Private sector involvement in rural water supply;

Case studies from Uganda

by Lucrezia Koestler
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Community management has for a long time dominated the scene of rural water supplies in developing countries. However, it has failed to produce the desired results in terms of sustainability and functionality, and it is time to question the very nature of the management model instead of blaming practitioners and governments for poor implementation. Private sector involvement offers many possibilities in terms of increased motivation and efficiency, but is not suitable in all communities. Especially in poorer communities, retaining some community management structures can be the only way to make operation and maintenance affordable. In addition, the committees and private operators need adequate and continuous support to perform their roles in an effective way. This study looks at four management models in Uganda that involve the private sector to illustrate some of these points.

Key words: rural water supply, private sector, community management, Uganda

Introduction

For the last two decades, community management has been promoted as the most appropriate and sustainable management approach for rural water projects in developing countries. This approach is based on important investments in mobilisation and capacity building and puts the entire responsibility for operation and maintenance of the water system on the rural communities. This includes management and recovering recurrent costs through a voluntary water committee. Community management assumes that enough social capital can be built initially within the community to continue to run the system on a long term, and ideally this has positive side-effects such as community empowerment, gender awareness and self-esteem. However, without the continuous presence and mobilisation by an external agency, most communities fail to perform these tasks and the water system falls into disrepair. The voluntary work and mobilisation is difficult to sustain in the long term as social structures in the community are changed by economic development and migration (Carter *et al* 1999).

There are many numbers on the table, but reliable documentation about the failed projects is hard to get. This has many reasons, and as we speak, donors, government policies and NGOs continue to promote community management as the main approach in rural areas. Failures are attributed to the lack of resources for follow up, poor implementation or a poor enabling environment. NGOs and donors like to report success stories and not failures, and since community management represents the *raison d'être* of a large amount of NGOs, criticising the approach would be arranging their own demise. This study argues that it is

time to recognise the elephant in the room and question the management model *per se.* It is time to analyse its strengths and weaknesses and look for alternative models such as government partnerships and private sector involvement.

The private sector in a rural setting

One of the possibilities is to look at ways to extend private sector involvement from urban to rural areas. After taking a closer look, it can be found that many community managed rural water projects have spontaneously adopted private sector elements out of need to sustain motivation and deliver a service consumers are willing to pay for (Metha *et al* 2007). Some leading NGOs and government have even adopted private sector involvement in their implementation strategies and policies, like in Rwanda and Kenya (Metha *et* al 2007 and IDA 2007). However, for most practitioners that know what a rural setting in a developing country looks like, there are too many constraints to even venture into this direction.

The private sector is motivated and sustained by the possibility of making a profit. This assumes a demand, and also the possibility to get inputs at a reasonable price to supply a satisfactory service. The rural setting puts serious constraints on all these aspects. Many rural communities are small and remote with low purchase power and demand and no possibility for economies of scale. Input supplies are costly due to inaccessible roads, lack of power and telecommunications and long distances to financial services. In addition, most rural areas in developing countries are seeing a strong rural-urban migration, and the first ones to move are the entrepreneurs and the educated. How can the private sector be attracted to such a scenario, and once there, how can it be convinced to stay?

Before moving on to the case studies, it is important to clarify what is meant by the private sector in the first place, and how it can be involved in the operation and maintenance of rural water supplies. The terms private sector participation and privatisation provoke many reactions, especially after the mixed experiences of public-private partnerships in developing countries' cities. The private sector is associated with ruthlessness, neglecting the poor and only being motivated by profit (Woodhouse *et al* 2004). At the same time, its involvement can considerably improve the efficiency of public services; it makes a business more flexible and consumer-oriented and manages the resources more efficiently (Howard 2005). In the context of this study, private sector involvement in rural water supplies will be understood as the involvement of an entity or person, on a formal or informal basis, to supply operation and maintenance services in exchange for money. The private entity should be formally asked by the owner, government or community to deliver a certain level of service, and the responsibilities should ideally be outlined in a contract. The private entity should also to a certain extent be motivated by the possibility of making profit. The private sector in rural areas is therefore mostly informal, with little capacity and only a few employees.

Rural water supplies in Uganda

In order to analyse what is happening on the ground in terms of private sector involvement in rural water supplies, four case studies were selected in Uganda. Uganda is a country that has seen a relatively stable economic and political situation the last 20 years, and economic

development is slowly expanding from urban to rural areas. The country is interesting because even in small rural communities people often pay for water from vendors, and trade and the cash economy are increasingly spreading to even small villages. In addition, the private sector plays an important role in managing water supplies of small and large towns through performance and service agreements. Many of the rural trading centres aspire to become small towns, and are therefore eager to adapt the same management system as their models.

At the same time, the Ugandan National Water Statute from 1995 and the National Water Policy from 1999 strongly recommends community management for rural water supplies, with support provided to the communities by the districts (MWLE 2004). Since 1997 the water sector has gone through a profound decentralisation, privatisation and sector reform process, and a sector wide approach (SWAP) was adapted in 2002. Rural water supplies are now fully administered by the districts, that receive funds through conditional grants from a basket fund, and contract construction to the private sector. However most districts are young and poorly equipped to keep up with population growth in building new systems, let alone supporting and maintaining existing ones (MWE 2007).

Four management models

Despite the predominance of community management, several NGOs and also government funded projects are now experimenting with involving elements of the private sector in operation and maintenance of rural water supplies in Uganda. The objective of this study was to analyse strengths and weaknesses of different management approaches for rural water supply, and to identify potential management models that involve the private sector. In this context, four management models were studied in detail through field visits and desk studies. Key informants such as the project coordinator, committee members, technicians, private operators and local leaders were interviewed through semi-structured interviews, and the performance of each project was assessed by using the sustainability snapshot tool developed by Sugden (2001). This tool lets community members rate the availability of finances, technical skills and spare parts from 1 to 3, and the project with the highest score is the most sustainable. In addition, four experts were interviewed about community management, private sector involvement and the Ugandan water sector in general.

The four management models include different technologies, socio-economic settings and support mechanisms, and were analysed with the only goal to give a picture of what is already operating and working reasonably well. This resulted in a reduced attention to potential failures or problems with private sector involvement, since only the successful models were chosen. In addition, the research was limited by time and resources constraints, and some information is questionable because not all desired interview objects were available in each location.

Katakwi and Amuria handpump mechanics associations

A detailed description of each management model is beyond the scope of this paper, but a short summary is necessary to illustrate the findings. The fist case study is of two associations

of handpump mechanics in Katakwi and Amuria districts, in the relatively poor north-east of Uganda. The approach of area pump mechanics that are paid by the communities to carry out maintenance has been tried in many areas of Uganda, with mixed results. The main problems have been quality control, risk of exploitation of the communities by hiking prices, lack of training and lack of preventive maintenance (Carter and Danert 2003). In this case, two associations were created in 2006 by WaterAid to address some of these problems. The associations supervise the work of the mechanics, regulate prices together with the districts and report to the districts on a regular basis. Preventive maintenance is ensured by a reporting system where communities have to record all activities around the handpump on a maintenance form that is collected by the association. If the association finds the pump needs following up, it will send a mechanic. The district supports the associations and has committed itself to organise two refresher trainings per year. The system seems to work well, and downtimes have been considerably reduced. The success of the project is due to the long term commitment and support of the district to the association, and by the fact that despite the relatively poor communities, they have a high motivation to maintain their water source because of few alternative sources. In addition, the concentration of handpumps is quite high in the area, and two mechanics per sub-county are able to get enough money for a living.

South Western Towns Water and Sanitation Project

All the three other projects are piped water schemes, with mostly public taps but some also have a limited number of house connections and connected institutions. The second case study is a project that has been running since 1996 funded by the Austrian government; the South Western Towns Water and Sanitation Project (swTws). This project includes the private sector right from the start, and promotes a management model with an appointed water board that signs a contract with a private operator in charge of daily operation and maintenance. Where a private operator was not available, the project trained local people on the job. A certain percentage of the total collection from water sales goes to the private operator, and also water board members receive sitting allowances. The decisive feature of this project is the follow up organisation, also funded by international donors, the so-called Umbrella. Each village has to send monthly financial reports to the Umbrella, that also conducts quarterly audits, monthly water quality controls, organises trainings, provides technical support and help for larger repairs and even interest-free loans for extensions. Three water schemes were visited from this project, out of which two have been running successfully since 1999. The project sites scored high in sustainability, and the projects supported by the Umbrella have functionality rates above 90% (Berabose 2008).

Namasale

The third case study, in contrast, had no organised support at all. Being a part of a pilot project, Namasale was abandoned after implementation and only helped in some cases by engaged individuals or the donor Scan-Water. It has a relatively low degree of private sector involvement, if it is possible to talk about private sector involvement at all. A democratically elected water committee is responsible for financial management and employs two technicians and some kiosk attendants. Due to high operation costs, the salary for the

technicians does not correspond to the commercial rate and is only seen as a token of appreciation. Nevertheless, the project is working well, mostly because of an extraordinary ownership feeling of the community. This has mobilised funds and political will in the sub-county local government.

Kabango

The fourth case study is interesting because also here the private sector was involved from the beginning, and the same private operator also manages three other villages in the area. This enables cross-subsidisation, without which the private operator would not have been able to break even. The piped water system supplies water to a fast growing trading centre that is located close to a sugar factory attracting workers from many different regions. An elected water board has an elaborate contract with the private operator, involving performance indicators and safeguards for the consumers. The water board has an overseeing role and is also paid sitting allowances, and the private operator has to report on a monthly basis to the district. WaterAid helped to set up the management model, and trained and supported an official at the district to give adequate follow up and support. The system seems to work well, but after only one year in operation, it is too early to draw general conclusions. The distribution of responsibilities of the different case studies is represented in the table below:

Table 1 – Modalities of private sector involvement in case studies

Case study	Ownership	O&M management	Day to day operation	Preventive maintenance	Minor repairs	Major repairs	Support
Katakwi-Amuria handpump mechanics association	Community (District)	Water source committee	Caretaker	Caretaker/ HPM	HPM	District	HPM Association, District, Donors
South Western Towns Water and Sanitation Project	Sub-county	Water board	Scheme operator	Scheme operator	Scheme operator/ Umbrella	Umbrella	Sub-county, Umbrella, District
Namasale	Community	Water committee	Technicians	Technicians	Technicians/ Scan-Water	(Scan-Water) in theory District	Scan-Water on a temporary basis, in theory District
Kabango	District	Water board/ private operator	Private operator	Private operator	Private operator	Private operator	District, WaterAid, MWE

Community management vs. private sector involvement

All these case studies show that even in a rural setting and relatively small and poor communities, the private sector can be successfully involved. At the same time, it shows that community management and private sector involvement are not two models that are mutually exclusive, but that they can be successfully combined. All case studies retain certain elements of community management, and benefit from some of the positive effects that come with this approach. This can be expressed by placing the case studies on a continuum with a high and low degree of community management:

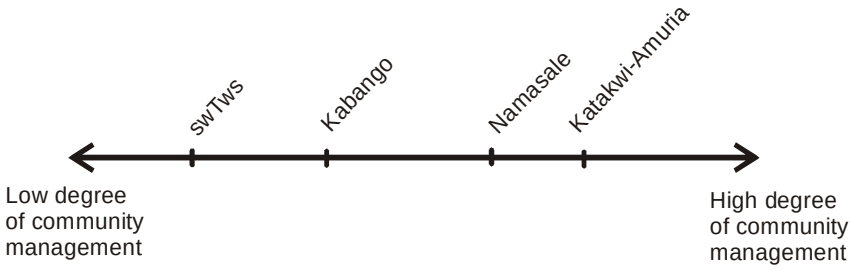

Figure 1 – Degree of community management

The case studies were placed on the axis according to the presence of four principles outlined by Lockwood: community participation, community control, legal and/or feeling of ownership and cost sharing (cost recovery of recurrent costs) (Lockwood 2004). The highest degree was found in Katakwi and Amuria, where water source committees still work on a voluntary basis and the private sector, represented by the handpump mechanic, is only called on for periodic maintenance. Namasale is placed on the right side because of its pronounced ownership feeling and amount of voluntary work carried out by committee members. Kabango has more community participation and control because the water board is democratically elected, compared to the swTws project, where the water board is appointed by the sub-county. By maintaining some form for community oversight through water committees and water boards, the case studies still seem to benefit from some of the propagated positive effects of community management such as equity, community empowerment and ownership feeling.

The same continuum can be drawn for the degree of private sector involvement. Here, the case studies are placed according to three conditions: the amount of responsibility for management, operation and maintenance taken over by the private sector, the presence of a formal agreement and the extent to which board/committee members are paid an allowance. The result looks as follows:

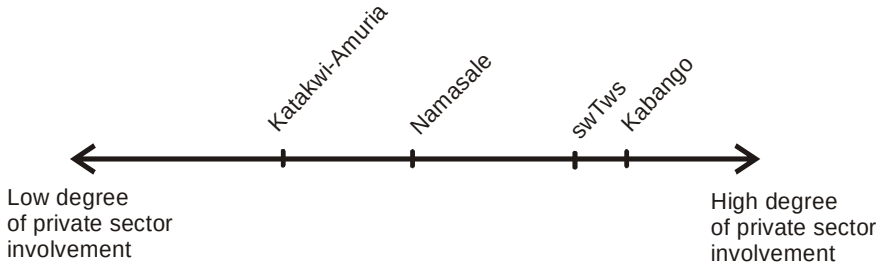

Figure 2 – Degree of private sector involvement

In Kabango, even the financial management and the reporting to the district is carried out by the private operator, whereas in some of the projects visited under the swTws, this was still done by the water board. Namasale and Katakwi-Amuria are placed further on the left because of the absence of a formal contract, and more responsibility on voluntarily working committee members and caretakers.

All case studies get clear benefits from involving the private sector in one way or another. When maintenance is carried out by a trained technician, its quality improves. This is especially true for the handpump mechanics, that acquire valuable experience by servicing a large number of handpumps. In the case of Kabango, the village also benefits from expertise from outside. Since the project has to be financially sustainable, the financial management is more efficient and several communities use innovative ways to reduce spending to the minimum such using cheaper electricity during the night or using private contacts to send spares from Kampala instead of travelling there themselves. The main benefit, however, is the motivation to carry out operation and maintenance and manage the project. Experience has shown that any technology can be sustainable if the owner only has enough motivation to keep it going. A car is a good example. Paying a private operator and also committee members for their work creates this element of motivation that so often is found lacking in community managed projects, since it has to be based on pure mobilisation of duty feelings towards the community. As communities venture into the era of the cash economy, individualism, mass-communication and trade, the spirit of voluntarism diminishes. The creation of employment and payment seems to be the quickest and simplest way to keep up this motivation; a crucial precondition to sustainability.

Private sector involvement and economic development

After an analysis of the case studies and their degree of private sector involvement, the correlation with economic development is striking. In communities where there was little cash in circulation and few commercial activities such as in Katakwi and Amuria, a higher degree of community management was found. In villages that have a booming trade and commercial activities and even a large population with wage employment such as Kabango, a higher amount of tasks is confined to the private operator and the relationship is more formal. The relationship between economic development and degree of private sector involvement can be simplified by the graph below:

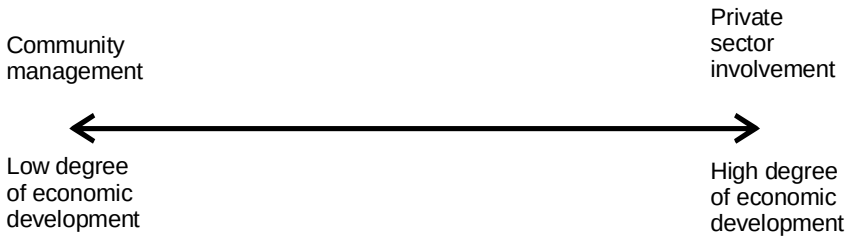

Figure 3 – From community management to private sector involvement

It has to be noted that this relationship is only a general trend, and that in addition to economic development other factors such as socio-political characteristics of the community, remoteness, the cost of water, political leadership, type of support mechanism and the implementation approach also will affect the degree of private sector involvement and whether it is a success. However, it is an important relationship to recognise, especially for the future of rural water projects. Economic development is only going in one direction, and more and more rural communities will come to the point where private sector involvement is reasonable. It makes sense to start preparing these communities with a low degree of private sector involvement first, to ensure a smooth transition. In addition, involving elements of community management seem to remedy to some of the constraints posed on the private sector by the rural setting mentioned above.

In addition, it has to be noticed that community management and private sector involvement are not only different approaches, but they also have different outputs. Community management builds social capital and capacity in the community, whereas private sector involvement focuses on efficient service delivery. It can be argued that at different stages of economic development communities have different needs, and the management model or combination of management models has to be chosen based on the attempt to satisfy these needs. The key message is that while it is dangerous to continue to assume that community management will lead to sustainable water supplies, it is also dangerous to jump on private sector involvement as the new panacea and implement it in communities that are not ready for it.

Support mechanisms

Equally important as choosing the right management model is the acknowledgement of the need for an efficient and sustainable support mechanism. The case studies clearly show that the support mechanism is crucial for the long term functionality of the project, and this is true for any management model. In other words, without a support mechanism, no management model will work. It is time to recognise the fact that rural communities cannot bear all operation and maintenance costs for their water supplies, and after all, why should they? In developed countries, no rural communities bear the full cost of operation, maintenance and large repairs through their water tariffs. Why are we imposing this on rural communities in developing countries, that are even poorer and where the services are often even more expensive compared to their income? This has been the most serious consequence of two decades of community management; it managed to convince donors and governments that it was possible to make an intervention in a community, build capacity and social capital and then the project would run by itself. This is of course an attractive approach for donors that like short term projects and governments that have no resources. It is now our biggest challenge to change this perception.

The case studies made it possible to analyse the different types of support mechanisms that exist in Uganda at the moment, and their performance. In Katakwi-Amuria, the associations are independent organisations based on membership fees, but closely linked to the local governments and also supported by the districts. This enables the local governments to have

a unified approach throughout the districts, but at the moment they still rely on support from WaterAid. Namasale does not have any support mechanism at all, and the main problem of the project is technical expertise. Funds are normally available for spares because of the support from the sub-county, but the technicians do get any technical support from the district and are often overwhelmed by technical problems.

The most elaborate support mechanism is the swTws project's Umbrella. The South Western Umbrella currently supports more than 40 small piped water schemes in 10 districts. It has a secretariat of highly competent engineers that move around and help private operators with advice and maintenance. If they find irregularities in the monthly reports, they move out to the communities to verify. The Umbrella was initially created with the aim to be self-supporting through membership fees, but still relies heavily on donor funding. This raises questions about what will happen when the donors pull out, and who will take over the support once it is gone. At the same time, the Umbrella concept has created great enthusiasm in Uganda. The South Western Umbrella has recently opened up its membership for all water projects in the area, not only the ones constructed by the same donors, and the Ugandan government has set up two additional Umbrellas in other regions in an attempt to replicate the success. There is however little clarity about how these organisations are to be sustained, and what is their role in relation to the districts. The Umbrella concept emerged because of a lack of ability in the districts to take on their formal responsibility of support, and reduced their workload but also their resources and possibility to acquire capacity and experience.

Some districts are able to effectively support rural water projects, and this was shown by the last case, Kabango. With a little start-up support and training, the district is able to perform most of the most important tasks of a support mechanism: technical advice, training, quality control and financial follow up. Even if only 8% of the conditional grants is earmarked operation and maintenance, this district seems to manage although questions can be asked about what happens when the number of water projects in the district increases.

The different support mechanisms show that in many cases it is not money for spares or repairs that is needed by the communities, but rather a continuous and regular follow up with routines for reporting, auditing, quality control and training. In many cases the communities only need technical advice or an encouragement to get the work done. This "moral" support includes advice to the water committee/board when they face conflicts in the communities, or when they have financial problems. This study argues that whereas community management needs a high amount of presence in the community to function, private sector involvement in rural water supplies can enable more streamlined support that is less costly and elaborate. Community management needs to sustain motivation through mobilisation, but this element can be replaced by payment if the private sector is involved. It is therefore possible to focus less on mobilisation but more on advice on financial, managerial and technical issues. This is illustrated by the Umbrella, where all schemes include a private operator, and that does almost no mobilisation at all.

The management model

Through the discussion above, it is now possible to identify some of the most important actors in the management of a rural water supply, and the relationships between them. This is illustrated by the figure below:

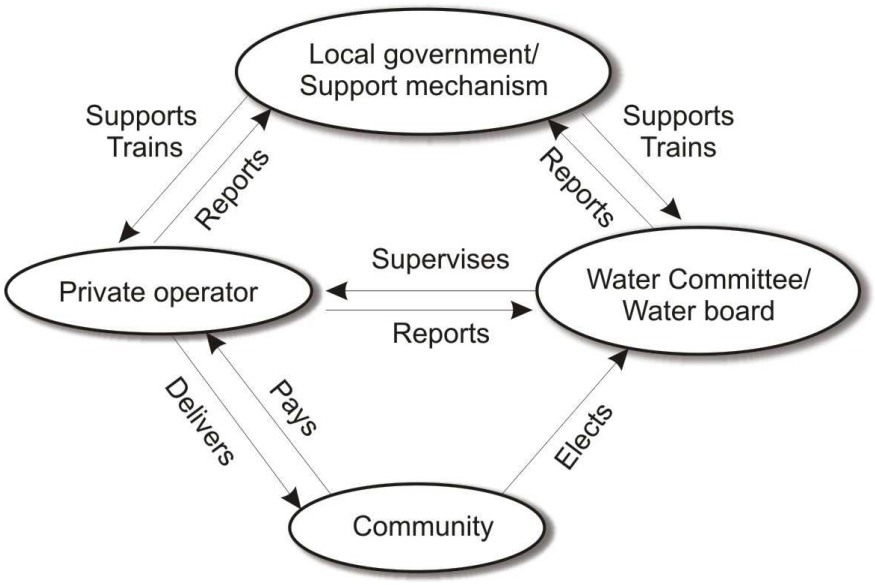

Figure 4 – Proposed management model for rural water supplies

The figure underlines the need for a support mechanism, either through local government structures or through an independent support mechanism that is sustainable and has a working relationship with the authorities. Support can also be provided by the private sector or through subsidies such as the output-based aid model, although these options have been less explored in practice for rural areas. The division of tasks between the water committee and the private operator will depend on local conditions and on the economic development as described above. Ideally, the community elects the water committee, but appointed boards also seem to work and often have a better relationship to the local government.

Conclusions

From the case studies and the discussion, several conclusions can be drawn:

1. As rural communities move upwards on the ladder of development, the spirit of voluntarism diminishes. This calls for new approaches that do not assume a high amount of voluntary work
2. Private sector involvement can be combined with traditional community management structures and create benefits from both approaches in the community
3. The degree of private sector involvement can be linked to the degree of economic development in the community, although other factors also play a role
4. It is important to adapt the nature of private sector involvement to local conditions and needs of the community

5. In poorer communities, including elements and methods of the community management approach can make the operation and maintenance affordable and remedy to some of the constraints set by the rural setting
6. Although many projects have subsequently adopted private sector involvement, ideally the approach should be considered already in the planning and implementation stages of the project
7. It has to be recognised that communities cannot bear the full responsibility for operation and maintenance in the long term and that sufficient resources have to be allocated to provide effective support mechanisms
8. Private sector involvement can reduce the cost of support mechanisms since the element of motivation is provided by payment.
9. Effective and continuous support is crucial to sustainability, and governments should have a clear plan of how to organise and finance this support. Only in this way, the constraints of the rural setting can be overcome and the private sector can play an effective role

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