight functions of local authorities which they perform with ample commitment and diligence, themselves stemming from active oversight and intervention from the central state, no actor transacts their business in ways that render the delivery of safe water impossible or unnecessarily difficult.

6. Uganda

6.1. The District Administration

The main roles assigned to the district administration are planning, coordination, supervision, and monitoring. In consultation with other actors in the sector, it is required to design work plans, allocate resources, and coordinate the implementation of delivery activities. Consultation takes place during the annual district water and sanitation coordination committee meetings. As part of its coordination, supervision and monitoring functions, it is supposed to ask for and receive on a regular basis reports

from all actors in the water sector and report to the central government and development partners, particularly on the status and progress of projects undergoing implementation. District officers in charge of the water sector are supposed to supervise on-going projects to ensure that the quality of work is up to standard.

Through health assistants based at the sub-county level[13], the district administration is supposed to monitor all water sources to collect and update information about their number, functionality, safety, and the number of people they serve. The objective is to facilitate the collection of data about general water availability and accessibility. Through monitoring health assistants are meant to ensure that communities maintain good hygiene at the sources through regular cleaning. It is also the district administration's responsibility to ensure that water is disease-free and safe for consumption through quality testing and appropriate intervention where it is found to be unsafe.

It is also required to submit to the Ministry of Water and Environment annual work plans and budgets for activities funded by the central government.[14] Resources from the central government and development partners are supposed to be invested in water-source construction, rehabilitation and repair. Only 8 percent of the district water development grant should be reserved for repairs, and only those which are beyond the capacity of local communities to pay for.

Through the water department, the district administration is supposed to train different stakeholders in the water sector, including water-user committees, and community-level technicians such as hand-pump mechanics[15] whose role is to repair damaged sources. Through sub-county-based water officers, it is supposed to train beneficiaries and technicians in water-source operation and maintenance.

6.2. **Lower-level local authorities**

As with the district administration, its sub-county and village counterparts are charged with specific water delivery responsibilities. Village leaders together with sub-county counterparts are supposed to identify local water-related priorities and communities which need water facilities. They are supposed to enforce regulations governing the use of water sources, including payment of user-fees. They are responsible for assisting private contractors to identify sites where water sources are to be built, and supervise their work. Sub-county authorities are supposed to link communities with the district water department by forwarding their requests for water sources after receiving them.

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[13] The policy-implementing local government level below the district is the sub-county (LC3), followed by the village (LC1) farther down.

[14] The District Water and Sanitation Conditional Grant

[15] They repair broken-down boreholes and shallow wells. Fairly large numbers of hand-pump mechanics have been trained in the last two decades so that they can keep water sources in good repair. The idea is for them to be hired by local water-user committees and paid with proceeds from user fees.

6.3. Local communities

In line with longstanding fashion[16], local communities are expected to participate in planning processes in bottom-up fashion. They are supposed to start by expressing their need for safe water in writing.[17] Community leaders convey the letters to the sub-county authorities who in turn write to the district water department. The needs are considered during budgeting and integrated into the district budget. Once resources have been secured, whether from the district administration or other sources, beneficiaries are required to participate in the construction of water sources. Originally they were required to make cash contributions, the intention being to create a sense of ownership over water facilities.

Depending on the technology involved, there are specific amounts of money that community members would be required to contribute before the delivery of any water facility. For protected spring wells, 45,000 shillings was required; for deep boreholes, 200,000 shillings; for shallow wells, 100,000 shillings, whereas for borehole rehabilitation required 90,000 shillings. The contributions were meant to be collected either by village and sub-county authorities or, where they had already been established, water user committees, after which they would be forwarded to the district water office for banking.

Difficulties experienced by officials in trying to collect the money from people who claimed they did not have any, forced a change in approach to requiring communities to contribute in other ways. That is how some came to donate land where water sources are located, provide local building materials such as sand, stones, free labour, accommodation, and also food for hired technicians. In addition, during construction of water sources communities may choose some of their members to provide security and ensure materials, tools and equipment are not stolen. Also playing the security role are people who reside near water sources who, because of their proximity, may be elected as care-takers to prevent theft of components and parts of shallow wells and boreholes. Further, when shallow wells or boreholes break down, some locals volunteer to safeguard them against theft and vandalism by dismantling and keeping them in their homes until they are repaired. When private contractors are doing their work, beneficiaries monitor and supervise to ensure that it conforms to agreed standards, of which they would have been made aware by district water officers.[18] They play these roles regardless of which actor finances the construction. Another task for local

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[16] Chazan, N., 1982. "The New Politics of Participation in Tropical Africa". Comparative Politics, Vol.14, No. 2, January.

[17] There was evidence at the district water department office of several applications submitted by different communities for construction and rehabilitation of water sources in their areas. They were addressed to the sub-county administration and the water department.

[18] Before contractors embark on implementing water projects, district water officers and sub-county health assistants are required to mobilize beneficiaries and sensitize them about the impending activities. Among other things, they are required to inform them about the specific equipment to be installed and the quantities of building materials to be used.

communities is the election of water user committees either before or after the construction of water sources.

6.4. Water user committees

Before the construction of a water source begins, the local health assistants together with community leaders are required to mobilize community members for a meeting where they are supposed to elect members of a water user committee. The role of the health assistant is to guide the community in the roles and responsibilities of the water user committees. In most cases they are elected after the water sources have been built or installed. There are, however, water sources with no user committees, mainly where they are delivered without prior sensitization of the community.

A user committee comprises seven members: the chairperson, treasurer, secretary, care-taker, and three community representatives. The care-taker, otherwise known as *kalindaluzzi,* monitors the water source to prevent children from playing around it and, where applicable animals from accessing it. The three user representatives link the users and the committee and help mobilize them for public meetings. The key roles of user committees are to ensure sustainability of water sources by mobilizing users to pay user fees[19], enforce bye-laws regulating water-source use, ensure hygiene around them, and protect them against contamination by animals by, for example, fencing them off. They ensure that the vessels used to collect water are clean, and impose fines on users who evade cleaning water sources. With the exception of people who reside in trading centres and buy water from vendors, water in rural areas is free of charge.

There are also instances when communities make their own wells. It happens when sources such as shallow wells and boreholes break down and alternatives have to be found quickly, and also when people in water-stressed areas dig ponds or ditches to harvest rainwater during the rainy season.

6.5. Non-Governmental Organisations, Churches and other Development Partners

Over the last two decades, NGOs, churches and church-affiliated groups and some development partners[20] have been involved directly in efforts to provide safe water to communities. Their general approach is underlain by the principle that their interventions must be in response to expressed need. They require beneficiaries to petition for water sources through written submissions and, when their requests are granted, contribute to the total cost of implementation as well as create mechanisms to

[19] Users are required to pay user fees on a regular basis in order for user committees to build up resources for repairing broken sources.

[20] During research the Japan International Cooperation Agency (JICA) was drilling boreholes and providing technical assistance to the District Water Office.

ensure operational and maintenance sustainability of the sources.[21] The mechanism of choice for ensuring sustainability is the user committee at village level.

In addition to building new water sources in public spaces and individual homesteads, they have rehabilitated broken ones.[22] As with the district administration, when they fund projects they provide cement, wages for technicians and equipment, while the beneficiaries participate in the same way already described. In addition, they train members of user committees in how to discharge their roles and sensitize them about those of other stakeholders. Specifically, they are taught how to design bye-laws that govern water-source use and to ensure that communities maintain high hygiene standards around the water sources.

6.6. Private sector contractors

Private sector contractors are cross-cutting service providers implementing projects on behalf of both the local authorities and other actors. For the district administration, the reasons for bringing in private firms to implement water projects included the need to reduce the workload within under-staffed district water offices which still had to implement district-wide water activities, including construction and repair. The heavy workloads had led to delays in the delivery of water services to communities.

Also, the district administration lacked technology and skills for project implementation. As result of the lack of equipment and machines such as motorized drilling equipment, excavators, dewatering pumps, drilling ridges and expertise to use them, local governments were forced to tender out water delivery activities. For projects funded by the public sector, private contractors are therefore involved as service providers under the supervision of district water engineers.

The involvement of private firms in water delivery activities in Masaka district started in the year 2000. Since then private contractors have been involved in building and installing water sources such as shallow wells, ferro-cemented water tanks and boreholes, in protecting spring wells, and in repair and rehabilitation work. Also, private firms have been involved in the supply of vital parts used in the construction, installation and repair of water sources.

Also, in 1996 the district administration organized training for private hand-pump mechanics following the drilling of boreholes in every sub-county. After the training the mechanics were given equipped tool boxes and bicycles to ease their movement while

[21]See, for example, 'An Overview of Caritas MADDO Activities with Special Reference to Water & Sanitation Services. Presentation to the Ecumenical Water Network Conference in Entebbe Uganda by Lubega John Muwonge 22nd May 2007. Also, Caritas MADDO (Masaka Diocese) Water & Sanitation Department Watsan activities progress report, September 2009 to May 2010'.

[22] Besides storage tanks placed in public spaces and private homes, others are given to schools and health units, with the proviso that the water harvested is shared with other members of the community.

carrying out repair work. Each repair they carried out was to be paid for by water user committees out of proceeds from user fees. The introduction of hand-pump mechanics sought to minimize the risk of water sources breaking down and lying wasted in the bush. Overtime the mechanics have received further training in different aspects of construction, installation, and repair of boreholes, shallow wells and hand-dug and augured well by different development partners and the government's department of water development (DWD).[23]

6.7. Technical support units

They are technical back-up structures of the Directorate of Water Development in the Ministry of Water and Environment. Their staff are employed and remunerated directly by the Ministry. They were set up in 2000 in different regions of the country to provide much-needed technical and managerial support to district administrations and help improve the effectiveness of project implementation. They were also intended to facilitate the adoption and application of new water technologies and national policies and sector approaches. Another of their roles is quality assurance in facilities built by private contractors. They also comment on district work plans before they are submitted to the central government for scrutiny. TSU7 which covers the whole of the southern region is headquartered Masaka district. Periodically it brings together political leaders, government technocrats, the private sector and NGOs with activities in the water sector to share experience about implementation of work plans and whatever progress might have been made, as well as enable the Ministry to explain policy-related issues.

In Masaka the unit faces several challenges in trying to discharge its roles.[24] The main ones include refusal by communities to participate in the construction of boreholes and shallow wells; limited involvement or none at all of sub-county extension workers such as health assistants and community development officers in water activities; abdication of responsibility by local communities to local leaders; lack of coordination between it and the district water office.

7. Assessing effectiveness: Service delivery in practice

All the actors have played their designated roles to different degrees of success. Their contribution is exemplified by the large numbers of improved water sources providing communities with safe water. The protection of natural wells and springs and the introduction of boreholes and shallow wells and different types of reservoir tanks have done a great deal to improve the quality of life of many rural communities.

However, there are major weaknesses in provision stemming from lack of human and financial resources, and contradictions between the way communities live or want to

[23] Interview with Richard Kabanda, a private mechanic (date?)
[24] Interview with Unit head (date?)

live and the assumptions underlying some of the policy decisions guiding water delivery to poor communities. This section looks at the specific roles and experiences of the different actors in the water delivery arena.

7.1. The district administration

Both the supervision and monitoring roles of the district administration have not been entirely satisfactory. For example, there are several instances where private firms have built and installed new water sources using second-hand rather than new parts. Also, although water officers are required to monitor the functionality of water sources and respond quickly when they break down, including with advice about how to prevent a re-occurrence of the situation, this rarely happens. Many water sources fall into disrepair and remain broken for long periods of time. Although there are guidelines for water provision that envisage quality-testing, only a few water sources are tested, even where they are shared with animals. Where testing takes place, it happens only in a few cases where there are strong indications of active contamination.

7.2. User committees

Many water user committees do not function as envisaged, or even at all. First, water users refuse to play a central role envisaged for them: contributing user fees to a common kitty dedicated to funding repairs and maintenance. User fees are supposed to be collected monthly and deposited in bank accounts held by respective water user committees. However, during the course of the research no water user committee was found to have a bank account. In all cases attempts to collect user fees were made only whenever water sources broke down, and even then, not always successfully, because many users claimed not to have the money.

In addition to people claiming not to have money, other factors influenced some of them to refuse to pay. For example, when campaigning for elections, some local politicians insist that it is the role of the government, not members of the public, to repair water sources. Also, having access to alternative sources of water, influences users not to pay fees. Further, lack of trust in members of the water-user committees who are supposed to collect the money is also a hindrance; people do not trust them to use the money properly, and in some ways this is a comment on the degree to which villagers trust or mistrust each other.

Also, there are committees whose members were not sensitised by over-stretched and logistically-constrained district officials about their roles and how to execute them, and who therefore do not what to do and how to do it. Elsewhere some members of user committees attributed their redundancy to lack of motivation in the form of payment or rewards for the work they are required to do. This is despite people being told, prior to elections, that the role of user committee members is purely voluntary.

Also, in some communities conflicts between members of water user committees and water users were reported to have led many committee members to abandon their

responsibilities. This was the case where they had attempted to enforce bye-laws that govern the use of water sources by, for example, imposing fines on those who do not participate in cleaning water sources and confiscating dirty jerricans from children who play around the water sources. Overstaying on user committees also affected members' morale and motivation. Chairpersons of committees whose members had absconded usually tried to soldier on but gave up and sought to step down, yet no one wanted to put themselves forward for the potentially demanding and not at all rewarding role. Those unable to give up their positions because no one wanted to replace them also eventually gave up.

As a result of problems encountered by user committees, few sources were functioning, clean, and well maintained in many of the communities studied. In cases where they were, some of them were looked after and maintained by individual households. These were usually the households that had donated the land on which the sources had been built and whose members therefore felt obliged to maintain them, not least because they wanted safe water for themselves. The other reason for taking on the role was because alternative water sources were far away from their homesteads. However, some people's motivation had to do with the sources being a source of income, as was the case in Buwunga trading centre where a water vendor looked after the well from which he fetched water for sale. In a few cases previously broken wells had been repaired by national- or local-level politicians seeking election or re-election.

7.3. The private sector

One advantage with private contractors is that they deliver water projects within a shorter period of time and on a wider scale than was previously the case with understaffed and over-stretched district water offices. However, where they have worked without close supervision, the quality of water facilities they delivered is poor. Many of the sources they built break down quickly, while others yield very little water. In some cases they cheat on parts and carry out incomplete installations, while in others they use second-hand parts. In the end the water sources serve communities for short periods of time and break down. Here part of the problem is the profit-orientation of the contractors, and part the failure by local authorities and users to supervise and monitor projects under implementation.

Another source of poor quality delivery is the awarding of tenders by local contract committees to firms which are non-specialist, unqualified, or which lack experience in the water sector.[25] To make matters worse, these same firms sub-contract other contractors who work under the instructions and supervision of unqualified personnel. Also problematic is the non-involvement of district water engineers in the evaluation of bids and the awarding of tenders. The engineers are simply required to endorse the terms and conditions of implementation and approve the bills of quantities of materials to be used.

[25] Interview with county water officer, Buwunga (date?)

Also, a shortcoming of contracting out is that it does not instill a sense of ownership over water sources into communities. Driven by profit considerations, the contractors do not want to spend time on activities designed to instill a sense of ownership in users. They prefer to work quickly and move on to the next task. For example, the need for communities to contribute some inputs is neglected. Some firms simply buy whatever materials beneficiaries are supposed to contribute in order to reduce the time they would otherwise have to spend sensitizing communities, collecting cash or in-kind contributions, and overseeing the election of water user committees before the work starts. Also, some firms and hand pump mechanics steal parts from boreholes and shallow wells for use in installing and repairing others elsewhere.

7.4. The technical support unit

While the technical support unit has encountered difficulties related mainly to contextual factors and the financial and organizational weaknesses of the district administration, its establishment has led to the achievement of many successes. They include more staff recruitment, drilling of more shallow wells in the district, handing over of water facilities to communities, and promotion of domestic rain water harvesting. The unit has especially been useful in supporting the district administration and the water department in planning, reporting, procurement and in overall implementation of water activities.[26] It has also contributed to overall improvement in the preparation of water sector plans, procurement planning and management, adherence to technical specifications, and built the capacity of district water officers in the use and application of new water technologies. Finally, the TSU provides a much-needed link between the district water department and the ministry of water and environment. Through it the department communicates with the ministry regarding newly-introduced water sector policies, priorities, and resource allocations.

8. Accounting for weaknesses in provision: discussion and conclusions

There are several explanations for the shortcomings in safe water provision. First, district water departments are severely understaffed, the few members of staff overloaded with tasks and overstretched and unable to play their roles as envisaged. The heavy workloads have led to delays and failures in the fulfillment of a whole range of responsibilities, including supervision, inspection, monitoring and co-ordination. Also, resource constraints and related logistical difficulties prevent officers such as sub-county health assistants and community development officers from playing their monitoring roles within communities. As a result they are often unaware of the status of water sources or even that of water user committees.

For communities, the lack of a sense of ownership over water projects and infrastructure is a big problem. It stems from a deeply-entrenched belief that the

[26] In interviews with the former Assistant District Water Officer of Masaka district currently acting as the District Water Officer engineer for Lwengo district

authorities, not users, are responsible for providing and maintaining water sources and is an impediment to the achievement and sustainability of collective action which would ensure that water sources are kept clean and in good repair. Also missing are two important ingredients of viable and durable collective action: incentives and their application, and sanctions and their enforcement.

While users are required to perform specific functions to ensure they receive the safe water they need, the mechanisms which were established to ensure that they do are inadequate for the task. First, the contribution of user-fees as a voluntary undertaking and the consequent free-riding by those who would rather not pay means, as studies of collective action would predict[27], that the latter can carry on drawing water in the same way as those who contribute. The outcome, all so easy to predict, is the discouragement of those who pay, who then stop doing so, leading to the collapse of the mechanism as has indeed happened in most places in the study sites.

A key factor here is the absence of enforcement mechanisms. While in theory local leaders working with user committees are mandated to enforce the payment, the manner in which they acquire their positions, which is through popular elections, rules that out. Where they attempt to enforce payment, they are resisted and threatened with withdrawal of support at the next elections. Throughout the study sites local leaders have not been able consistently to enforce by-laws because they fear antagonizing potential voters. They fear that enacting and enforcing by-laws will make them unpopular among local people who may in turn vote them out of office. The emergence of local leaders through elections is therefore inimical to the proper functioning of a system that requires them actively to enforce regulations, a role which is almost certain to make them unpopular.

The situation of user committee members is not any different. They, too, are elected. However, that is not really the central problem. Rather, it is the voluntarism involved and the aggravation they encounter in trying to enforce the payment of user fees and of hygiene standards. Those who have attempted to enforce regulations face hostility from their neighbors who believe that the tasks required of them should be executed by the authorities instead, or who, already burdened with problems of day-to-day existence, would rather do without extra demands on their time. Resistance and sometimes aggression from fellow villagers is a powerful disincentive for carrying on with the heavy tasks with which they have been entrusted.

Enforcing hygiene standards is a particularly complicated task, rendered more so by some users' pursuit of income-generating activities such as farming, brick making, car washing, and alcohol distillation around water sources. While they make the

[27] See, for example, Mancur Olson, 1971. The Logic of Collective Action: Public Goods and the Theory of Groups. Cambridge, Massachusetts: Harvard University Press.

surroundings dirty and unhygienic and raise the risk of contamination, neither user committees nor local authorities are able to evict them for the reasons already mentioned.

There are also other sources of poor hygiene and possible contamination. Many sources are surrounded by bush and littered with debris such as crop residue and polythene material. Cattle grazing in surrounding areas are allowed to drink directly from them, with the attendant risk of contamination, including through defecation. Water run-off from rain easily flows into sources, adding to the risk of contamination. When filling their containers, people fetching water from unprotected springs step into them. This possibly explains why in some ponds, ditches and wells, water tends to be brackish. Where the sources have over-flow drainage trenches, they are often clogged up with debris, which causes the water to stagnate. Local leaders are not unaware of these situations. That they persist is evidence of their failure to discharge their duties, which in itself is the outcome of the poor design of enforcement mechanisms.

It has not always been like this. In Uganda in the past, officials responsible for enforcing bye-laws within communities were never elected; they were appointed and therefore shielded from the electoral pressures today's would-be enforcers face. In that way they could enforce bye-laws and administrative measures without fear of losing their jobs, as long as they performed their functions diligently and effectively. The Rwandan situation suggests that the approach to maintaining water sources in good repair there, which entails the community choosing one individual to act on everybody's behalf, is more realistic and workable than Uganda's collective action approach.

Our findings suggest that as a tool for improving service delivery in rural contexts, decentralization's success lies for the most part in creating possibilities for rationalizing delivery mechanisms and opening them up to user pressure and influence through popular participation, one of the ways in which, reformers expect to improve both service quality and sustainability. Available evidence from the history of service delivery in developing world contexts[28] shows that highly centralized systems do not offer the same possibilities for rationalization, let alone popular pressure from service users.

[28] Crook, R. and J. Manor, 1998. Democracy and Decentralisation in South Asia and West Africa: Participation, Accountability and Performance. Cambridge: Cambridge University Press. Also, Aziz, A & D. D. Anorld, eds, 1996. Decentralised Governance in Asian Countries. New Delhi: Sage Publications.

Indeed the case for decentralization is often built on the argument, among others, that the absence and impossibility of popular pressure in centralized systems is responsible for poor service delivery, and that efforts directed at bringing about change must provide for it. Our research, however, shows that while clearly decentralization and associated reforms have brought about tremendous change, the overall story is not one of run-away success, not least because of gaps between the reality of life in poor communities and how policy experts imagine and envisage it. For example, while the idea behind the establishment of water-user committees makes sense from a theoretical point of view underlain by notions of the importance of participation and its implication for sustainability, they have not lived up to expectations. At the root of their failure are tensions between the assumptions that underlie their justification and the realities of intra-community social organisation and relations and popular views about the proper role of the state in service provision. As already pointed out, these tensions explain why, for example, bye-laws regulating water-source use are generally not enforced, and why attempts to enforce them have generated intra-community conflict.