

Private Sector Participation in Low Cost Water Well Drilling

Knowledge and Research (KAR) Project R7126

**Histories of Pounder Wells and Hand-Augered Wells in Mpigi,
Mukono and Jinja Districts**

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It is our hope that the work which we have started in this short project can continue and build on the foundation provided by the many partners and stakeholders involved.

2 BACKGROUND

This report contributes to the findings, implications, and future plans of a project, initiated by Cranfield University (Silsoe, UK) entitled “Private Sector Participation in Low Cost Water Well Drilling”. The project was funded by DFID from July 1998 to June 2001, with additional funding partners (Government of Uganda, DANIDA, SIDA, UNICEF, Water Aid, and an anonymous donor) joining at various stages throughout this three-year period.

The three-year Project had two overall aims:

- to develop, and transfer to the private sector, technology suitable for affordable shallow well construction
- to research the process of technology transfer and the conditions necessary for its success, in the context of rural water source construction

The first aim of the project was addressed through three main objectives or outputs:

- ◆ the design, field testing, and evaluation of a new human-powered drilling rig (the “Pounder rig”)
- ◆ the uptake of the technology by a small number of contractors, and their use of the rig in commercial contracts
- ◆ the establishment of a sustainable means by which the rig and subsequent spare parts will be made available in country

The research aspect of the project used the technology transfer and uptake process as a gateway to action research. The process of developing the technology and introducing it into the private sector, and the concurrent investigation and learning process, were intertwined in such a way that the project informed the research, and the research informed the project. Both benefited.

The overall research question was:

“what enabling conditions and external actions are necessary to stimulate and strengthen effective rural water supply service delivery by the private sector?”

3 Introduction

The purpose of this report is to gather together narrative histories of community mobilisation in practice, the state of community ownership and the ability to maintain hand pump sources. It also provides background information on the construction, roles played by various stakeholders, community organisation issues and the operation and management (O & M) of the wells.

The report includes guiding questions, histories of pounder and non-pounder wells in Mpigi, Mukono and Jinja Districts.

3.1 Before construction

Community level

- Who made request for a new water source (households, community (LC I), Parish (LC II), Sub-county, political leader, elder, others (LC3))?
- Reasons behind the request (safe water, accidents, modern technology, long distances to water sources)
- Existing sources of water (ponds, rivers, rainwater harvesting, vended water)?
- Did the community make any contributions?
- Forms of community contributions (in-kind, cash, amount)?
- If cash, what was the mode of collection (household contribution, indirectly through taxation)?
- Community organization (formation of Water User Groups (WUGs), and Water and Sanitation Committees (WSCs))

LC I and II levels

- Role played by LCs (safe water awareness mobilization, collection of community contribution, making request to higher levels, financial contributions from LC funds)?

LC III level

- Role played by LC III (safe water awareness mobilization, including wells in the sub-county water development plan, making request to higher levels, making contributions towards community contribution fund from Sub-county funds, payment of staff allowances)?

District level

- Role played by the district (Developing the work plans, availing funds, availing staff and paying allowances, coordinating with the LCDP)

Project level

- Role of the LCDP (MoU with district and DWD)

3.2 During construction

Community level

- Selection of drilling sites
- Forms of community participation during construction (provision of labour, provision of food, cash contribution to crew welfare, provision of accommodation, caring for equipment).

LCs I & II levels

- Role played during construction (siting, acquisition of land, caring for the drilling crew, financial and other forms of contributions to crew upkeep)

Sub-county level

- Role played during construction (siting, acquisition of land, allowances for the sub-county support staff)

The drilling Crew

- Factors considered when siting wells
- Problems experienced and how they were overcome

- Any significant/unusual happening (positive or negative)
- Assistance obtained from community, LCs, district, LCDP

District level

- Role played by the district during construction (provision of the drilling crew, payment of allowances, follow-up support, quality assurance)

LCDP level

- Role played by the project during construction (technical support, siting, provision of equipment, training of crew, payment of crew allowances, crew welfare)

3.3 After construction:

Specific for each well:

Community level

- Attitude towards the new water source (ownership).
- Establishment of O&M system (selection of care taker, WSCs, WUGs).
- If no system, why not (problems)? What are the possible solutions?
- Establishment of O & M fund and its management
- Quality of water (acceptability)
- Quantity of water (different times of the day and different seasons)
- Pump performance (during peak hours)
- Breakdowns and repairs (breakdown time)
- Number of households in the WUG
- Use of traditional source
- Future plans

LCs I & II levels

- Attitude towards the new water source (ownership).
- Establishment of O&M system
- Plans for the future

For all wells

Sub-county level (LC III)

- Maintenance plans for wells
- Replacement of major components.
- Training of the WSCs
- Mobilisation for sanitation activities
- Monitoring activities
- Plans for the future

District level

- Maintenance plans for wells
- Replacement of major components
- Training of the WSCs
- Mobilisation for sanitation activities
- Monitoring activities
- Plans for the future

3.4 Respondents

Community level

- User community (WUGs)
- The WSC members
- Caretaker

LC I & 2

- Chairpersons of the LC Committees
- Secretaries for health/welfare services
- Any other active members on the committees

Sub-county level (LC III)

- The Chairperson LC III
- Secretaries for health/welfare services
- Any other active members on the committee
- Health Assistant

District level

- The Chief Administrative Officer
- District Water Officer
- District Health Inspector
- Community Development Officer
- The drilling crew

LCDP level

- Team leader
- Drilling Consultant

4 History of Pounder wells – Mpigi District

4.1 Summary

The history of the Pounder wells in Kauku LC I, Katabi sub-county is a typical example of a supply driven implementation of a project and the problems that may accrue therefrom. With all the good intentions, the area Chairperson had done all there was to do to ensure that new safe water sources are developed in his area without involving either the community or the other community leaders. To others the Chairperson was fulfilling his election campaign pledges. They only waited for the finished products without participating in the planning and other decision making processes. On the other hand, the LCDP and the district were driven by getting the equipment tested and did not pay much attention on the community organisation elements. Having completed well construction, it is now an uphill task to get the community to develop a sense of ownership and institute a maintenance system for the wells.

With continued interest in the wells by all parts involved, it has become apparent that as matter of priority, the community must be mobilised towards ownership and development of a system to operate and maintain the wells.

A number of lessons may be drawn from the Kauku Pounder Well.

- Involvement of users throughout the project life is sine quo non for the development of a sense of ownership and the subsequent maintenance of developed facilities.
- Payment of Community contribution by local authorities is not the best measure for demand for services.
- Demand made by community leaders does not necessarily reflect a community demand.
- Even when the project is a research project (testing technology), the other community related aspects thereto are of paramount importance if communities are the end beneficiaries.

4.2 Introduction

Through a partnership between Low Cost Drilling Project (LCDP) of Cranfield University, the Government of Uganda through the Directorate of Water Development (DWD) and Mpigi district, five Pounder Wells were constructed in Kauku and Bukandekande villages of Katabi Sub-County, Mpigi district. The wells are the only ones of the kind in Uganda distinguished by two major characteristics. One, they have been drilled with the Pounder Rig, a recent drilling technology that applies sludging method, and two, they have direct installed pumps where the would-be casing is also the raising main. The LCDP is monitoring the performance of the wells including the water quality. As part of the monitoring exercise, history of the wells is being documented to give a background to the wells especially roles played by various stakeholders and further examined the existing plans for operating and maintaining the wells. This chapter is a result of informal interviews with a number of key informants (Annex 1), focus group discussions with community members and observations made at the Pounder Wells.

4.3 Background to the Pounder Wells construction in Kauku LC I

The community in Kauku and surrounding villages had no access to safe water. There existed one shallow well to serve the whole village and the growth centre (township).

Water for most households was being collected from unprotected water holes or ponds (traditional sources) bordering the swamp that runs parallel to the village. It was clear to most leaders at the time that the people of Kauku wanted new safe water sources, a demand that was latent. Lack of access to safe water was a situation that the community lived with and had come to accept. The community had taken no specific steps towards making demands for development of new water sources. The development of the Pounder Wells can be traced back to election campaigns for local councils. The elected Chairperson to LC III had promised, among others, to develop new water sources in Kauku during his campaign for the office of the LC III Chairperson, Katabi sub-county. The Chairperson to LC III also happened to be both the Chairperson LC I (Kauku) and LC II a positions that gave him opportunities to effect programmes that he had hoped to effect during his term of office. One such programme was development of water sources in his home village, Kauku.

Elsewhere in Mpigi district, the district and LCDP were carrying out tests on the Pounder Rig. A number of holes had successfully been drilled. The project sought to further test the equipment on hard material. Information at the district indicated the presence of laterite in Kauku village, Katabi sub-county that the drilling crew had earlier failed to penetrate using the hand auger equipment. A decision was thus taken to further test the Pounder Rig in Kauku village.

Thus on 15th September, 1999, drilling started at what is now known as Kajubi well, with the objective of testing whether the rig could drill through laterite. Two days latter, it was excitement for all concerned; the Pounder Rig could drill through laterite. This was a great success on the part of testing the equipment. As an incentive to the project and as part of publicity for the Pounder Rig a decision was taken to develop the well into a community water source. After the first well, the Chairperson to Kauku village saw the opportunity for developing more wells in his area. The drilling crew and the rig were already in the village and eager to drill more wells as a way of further testing the equipment. What was required was the payment of a community contribution of Sh. 150,000 for each shallow well as demanded by the district to for the project to continue drilling wells in the area. Thus, the stage was set for drilling more wells in Kauku.

Using the 25% tax revenue from LC III, the Chairperson LC I was able to pay a total of Sh. 600,000 for construction of four wells. It is important to note that the decision to pay to the district was not taken at LC I Council meeting but rather the Chairman's ideas and vision of providing safe water to his electorate. The rest of the LC I Council was not aware of the developments taking place. There was no element of organized community participation up to the time when the drilling crew left the area. The project did not have time to wait for community organization. The crew were already on site and had to keep working. Events were happening so fast that the LC I Secretary for Environment, who is also charged with matters related to water and sanitation in the village was not aware of the presence of the rig and the drilling crew until the third Pounder Well was being drilled. To the rest of the council and the community, the Chairperson was fulfilling his pledges and promises made during the campaign period.

The Kauku experience could be a typical supply-driven project. The community contribution as demanded by the district had been paid without knowledge of the community; the drilling crew had been accommodated by the Chairperson; food for the crew had been paid for by the Chairperson; community had not participated in selection of sites; local materials for construction (sand and aggregate) had been brought in by

the truck from the sub-county and community had not provided any form of labour assistance during construction.

4.4 Wells constructed.

s/n	Well number	Name (nickname)	Date drilled
1.	PW 2/6	Kajubi (fence)	15 – 17 September, 1999
2.	PW 2/7	Valley Zone (captain)	28 – 30 September, 1999
3.	PW 2/8	Ndaula (pond)	30 September, 1999
4.	PW 2/9	Zzika (steep slope)	1 October, 1999
5.	PW 2/11	Bukandekande (huts)	8 October, 1999

All wells had had pumps installed by mid November, 1999.

4.5 Roles played by various stakeholders during construction.

The Pounder Wells have a number of stakeholders, these include the community who are end users, the Local Councils, I, II and III, the district and the LCDP. Participation (or lack of) of each of these during the construction period is highlighted here below.

The Community, LCs I and II.

There was total lack of community participation, either at individual household level, water user group level or local council level. All decisions and action taken by the Chairperson were without consultation with either council or community members although funds were public funds. All however, was being done in good faith for the community.

As the political head of the village, the Chairperson played a number of roles.

- Presenting request to the district for the construction of wells.
- Payment of the community contribution of Sh. 15,000 per well to a total of Sh. 600,000 from the local council's 25% remitted from the sub-county.
- Payment of cost of construction materials from LC I funds
- Provision of food and accommodation to the crew. Food was paid for from Local Council funds.
- Assisting crew in the siting of the wells. One of the major considerations during siting being the presence of an existing water hole, water being necessary to operate the Pounder Rig. At one site (valley zone), the landowner did not want a well drilled in his plot of land. The Chairperson was able to convince the landowner to allow drilling and installation of the pump for a community water supply.
- Monitoring the drilling programme and providing support whenever required.

The Sub-County (LC III)

The sub-county participated by provision of personnel, the Health Assistant who worked closely with the drilling crew. Through the influence of the Chairperson, the sub-county also provided a pickup truck that transported construction materials (sand and aggregate) to sites.

The district

Through the district Water and Environmental Sanitation (WES) programme, the district played the following roles:

- Provision of the drilling crew.
- Supply of pump, casing and cement

- Provision of a full-time pickup and fuel.
- Supervision of construction.

The project

The LCDP provided continuous support to the drilling and installation of the pumps.

- Provision of the drilling equipment
- Provision of technical training to the crew in the use and the Pounder equipment and direct installation of the pump.
- Participate in siting of wells.
- Sponsoring the first well (Kajubi)
- Provision of technical support during drilling and installation of hand pumps.
- Financial support in paying field allowances to the crew and occasional supply of fuel.
- Support, supervision and continued encouragement of the crew.
- Liaison with area Chairman and Health Assistant on issues related to the drilling activities.

Operation and maintenance of the wells

Operation and maintenance (O&M) does not seem to have been given due attention at the inception of the project. Whereas the LC I Chairperson's objective was developing safe water sources to the community, to the project, the focus was on drilling through the laterite. The drive was more on testing the equipment on hard rock and less on developing community water supplies. The drilling was so fast such that there was no time to organise communities. Of the five wells drilled in the area, only one (Zzika: *steep slope*) had a water source committee at the time of pump installation. None of the sources has a plan for O & M. At the time of collecting information for this report, committees had not yet been elected. Follow-up efforts to elect water source committees by the Health Assistant has not been successful, the major reason being that the by-elections for the LC I Chairperson had not taken place (to leave the Chairman LC III with only one position of responsibility). With a new chairperson elected and other vacant positions on the LC I Council filled, it is anticipate that water source committees will be elected soon.

Without a community based maintenance system, there are visible problems at the wells: Three of the well pumps, Kajubi (Fence), Valley zone (captain) and Ndaula (big pond) have their handles broken. Further more at Kajubi well, water is escaping at the tank joint, there is cracked cement to the channel and the pedestal at the base of the pump is exposed. Of the five wells, two (Valley Zone and Ndaula), have nuts and bolts missing. Pump surroundings are often dirty. Luckily, there has not been any major breakdown of the pumps. Both the sub-county and the district are aware of their responsibilities of mobilising the community towards ownership and developing an O & M plan for the wells. The community has showed willingness to maintain the wells, however, they feel the local council should take the initiative to elect committees to take up the maintenance responsibilities. Before that happens, they feel they have no right to tamper with the hand pumps.

4.6 Community attitude towards the wells.

The community is very appreciative of the wells. They are happy that now they have access to safe water. The water test and colour is acceptable. The water ponds have been abandoned although there is a feeling that the ponds should be maintained as a backup just in case the pumps breakdown. To this end, the community has invested Sh. 50,000 to hire labour to clean the ponds (traditional sources).

4.7 Way forward

All stakeholders indicate that the way forward is to develop a community based maintenance system for the wells. The Sub-County Health Assistant has given an ultimatum for election of the source committees. The Health Assistant and the District plan to carry out training of the committees once they have been selected. Part of the training would involve awareness on various options to generate funds for O & M activities. Furthermore, the LCDP is continuing to monitor the water quality and take interest in the progress of the maintenance activities.

4.8 Lessons learnt

A number of lessons may be drawn from the Kauku Pounder Well.

- Involvement of users throughout the project life is sine quo for the development of a sense of ownership and the subsequent maintenance of developed facilities. The community in Kauku should have participated in the project during the planning stages and the making of major decisions and in the process own the project.
- Payment of Community contribution by local authorities is not the best measure for demand for services. The district made the assumption that it was community demand when in effect it was a single leader's demand. Demands made by community leaders do not necessary reflect a community demand.
- Even when the project is a research project (testing technology), the other community related aspects thereto are of paramount importance if communities are the end beneficiaries.

4.9 Annex 5.1 Study participants

1. Persons interviewed

Byantalo	District Water Officer, Mpigi District
Daniel Kakumba	Health Assistant, Katabi Sub-county
Kibanya	Counsellor, LC III
Samali Sselubiri	Secretary for Finance. Kauku LC I
Nakamya Polly	Secretary for Production and Environment, Kauku LC I
Salongo Kalyesubula	Chairperson, Zzika water source Committee.
James Kamanya	Drilling crew
Kigaanira Godfrey	Drilling crew
Kerstin Darnet	Project Leader

Focus Group Discussions attendance

Well number	Name (nickname) of Pounder Well	Attendance		
		Female	Male	Total
PW 2/6	Kajubi (fence)	4	2	6
PW 2/7	Valley Zone (captain)	5	2	7
PW 2/8	Ndaula (pond)	7	1	8
PW 2/11	Bukandekande (huts)	4	1	5
Total		20	6	26

Note. 1. Key informants not interviewed include the Chairman LC III Katabi Sub-county and the District Health Inspector.

2. No focus group discussion was held for Zzika (steep slope).

5 History of Non-Pounder Wells – Mpigi District.

5.1 Introduction

For purposes of comparing data between the Pounder and non-Pounder Wells, the project identified five Non-Pounder Wells to be monitored alongside the Pounder Wells. All the five wells are shallow hand augered wells. All are located in Katabi Sub-county. Like the Pounder Wells, they boarder the swamp that forms part of Lake Victoria basin. The basic differences between the wells are the methods of drilling and installation of the pumps. The Pounder Well having been drilled with the Pounder Rig with direct installed pumps while the Non-Pounder Wells were hand augered with the pumps installed with casing. The table below identifies the Non-Pounder Wells by location, number and date of construction

The Non-Pounder Well

Sub-county	S/N	Parish (LC II)	Village (LC I)	Name of shallow well	Shallow/Tube Well Number	Date of Constructio n
Katabi	1	Kabale B	Kanisa Zone	Kanisa Zone (Big tree)	TW/No. 2/109	Feb-98
	2	Kabale B	Kanisa Zone	Kanisa Zone (Sandpit)	TW/No. 2/108	Feb-98
	3	Kabale A	Tadeo	Double	TW/No. 2/110	Jan-98
	4	Kauku	Kauku	Mugezi (Bananas)	TW/No. 2/116	Mar-98
	5	Kauku	Kauku	Night	TW/No. 2/16	1998

Just as for the Pounder Wells, LCDP is documenting the history of the Non-Pounder Wells as part of the monitoring exercise.

5.2 Background to the wells

As of the second half of the 90s, Mpigi district was implementing the Water and Environmental Sanitation (WES) Programme, supported by the Directorate of Water Development (DWD) and UNICEF. The project involved construction of new water sources and sanitation facilities for both communities and institutions (schools).

Before the initiation of the WES Programme in Mpigi district in 1994, sanitation and safe water coverage were estimated at 23% and 8% respectively. After three years of WES programme implementation and assistance from AVIS and other NGOs, Sanitation and safe water coverage rose to approximately 42% and 30% respectively (Mpigi District Council, WES Programme Progress Report, 1994-1997).

The WES programme was being managed by various committees at district, sub-county and community levels and implemented on three basic principles:

- I. Demand – driven principle where beneficiaries initiated development by applying for and contributing towards WES activities in their areas.
- II. Community – based principle where communities were involved in planning, budgeting, construction and maintenance of the facilities.

III. The decentralization principle where sub-counties and their committees had mandate to plan and manage WES activities in the sub-county. The decentralization principle was reinforced by the enactment of the Local Governments Act (1997) that established sub-counties as local authorities.

Like other sub-counties, Katabi sub-county participated in the programme. Katabi sub-county enjoyed a good road network with the Entebbe-Kampala main road running through the sub-county. Being a neighbouring sub-county to Entebbe Municipal Council, Katabi enjoyed a relatively better infrastructure than other rural sub-counties of the district.

Katabi was among the very active sub-counties in the district in the implementation of the WES Project. By end of June 1997, safe water coverage in Katabi was slightly above 33% (population of 37,991). Latrine coverage stood at 64% (5,758 households). Out of the 33 sub-counties within Mpigi district, it ranked among the first five rural sub-counties with relatively good safe water coverage while it had the highest latrine coverage in the entire district. The five wells being monitored were constructed during 1998.

As a strategy for creating demand for safe water in the sub-county, Katabi sub-county made provisions for safe water and sanitation improvement awareness campaigns in the sub-county. The LCs and the area Health Assistance (HA) held various meetings at LC I level educating communities on safe water and sanitation and creating awareness about opportunities for improving coverage in their areas. The principles of the WES Programme and the roles and responsibilities of various stakeholders would be explained. These meetings culminated in communities making requests for construction of new water sources in their area. The requests had to be in writing through the LC system addressed to the Sub-county Council. The Council would then include the requests in the sub-county WES annual workplan and budget which were sent to the district office. Requests would be accompanied by payment of Sh. 150,000 (for each shallow wells) as contribution towards the capital cost of the well. Following the receipt of the contribution from the sub-county, the district made plans to send the drilling crew to effect the drilling of the well and installation of the pump. Wells were handed to the community after completion.

Although the terminology used to refer to the contribution of Sh. 150,000 per well was (and still remain) “community contribution”, this contribution was paid by the sub-county out of tax collections and not by individual household/community members. The terminology “community contribution” in this respect is misleading. A more appropriate term would be “sub-county contribution” in line with “district contribution” that refers to contribution made by the district towards the program budget. “Community contribution” to date is still being used to refer to contributions made by sub-counties (as in the Memorandum of Understanding between LCDP and the districts).

5.3 Roles played by various stakeholders during construction.

Roles and responsibilities played by various stakeholders are as follows

The Community

- Attending sensitisation meetings.
- Making requests for construction of new water sources.
- Participating in the siting of the wells.
- Donation of land.

- Carrying drilling equipment to site and safe storage of equipment
- Providing of manpower to operate the hand auger.
- Feeding the crew.
- Providing local materials (fine and coarse aggregate) for construction activities.

The LC I and II

- Mobilising communities for various activities that include:
 - ⇒ Attending sensitisation/awareness meetings.
 - ⇒ Operating the hand auger.
 - ⇒ Provision of food to the drilling crew.
 - ⇒ Provision of local materials.
- Forwarding applications to the LC III council.
- Participating in siting.
- Providing accommodation to the crew.

The LC III

- Financing the sensitisation exercise.
- Receiving applications from LC Is.
- Developing a sub-county action plan together with budget estimates.
- Submitting action plans to district for approval.
- Paying of the community contribution.
- Acting as link between district and communities.
- Paying sub-county staff allowances.
- Providing follow-up support.

The district

- Making available the drilling crew and drilling equipment.
- Supplying of transport and other equipment for construction works.
- Supplying of pumps, and other non-locally available materials.
- Paying crew allowances.
- Supervising of construction.

5.4 Operation and maintenance of the wells

(also see Annex 8.1 “Existing maintenance system for wells in Katabi sub-county”)

There does not seem to be any established water source committee at the water-users level. Though there are Caretakers, the structure of a typical water source committee is missing on all the wells. Caretakers are not facilitated to carry out preventive maintenance of the pumps. Any breakdown on the pump is reported to the Production and Environment Secretary on LC I who relayed the message to the sub-county. The sub-county informs the district about the reported breakdown. The district then sends a member of the drilling crew to effect repairs. Over the years the area Health Assistant (Dan) has acquired some skill in maintenance/repair work and often fills the gap. The trained Pump Mechanics for Katabi sub-county (two in number) have not been put on the sub-county payroll and as such are not active.

Non of the wells had an O&M account. Beneficiaries contributed for repairs only after the pump had broken down.

Community expressed concern with the quality of handles on the pumps. Two of the wells (Night and Bananas) were found with broken handles. The rest had had the broken handles repaired. Communities attributed the breaking of the handles to two factors. The first being the manufacturer’s omission to make quality handles while the

second is over use of the pumps. It was estimated that Night hand pump (TW/No. 2/16) at Kauku served over 100 households. Because of high demand on the wells, the ponds (traditional sources) were used as alternative water sources during peak hours. To avoid the use of the unsafe ponds, the community in Tadeo village Kabale A parish requested for another water source which was drilled close to the existing one. It is estimated that over 150 households collect their water from the two pumps that stand a couple of meters apart.

5.5 Community attitude towards the wells

Communities have a sense of ownership of the wells. There is willingness to contribute to meet repair expenses. Both the quality and quantity of the water is acceptable though Mugezi well (Bananas) was said to have a metallic taste especially when collected during morning hours (Iron reading: June 1.13, July 1.03; has highest iron content of all wells being monitored). Communities now believe they have access to safe water.

5.6 Future plans

To the user community, plans for the future involve continued maintenance of the well and hopefully, increasing their safe water coverage by the construction of more water sources. To the HA plans include streamlining the O&M system which would include training of the water source committees and activating the services of the Pump Mechanics. The HA was of the view that those who allocate funds (at sub-county level) did not seem to think that maintenance of developed water sources was a priority area. The strategy was continued lobbying for the district to put pressure on the sub-county for the lease of funds for training water source committees and paying wages to the Pump Mechanic.

5.7 Annex 6.1: Existing maintenance system for wells (Non-Pounder) in Katabi sub-county:

The maintenance system for hand pumps (what ought to be) for Mpigi district

In Mpigi district, sub-counties are charged with the responsibilities of maintenance of hand pumps. The following are the expectations related to maintenance of water sources.

- Each sub-county should have a trained pump mechanism, probable two in number depending on the number of hand pumps in the sub-county. The mechanics will have been selected by the LC III Council, and their training sponsored by the council. It is expected that the Pump Mechanic is a regular employee of the council drawing a monthly earning. Mechanics may charge a nominal fee for repair work done. Each pump mechanic should be equipped with a toolbox and facilitated with transport (bicycle). Pump mechanics are expected to regularly visit the pumps and effect preventive maintenance. They also repair breakdowns.
- At community level, each water source should have a caretaker and a water source committee. The Caretaker is a member of the committee. Committee members receive training in their roles and responsibilities that include, among others, improving sanitation among the user community. The committee is charged with general management of the pump and to ensure that the pump is operational and that breakdown time is kept to a minimum.
- Breakdowns are reported to the caretaker who would inform the pump mechanic through the quickest means possible.
- Communities are expected to finance repair expenses. To this end, it is expected that each water source committee opens an account for O&M to which the water users contribute. The amount and mode of contribution is left to the discretion of the committee.
- Pump Mechanics are expected to obtain spares from retail shops and from Victoria pumps.
- Any complicated repairs are referred to the district. The district often falls back to the drilling crew to effect those repairs.

The reality in Katabi Sub-county

- The sub-county selected and sponsored two pump mechanics for a three-week training programme. The sub-county however does not pay them any wages or allowances. Effort by the pump mechanics to work and be paid by communities was not been successful as communities could not understand why someone had to open up their pump when the pump seemed to work well. It was even more difficult to replace a worn out part. The end result was two fold
- i The pump mechanics could not survive on voluntary work. They opted out of the system to earn a living elsewhere. None of the two mechanics are now active.

- ii There is total lack of preventive maintenance. The caretakers have not been equipped with the basic tools to at least grease the chain or tighten nuts.
- The toolbox is currently being kept with the Health Assistant who, with limited experience, does his best to keep pumps working.
- The reporter is of the view that although all water sources have caretakers, most do not have water source committees. It is estimate that 60%-70% of the committees (where they exist) have been trained. The last training having been done more than two years ago. The Health Assistant is of the view the LC III Council does not consider training of committees a priority.
- Pump breakdowns are reported to LC I, (usually to the Secretary for Environment and Social Services) who relays the message to the sub-county. At the sub-county, the Health Assistant takes up the matter by visiting the hand pump and assessing the technicality of the breakdown. The Health Assistant would carry out the repairs if the problem is within his abilities to rectify or will inform the district of the breakdown and requests that the district sends a mechanic to carry out repairs. The district sends a member of the drilling crew to carry out the repairs.
- Communities finance repair works. There are no accounts for maintaining water sources operated by user communities. Communities contribute only when there is a breakdown. There may be contribution from LC I when substantial amounts are involved. The pump mechanic would inform the community how much money would be needed to buy spares. The community is then given time to raise the required amounts. This may take a few days or weeks depending on the demand on the community, the ability and willingness to pay.

Implications for the project

It is clear that like in many other sub-counties, there are problems with the maintenance system of the hand pumps. Of particular concern, is lack of training for the water source committees and lack of preventive maintenance. The project may consider funding the training of water source committees for the existing 5 Pounder Wells and ensure the training of the committees for future wells. The project could further put pressure on both the sub-county and the district to ensure that the working conditions of the pump mechanics are formalised.

5.8 Annex 6.2. Study participants

Persons interviewed

Kato Ssemugera	WES Coordinator, Mpigi District
Daniel Kakumba	Health Assistant, Katabi Sub-county
Kibanya	Counsellor, LC III
Nakamya Polly	Secretary for Production and Environment Kauku LC 1
Night Betty Nakiwala	Caretaker - Night Hand pump: Kauku
Kiganira Godfrey	Drilling crew
Vicent Sekamate	Drilling Crew
Wasswa Johnie	Drilling Crew

Focus group discussions attendance

Well number	Name (nickname) of Pounder Well	Attendance		
		Female	Male	Total
TW/No. 2/109	Kanisa Zone (Big tree)	3	2	5
TW/No. 2/108	Kanisa Zone (Sandpit)	6	3	9
TW/No. 2/110	Double	3	5	8
TW/No. 2/116	Mugezi (Bananas)	2	2	4
TW/No. 2/16	Night	4	2	6
Total		18	14	32

6 History of Pounder wells – Mukono District:

6.1 Introduction

A new rig, the Pounder II, was brought into the country. The project was now moving to the uptake phase that involved facilitating the start of Pounder well drilling by private contractors with Mukono Districts Administration providing contracts.

A number of wells have been constructed with the rig, two of which have been constructed in Mukono. Table 7.1 shows the Pounder wells in Mukono.

Table 7.1: Pounder Wells in Mukono District

District	Sub-county	Parish	Village (LC I)
Mukono	Kitazi	Kitoma	Kasubi
	Ntunda	Ntunda	Ntunda

During the initial discussions, the Mukono district observed that the Pounder Rig was an opportunity to diversify the available technologies to develop community water source supplies. The district further observed that participation in the project did not require additional funds on the part of the district. The district made a decision that the Pounder wells would be part of the planned shallow well under PAF funding. Four villages (LC Is) were visited for siting. One of these was Ntunda. After a number of unsuccessful drilling attempts at the planned sites, and having drilled the Ntunda well, the district and the contractor (Blessed Contractors) made a decision to try drilling at other places within the district, in the this process, the Kasubi well was construction.

6.2 Community request for new water sources

In Ntunda, a prominent community member Mr. Gopali had from time to time requested for a new protected well for his area. The water source located to Ntunda village was thus sited in Mr. Gopali's land close to an open water hole that was the community water source. It is not clear whether Mr. Gopali's request was a community's request or just a request of an enlightened member of the community.

The village of Kasubi had long requested a new water source. Their source of water was a slow flowing stream down the valley. They often complained of long distance to the next village that had a safe water source.

Non of the communities paid community contribution at either household level or sub-county level.

6.3 Roles played by various stakeholders

Roles played by various key stakeholders and their future plans are summarised in table 7.2 below.

Table 7.2: Roles played by various stakeholders and future plans

	Before Construction	During Construction	After Construction	Future plans
District	<ul style="list-style-type: none"> Planned for water and sanitation activities in the district. Provided contract to contractor Supervised Extension workers 		<ul style="list-style-type: none"> Follow-up inspection of the developed water sources. Asking constructor to further develop the Kasubi well 	<ul style="list-style-type: none"> Ensure sustainable O&M. Ensure supervision of contracts.
LC III	<ul style="list-style-type: none"> Mobilise lower councils on improvement of water and sanitation facilities. Allocation of water points to parishes. Formation of Water source Committee 	<ul style="list-style-type: none"> Participate in site selection Monitoring the construction activities. 	<ul style="list-style-type: none"> <i>Make follow-up of water source committee activities.*</i> <i>Mobilise for O&M fund*</i> 	<ul style="list-style-type: none"> Make budget provisions for O&M activities. Training and Follow-up support of Water Source Committees Support O&M activities Ensuring continued maintenance of the water source
Community	<ul style="list-style-type: none"> Made request for new water source Formation of Water source committees 	<ul style="list-style-type: none"> Site selection Provide labour (pounding) Collect water used for drilling Provide meals to construction teams Ensure security of the rig and other equipment 	<ul style="list-style-type: none"> Establish O&M fund. Maintain the water source. 	<ul style="list-style-type: none"> Continued maintenance of the water source.

* *Applicable to Ntunda well only*

6.4 Operation and maintenance of the wells

The Pounder wells in Mukono are still new. No breakdowns have been recorded. Though declared complete by the contractor, the well in Kasubi has not been used. Follow up visit by the project indicate that there is still work to be done in developing the well. Communities however are aware that the responsibility of maintaining the wells is down to them. Already there are plans to establish O&M funds from the user community. The sub-counties also indicated their intention to make budget provisions for maintenance activities in their sub-county.

6.5 Community attitude towards the wells.

The Pounder well in Kasubi is still to be further developed and is not in use at the time of writing this report. In Ntunda, the community is satisfied with their new water source though they complained that most of the time the water is cloudy. The pump performance was said to be good. The yield however was said to be low after

continued pumping. These are all indicators that the community has a sense of ownership.

6.6 Some Observations

The Kasubi well is a demonstration of how poorly constructed works may be handed over to the community. Such construction may make undue demands on the community by raising the maintenance costs and at worst, rejection of the facility. Although not all payment to the contractor had been effected, the contractor had indicated completion of work.

7 History of Non-Pounder wells – Mukono District:

7.1 Introduction

As part of the monitoring exercise, two Non-Pounder wells were identified in Mukono district to obtain water quality data and history of the wells. The wells identified are shown in the table 8.1.

Table 8.1: Identified Non-Pounder Shallow Wells

District	Sub-county	Parish	Village (LC I)
Mukono	Buikwe	Katazi	Katazi
	Ntunda	Ntunda	Kyabazala

7.2 Background: Water development in Mukono District

Mukono district was (and continues to be) a beneficiary district under the Rural Water and Sanitation Eastern Uganda Project (RUWASA) funded by Danida and the Government of Uganda. RUWASA has been operating in Eastern Uganda for over ten years. Following the Government policy on decentralisation, RUWASA, in its second phase of operation, changed its implementation strategy from direct implementation to working through districts and the private sectors. Communities had to express their demand for new water sources by paying a community contribution of Ug. Sh. 180,000.00 for hand pumps and Sh. 45,000.00 for spring protection. The community contribution was paid either from the 25% tax revenue from LC III or by households that demanded the new water source. Community contribution would be deposited on a District RUWASA accounts by the community leaders and receipted by the District Water Office. The district was expected to contribute 10% of the total RUWASA contribution to the project. After receiving the Community contribution, the district would engage a contractor to develop the water source. Communities were not expected to make a great input in terms of manual labour or provision of construction materials to avoid complaints of delay or use of inferior materials by the contractor.

The project trained pump mechanics who worked independently. Pump spares were obtained from local dealers in Kasawo, Kajunga and Kampala. The demand and supply of pump spare parts being controlled by market forces with no interference from the district. It is against this background that the two wells under review were constructed and are being maintained.

7.3 Expressing demand for the water sources

The two communities gave varying reasons for making demand for a new water source. In Kyabazala, the existing water source was a flowing stream that was said to have been unsafe. The nearest safe water (bore holes) was a long distance from most households even then its water was said to have been salty. Community had a high frequency of water-related diseases such as worms and diarrhoea. In Katazi, households obtained their water from an unprotected well (water hole) that was often contaminated with surface runoff and often dirty. In both communities, LC I Chairpersons forwarded the demands for safe water sources to the sub-county. The Sub-counties used the 25% from tax collections to pay the community contribution to the district. Households paid no money in form of community contributions.

7.4 Roles played by various stakeholders

Roles played by various stakeholders and their future plans are summarised in Table 8.2.

Table 8.2: Roles played by various stakeholders and future plans

	Before Construction	During Construction	After Construction	Future plans
Community	<ul style="list-style-type: none"> ▪ Making request for new water source 	<ul style="list-style-type: none"> ▪ Site selection with sub-county/district officials ▪ Labour contribution ▪ Provided security for the equipment ▪ Provided meals to construction teams 	<ul style="list-style-type: none"> ▪ Formed Water User committees ▪ Established fund for O&M ▪ Improvement of household hygiene 	<ul style="list-style-type: none"> ▪ Continued maintenance of the Water source ▪ Acquisition of more safe water sources (Kyabazala)
LC III	<ul style="list-style-type: none"> ▪ Sensitise communities on need for safe water. ▪ Pay the community contribution from LC I funds ▪ Pay allowances to Extension Workers ▪ Follow up request at district level. ▪ Mobilise communities for O&M (formation of committees) 	<ul style="list-style-type: none"> ▪ Participate in site selection ▪ Monitoring of the activities of the contractors. ▪ Follow –up on the election of Water source Committees. ▪ Follow-up on construction activities 	<ul style="list-style-type: none"> ▪ Training and Follow-up support of Water Source Committees ▪ Support O&M activities 	<ul style="list-style-type: none"> ▪ Ensuring continued maintenance of the water source
District	<ul style="list-style-type: none"> ▪ Sensitise sub-counties on the working of the RUWASA project. ▪ Plan for water and sanitation activities in the district. ▪ Contribute to the project fund (10% of the total). ▪ Contract out the construction activities. ▪ Pay allowances to district staff ▪ Supervise Extension workers 	<ul style="list-style-type: none"> ▪ Supervise contractors ▪ Ensure quality product 	<ul style="list-style-type: none"> ▪ Ensuring sustainable O&M 	<ul style="list-style-type: none"> ▪ Making further improvement in the safe water coverage. ▪ Make follow up of existing watersources in the district

7.5 Operation and maintenance of the wells

Operation and maintenance plan for the two wells seem to have been successful to date. Breakdowns are reported to the water sources committee chairperson who contacts the Pump Mechanic who ascertains the source of the problems and cost

involved in carrying out repairs. The community meets the cost of spare parts and remunerates the pump mechanics. It was however noted that for both wells there was no preventive maintenance as in the periodic greasing of the chain in the pump head. It was reported that the last breakdown time for Katazi and Kyabazala hand pumps were one and two days respectively.

7.6 Community attitude towards the wells.

One element that has played a hand in the maintenance aspects is the acceptable quality and quantity of the water. Both communities were satisfied with the quality and quantity of water. In Kyabazala, it was said that the next village had a hand pump that gave salty water. Community expressed ownership of the wells and looked forward to receiving more wells in their communities.

7.7 Some Observations

A number of observations have been made in relationship to the Katazi and Kyabazala hand pumps.

- Communities can operate and maintain their wells with minimal input from the district. However, for this to work, there are some minimum conditions that must be obtained. These include;
 - ⇒ a genuine demand for safe water,
 - ⇒ acceptable quality of water,
 - ⇒ a well established system of reporting of breakdowns,
 - ⇒ well trained and well remunerated Pump Mechanics,
 - ⇒ knowledge of source of spare parts,
 - ⇒ an active water source committee.
- Though households did not express demand by paying community contribution, they have demonstrated their demand by maintaining their water sources.

8 History of Pounder wells – Jinja District:

8.1 Introduction

Jinja district like other districts in Uganda is implementing the District Water and Sanitation Programme (DWSP) under the Poverty Action Fund (PAF). The programme is demand responsive such that both communities and sub-counties make a contribution of Sh. 100,000.00 each before a well is constructed. Construction activities are supposed to be carried out by the private sector under the supervision of the district.

Jinja District Administration contracted Blessed Construction, a private construction company, to construct shallow wells in a number of villages in the district. Having had the experience of working with the Pounder Rig on similar contracts in Mukono district, Blessed Construction opted to use the Pounder rig to construct the wells. Two of the villages where wells were to be constructed included Makenke in Mafubira sub-county and Bukwanga in Butagaya subcounty. Table 9.1 shows the Pounder wells in Jinja

Table 9.1: Pounder Wells in Jinja District

District	Subcounty	Parish	Village (LC I)
Jinja	Butagaya	Lubani	Bukwanga
	Mafubira	Mafubira	Makenke

8.2 Community request for new water sources

The community of Bukwanga had long sought to have a safe water source. Though other villages had benefited from the RUWASA intervention, Bukwanga had not. The community continued to use an open water hole as their source of water. Occasionally some households would travel to the next village (Lubiri LC I) to collect safe water mainly for drinking.

The community were later mobilised (by the area Health Assistant and Local Council leaders) to collect Sh. 500.00 per household as a capital contribution to construct a new water source. A water source committee was also elected. The expectations and the waiting that the community went through can best be described by one of the community members

Many months had gone by but finally one day people arrived with this machine to construct a water source for us. The entire village was very happy, no wonder most of us ended up singing and dancing.

Makenke on the other hand has a different story. It is a relatively low income, densely population village with most households of migrant workers employed in the various industries in Jinja. The community had long applied to the sub-county for a new water source, their water source being an open water hole down the valley. No one had given the community feedback on their request for a new water source. The community was therefore was both happy and surprised when the drilling crew arrived in their village. No mobilisation activities had been carried out in this community, consequently, no water source committee had been elected.

8.3 Roles played by various stakeholders

Roles played by various key stakeholders and their future plans are summarised in Table 9.2 below.

Table 9.2: Roles played by various stakeholders and future plans

	Before Construction	During Construction	After Construction	Future plans
District	<ul style="list-style-type: none"> Plan for water and sanitation activities in the district. Provide contract to contractor Supervise Extension workers 	<ul style="list-style-type: none"> Supervise contractor 	<ul style="list-style-type: none"> Ensuring sustainable O&M. 	<ul style="list-style-type: none"> Ensure sustainable O&M.
LC III	<ul style="list-style-type: none"> Follow up request at district level. Allocate new water sources to villages. <i>Mobilise community to pay contribution*</i> <i>Form water source committee*</i> 	<ul style="list-style-type: none"> Participate in site selection Monitoring the construction activities. 	<ul style="list-style-type: none"> Training and Follow-up support of Water Source Committees Support O&M activities 	<ul style="list-style-type: none"> Ensuring continued maintenance of the water source
Community	<ul style="list-style-type: none"> Make request for new water source <i>Form water source committee*</i> 	<ul style="list-style-type: none"> Site selection Provide labour (pounding) Collect water used for drilling Provided meals to construction teams 	<ul style="list-style-type: none"> Identify Caretaker for the new water source. 	<ul style="list-style-type: none"> Established Water User committees Established fund for O&M

* *Applicable to Bukwanga well only*

8.4 Operation and maintenance of the wells

There are divergent ideas and attitudes related to O&M among the two communities. When asked about their plans on how to maintain their water source, the Bukwanga community indicated that they have already selected a caretaker and that in case of a breakdown, the community would collect funds to effect repairs. Communities were aware that there were trained Hand pump Mechanics that could be accessed, initially through the Health Assistant and eventually making direct links. The community understood that the responsibility of maintaining the pump was their sole responsibility.

The community in Makenke on the other hand thought the sub-county and the district were responsible for the maintenance of the well. Asked what the community would do in case of a breakdown, they said they would send the information to the sub-county who would inform the district. There was no water source committee to take charge of the maintenance aspects. By virtue of his office, the LC I Secretary for Defence had been charged with the responsibility of being a caretaker.

8.5 Community attitude towards the wells.

Community in Bukwanga were satisfied with the both quality and quantity of the water. Community expressed ownership of the water source. In Makenke however, the colour of the water would at times change to a light brown. Water was also said to have a salty taste. Its use however ranged from cooking to bathing and brewing and was used at the village jaggery mill.

8.6 Some Observations

The two communities underscore the importance of community mobilisation before the introduction of new facilities. The positive attitudes towards O&M expressed by the Bukwanga community could only have been a result of the mobilisation work earlier carried out in the community. The Community contribution earlier made by the Bukwanga community further reinforces the “our water source” attitude.

9 History of Non-Pounder wells – Jinja District:

9.1 Introduction

As part of the monitoring of shallow exercise, two Non-Pounder wells were identified in Jinja district to obtain water quality data and history of the wells. The wells identified are shown in the table 10.1.

Table 10.1: Identified Non-Pounder Shallow Wells

District	Sub-county	Parish	Village (LC I)
Jinja	Butagaya	Lubani	Lubiri
	Mafubira	Namulesa	Namulesa

9.2 Background

Jinja District is one of the districts benefiting from the Rural Water and Sanitation Eastern Uganda Project (RUWASA) funded by Danida and the Government of Uganda. The wells in Lubiri and Namulesa villages were constructed under Phase I of the project. Under this phase, the project was supply driven as opposed to the current demand responsive approach. Districts would make a priority list of sub-counties where new water sources would be developed basing on safe water coverage and population figures. New water sources would then be allocated to various sub-counties on the priority list. Sub-county councils would distribute the allocated water sources to needy villages. Villages, however, were encouraged to forward requests to the sub-counties for consideration. Neither the sub-counties nor the communities were expected to make any monetary contributions to the project fund. Communities were however expected to participate in the construction activities by providing locally available materials like sand and aggregate as well as provide unskilled labour when needed as well as to meet the costs of maintaining the facilities.

The project trained Pump Mechanics that were based at sub-counties. One or two mechanics would be trained for every sub-county depending on the number of hand pumps in the sub-county. The project further established spare part shops in key trading centres for easy access to spares. Communities were expected to finance the maintenance of the hand pump.

9.3 Community request for new water sources

The communities of Lubiri and Namulesa did not have safe water sources. Their water sources were open water holes that were often heavily contaminated. Both communities had discussed the lack of safe water sources at their LC I meetings. Communities were aware of the existence of RUWASA project and had often communicated to the LC III through community leaders requesting for consideration during the allocation of new water sources. Mobilization for improvement of sanitation had been on going and many households had improved their latrines by installing Sanplats (sanitation platforms). Having attained the acceptable sanitation coverage of 75%, the communities qualified for allocation of new water sources.

9.4 Roles played by various stakeholders

Roles played by various key stakeholders and future plans are summarized in table 10.2 below.

Table 10.2: Roles played by various stakeholders and future plans

	Before Construction	During Construction	After Construction	Future plans
RUWASA	<ul style="list-style-type: none"> ▪ Liase with district to allocate new water sources ▪ Conduct sanitation inspections to ascertain sanitation coverage. ▪ Provide funds for construction activities. ▪ Pay allowances to project mobilisers and district staff. 	<ul style="list-style-type: none"> ▪ Provide skilled manpower and machinery ▪ Meet the capital cost to the construction and installation of the hand pump. 	<ul style="list-style-type: none"> ▪ Train hand pump mechanics ▪ Establish spare parts shop ▪ Monitor O&M activities. 	
District	<ul style="list-style-type: none"> ▪ Sensitise sub-counties on the working of the RUWASA project. ▪ Plan for water and sanitation activities in the district. ▪ Allocate new water sources to the needy sub-counties. ▪ Pay allowances to district staff ▪ Supervise Extension workers 	<ul style="list-style-type: none"> ▪ Participate in the construction activities with RUWASA project personnel. 	<ul style="list-style-type: none"> ▪ Ensuring sustainable O&M. ▪ Establishment shop for spare parts 	<ul style="list-style-type: none"> ▪ Making further improvement in the safe water coverage. ▪ Make follow up of existing water sources in the district
LC III	<ul style="list-style-type: none"> ▪ Sensitise communities on need for safe water. ▪ Allocate new water sources to villages. ▪ Follow up request at district level. ▪ Mobilise communities for O&M (formation of water source committees) 	<ul style="list-style-type: none"> ▪ Participate in site selection ▪ Monitoring the construction activities. ▪ Mobilise communities to provide locally available materials. ▪ Mobilise communities to participate in the construction activities. 	<ul style="list-style-type: none"> ▪ Training and Follow-up support of Water Source Committees ▪ Support O&M activities 	<ul style="list-style-type: none"> ▪ Ensuring continued maintenance of the water source
Community	<ul style="list-style-type: none"> ▪ Improve sanitation to acceptable percentage coverage (75%). ▪ Make request for new water source 	<ul style="list-style-type: none"> ▪ Site selection with sub-county/district officials ▪ Provide labour ▪ Contribution of locally available materials. ▪ Provided meals to construction teams 	<ul style="list-style-type: none"> ▪ Established Water User committees ▪ Established fund for O&M ▪ Improvement of household hygiene 	<ul style="list-style-type: none"> ▪ Continued maintenance of the Water source

9.5 Operation and maintenance of the wells

There does not seem to be any major problems with the O&M of the wells. Communities know where the Pump Mechanics live. Any breakdowns are reported to the mechanics. Mechanics do the repairs and charge the community for costs involved. Spare parts are bought from Jinja Town. For both communities, contributions for repairs are only made when there is a breakdown. There are no accounts for O&M funds. The Lubiri community noted that it was easier to collect O&M funds when there was a break down rather than make the collection when there was no problem at all. In Namulesa, communities said they would not be sure that their money would be safe and available when they needed it if they collected it before a breakdown. At the time of the visit, the hand pump had been broken for the last four days. Community had been advised to collect Sh. 45,000.00 to effect repairs. In Lubiri community, the last breakdown had taken two days to repair.

The district has expressed concern on the overcharging of communities by Pump Mechanics. Communities have no way of knowing the cost of spare parts and often the mechanics demand much more than the costs involved. The district is thinking out strategies of how to educate communities on costs of various fast moving spares.

9.6 Community attitude towards the wells.

Community in Lubiri were satisfied with the both quality and quantity of the water. In Namulesa however, the water was said to have a salty taste and was not used for drinking purposes. The community however said they use it for cooking, washing and other domestic purposes. Both communities expressed ownership of the wells.

9.7 Some Observations

The community in Lubiri has demonstrated ownership of the water source though it was obtained through a “supply” process rather than a “demand” process. The community mobilisation, coupled with the communities needs (expressed or otherwise) for safe water and the quality of water obtained seem to be import factors in the eventual community ownership of the water source and subsequent community efforts to maintain the source.



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Histories of Pounder Wells and Hand-Augered Wells in Mpigi, Mukono and Jinja Districts

Rwamwanja, R.; Carter, Richard C.

2001

Cranfield University

<http://hdl.handle.net/1826/2792>

Rwamwanja R and Carter R C; Histories of Pounder Wells and Hand-Augered Wells in Mpigi, Mukono and Jinja Districts, Knowledge and Research (KAR) Project R7126 "Private Sector Participation in Low Cost Water Well Drilling" Cranfield University, 2001