



Community-driven development: understanding the interlinkages
between individuals, community-based workers and institutions.

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Case Study: Hai District Water Supply Project

By
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Community-driven development: understanding the interlinkages between individuals, community-based workers and institutions.

The purpose of this research is to identify the potential and constraints of community-driven management and service delivery by tracking the evolution of participation, in selected projects as shaped by the interface between individuals, community workers and institutions.

Pro-poor community-driven development is both enabled and constrained by individual identities, the actions of community workers and the workings of institutions. The positive aspects can be enhanced through a greater understanding of individual motivations, institutional processes and improved monitoring techniques. However, the limitations of such models must also be recognised.

This research has three objectives: (1) to understand individual participation in collective action; (2) to understand the contribution of community-workers to participatory processes; and (3) to understand the possibilities of 'getting institutions right' for pro-poor development.

The research analyses case studies of community-driven development activity in relation to water and HIV/AIDS in Tanzania and South Africa.

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*This Working Paper Series is dedicated to the memory of
Comfort Mfangavo
enthusiastic research partner in Dar es Salaam.*

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Working Paper 8

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Key findings

Overall, the Hai District Water Supply Project is a self sustaining system for the management and supply of water. The management model of using water supply trusts (at sub-district) level appears to be successful in achieving a balance between having some local accountability and responsiveness, and in establishing an effective and efficient system of water supply on a large scale. However the system does show some tensions at the village level.

The key findings are structured in relation to our three research objectives.

1) Who participates?

A small group of older, middle ranking individuals with good social status act as public tap attendants and community representatives in the project and in collective village life more generally. They are motivated by a desire to bring ‘development’ to their community and often emphasis that they were asked or selected to take on such roles.

2) Community-based workers

Whilst the supply trust sees PTAs as self employed and liable for debts, PTAs see themselves as volunteers working for the development of the area.

They claim that self-employment does not pay in terms of opportunity cost of time spent at the taps. Some taps are commercially viable but others are not and the system does not recognise this. Public taps are closing due to this issue but the supply trust sees this as an individual failing of those selected to be PTAs.

Another important (but often undervalued) group of community-based workers are community representatives. They devote considerable time to civic duties and in this case provide the lowest level of management for the supply trust. This raises questions concerning the direction of accountability of the board of the supply trust.

3) Getting the institution right?

The system of water management at the village level shows variation from the model envisaged by the formal project. This is most clearly seen in relation to pricing of water. The PTAs can exercise their agency and shift the actual pricing of water away from the official price. This money is not simply used to benefit themselves but in some case is used to give free access to those who cannot pay for water, who are unrecognised by the formal system.

Introduction: Three systems for managing water supply in Tanzania

This case study relates to the Hai District Water Supply Project in Tanzania. It is one of three interventions in the water sector examined in this research. It is a donor-funded project that works in partnership with local government but it has also established a new institutional structure (independent water supply trusts) for the supply and management of water in Hai District. The other case studies covered in this research are a village-level water-users association (donor-funded) and a village council managing a piped system with no external assistance (Working Papers 6 and 9 respectively). Therefore this case study when viewed in combination with the others offers lessons concerning community participation and representation, the scale of intervention, and the various roles of community-based workers. The questions that guide the case studies can be condensed in three key questions: a) How is individual participation in collective activity shaped? b) What is the role of CBWs in such collective activity? And c) What is (or should be) the role of institutions in pro-poor development?

The methodological approach in all of these case studies is to provide a contextual understanding of the geographical community in which an intervention is operating. This allows us to track the ‘transversal logics of action’ so that we reveal how an intervention is positioned in relation to other institutions and not simply viewed as a closed system. Hence the analysis of the community-based system is decentred and placed in relation to other community and collective actions.

This case study begins with a discussion of the Hai District Water Supply project as a whole and then focuses its attention on the operation of the Lawate-Fuka water supply trust (LFWST). In order to answer the research objectives we then narrow further down to one of the villages served by LFWST- Koboko village.

A brief community profile of Koboko village is provided, followed by analysis of the data collected on the community workers who are engaged in the water project at village level in addition to a consideration of how the intervention has evolved at the community level.

1. Hai District Water Supply Project: Project background

The Hai District Water Supply Project is supported by the KfW (the German Financial Cooperation) and aimed at its inception to supply the 200,000 inhabitants of the district with clean drinking water. The official inauguration of this project took place in 2001.

However, the initial phase of the project began in 1997 with 12, 95 million DM and with a contribution of 238.7 million Tsh by local government. This phase covered a population of 90,000, established around 300 private household connections and 185 public taps. Two further phases have now been completed bringing the total of new public taps to 785. These taps are serviced by rehabilitated or newly constructed reservoirs. Construction operations are overseen by CES (Consulting Engineers Salzgitter), a German company with an office in Moshi.

In collaboration with Hai District Council a network of water supply trusts were established to operate and maintain the new system and to manage the collection and generation of revenue.

Through this case study we explore the operation and evolution of this water system at the village level¹. However it is important to understand the linkages within the system. The following organogram shows the organisational linkages in the management of this system. It charts the linkage to Koboko village which is under consideration in this study.

¹ The case study is based on data collected by Ernest Msuya, Rhoda Mdee and Yusuphu Mfinanaga who were resident in Koboko village from March-October 2005. They conducted over 100 livelihoods and water user interviews, and undertook a community mapping and institutional profiling exercise. They also surveyed a sample of public taps and conducted life-history interviews with 13 public tap attendants. They also undertook participant observation in the community and attended and recorded community meetings (such as Village assemblies) during this period.

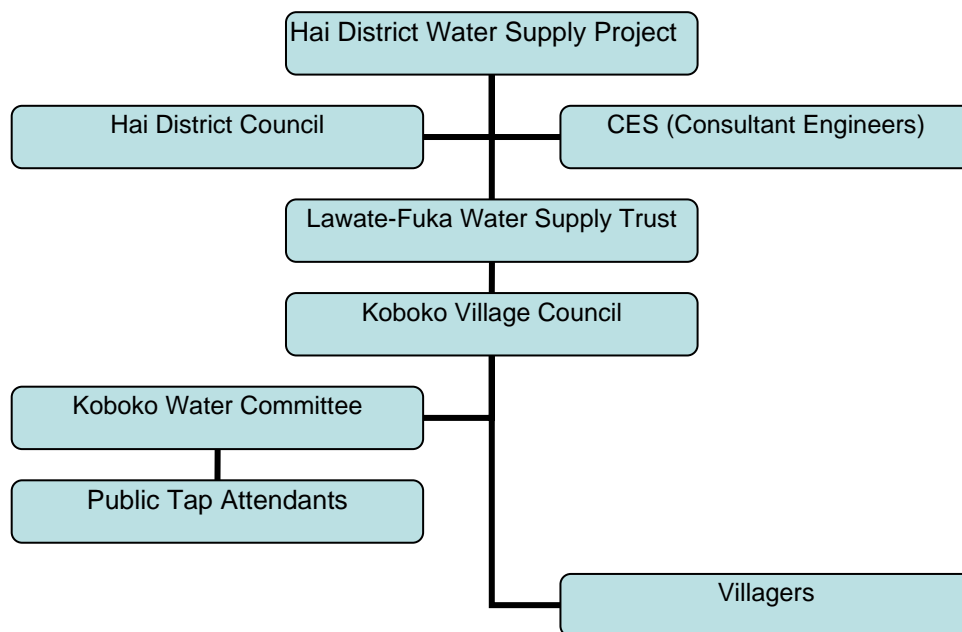


Fig 1 Organogram of Hai District Water Supply Project

KfW² suggest that the decision to operate using local trusts was an efficiency-related decision. It was considered that a water trust managing the supply of a number of villages would be the most commercially viable model. This model was favoured over village-level water user associations which were considered to be too localised to be fully viable. However, the trust was also considered to be sufficiently localised to make the collection of revenue easier and to respond to local needs. KfW also proposed that the creation of a new institution (the trust) would effectively by-pass existing political conflicts, although this suggests a rather unrealistic expectation that the trusts would not be influenced by pre-existing institutions and social relationships.

As figure 1 shows the scheme does incorporate existing village-level entities into its operation and maintenance. All water points established by the project are fully metered. Private connections are billed by the water trust office. However public taps are operated by tap attendants who receive a proportion of their takings (currently 15%). Selection and management of attendants is co-ordinated through the water committee of the village council. The chairperson of the water committee also represents the interests of the village as a board member of the water supply trust.

² Interview with Gunnar Schneider – KfW Office DSM, Tanzania 18th June 2005

The board of the water supply trusts consists of professional staff (responsible for the day-to-day operation) in addition to village representatives and other institutional stakeholders such as hospitals and schools, and faith-based organisations. The board is responsible for setting the price of water and also for negotiating the level of commission that can be retained by the tap attendants. There is no mechanism within the trusts for providing exemptions for payment for water. KfW argues that this could, in theory, be negotiated locally.

Trusts are the sub-district level body created by the intervention to manage the water supply system. Trusts operate as independent entities, although they may call on District Council in resolving local disputes (such as access to water sources or sabotage of pipelines). They also have to work in cooperation with the River Basin Authorities in negotiating issues over rights to water sources.

Lawate-Fuka Water Supply Trust (LFWST)

This case study concentrated on the community engagement of the residents of Koboko village. The water supply to Koboko village is provided by the Lawate-Fuka Water Supply Trust. The supply trust was established in 2002 and is located between the villages of Koboko and the town of Sanya Juu around 40km from the Moshi-Arusha highway. The trust employs a total of 13 professional staff (Manager, Accountant, Assistant Accountant, Engineer and 9 Water pipeline attendants making a total of 13). It oversees the supply of water to 11 villages. The following table provides a quantitative overview of the system in terms of consumption, coverage and financial management.

Table 1 Lawate-Fuka Trust Statistics³

Water coverage	
No of village covered by project	11
Length of transmission and distribution	129.4km
Population in the area	38, 859
Population served	32,879
% of population served	85%
Total number of public taps (PTs)	176

³ Report submitted to KfW by Lawate-Fuka Water Supply Trust- June 2005. 2000 Tsh is equivalent to £1- correct at April 2006.

Total number of house connections	916
Total number of connected institutions	50
Water production average per day in m ³	702
Average consumption per capita per household (l/c/d)	59
Average consumption per capita per public tap (l/c/d)	12
Total storage	1100m ³
Financial Operations	
Collection efficiency year 2004	99.9%
Total amount billed year 2004	61,325,800Tsh
Revenue collected year 2004	59,596,595Tsh
Assets depreciation	15,084,000Tsh
Water tariffs	
Public taps	250Tsh/m ³
Household Connections	1-25m ³ -300Tsh 26-100m ³ -350Tsh Above 101m ³ -400Tsh
Social Institutions	1-150m ³ -300Tsh Above 150m ³ - 350Tsh
Kibongoto TB hospital	1-1500m ³ -250Tsh Above 1500m ³ -300Tsh

The table above shows that the consumption of water per capita is less than half that recommended by the Tanzanian government as a minimum (25L) in their 2002 water policy. Whilst at the private taps the consumption is over twice the minimum daily amount. The higher figure at the private taps may also be due to the common practice of selling water from private connections.

The differential pricing of water at private and public connections is intended to make the system fairer for the poor as well as to reflect the increased cost of sending water to a private connection. There is no official system in place for people to receive exemptions for water charges.

The Trust made a small profit of around 6 million shillings (approx 6000US\$) in 2004 and holds cash reserves of 34 million shillings (34,000 US\$).⁴

Minutes of board meetings also show an active involvement on the part of the board in overseeing the professional staff (for example raising concerns over the Managers leave of absence to undertake consultancy work), in bringing concerns from tap attendants over commission payments and in discussing the financial records of the trust and amending the constitution.

The professional staff of the Trust are well qualified. The Manager is an Engineer by profession with extensive experience of the water sector having started his career in the Ministry of Water in 1978 and was the Chief Engineer for Dar-es-Salaam before moving to the private sector. He originates from this region and so decided to take up his position with the Hai project in 2002 as he neared retirement. He also continues to work as a consultant with Mott McDonald on an Urban sanitation strategy for all towns in Tanzania. Therefore he now only spends 2-3 days per month in the project office. The Accountant runs the project in his absence.

From interviews conducted with the professional staff of LFWST problems with operation and maintenance can be split into two main areas: firstly there is excessive leakage from some of the pipes running across farmland caused by people cultivating the land, and some of the meters were faulty which led to accounting problems. Secondly the payment system has had some problems both with the public taps and with private connections. Trust staff argue that some of the public tap attendants (PTAs) had been using the money for their own purposes and their taps were disconnected when they cannot pay. The professional staff tend to view the PTAs as private and commercial operators, however as is discussed below the PTAs themselves view their role quite differently. Private connectors who default are also disconnected.

From the Trust's perspective the project met some local resistance initially and there was a problem with vandalism. However with the assistance of the main project the culprits were caught and jailed. The Village Water Committees (VWCs) are asked to police and to guide

⁴ Lawate-Fuka quarterly report 30/06/2005

the tap attendants to carry out their duties properly. This connection to the local is seen as providing local accountability to the trust as opposed to providing a link for accountability of the trust to the community.

The focus of the professional staff is necessarily based on establishing and running an effective and efficient water supply system. The Manager argues that they already make concessions towards the poorest through the differential pricing of water. He also doubts that it is beyond the means of any to pay 'they have families and they should pay for them'. The Manager also acknowledged that the management are aware that people with private connections are selling water but do not oppose this as they view this as a private decision and a means of extending the system.

This section highlights what could be characterised as the formal framework of the water supply trust. It is outlined here so as to provide the context for the following discussion of how the system is translated at the village level.

2. Koboko Village case study

Livelihoods

Koboko village is located 40 km from the town of Boma is made up of the six hamlets of Nakayale, Nasai, Omariniyi, Kikwe, Omaro and Mosiny. The village is located on the lower slopes of Kilimanjaro and is considered to be a lush and fertile area in which to farm. The village is comprised of small homesteads fenced with bushes. There is also some commercial activity in the form of small shops, bars, beauticians, tailors and mechanics located along the roadside.

From the roadside Koboko appears to be is a relatively wealthy village as this is the location of commercial activities and the compounds of the wealthier households. Away from the roadside the housing is poorer and often in a state of severe disrepair. Livelihoods interviews show that most people farm between ½ and 3 acres of maize, beans and sunflowers which are grown largely to meet the subsistence needs of the households. Some people also grow a small amount of coffee as a cash crop and it is noticeable that new varieties of coffee are now being planted in some homesteads. However, in recent years coffee has been an unprofitable enterprise.

Some women derive most of their incomes from trading in Sanya market or from selling local beer (dadi). The area is also known for the production of seedlings for fruit trees and hedging which are sold in other parts of Tanzania. Many homesteads in the wealthier roadside area have space set aside for the propagation of plants.

This area is also known for the out migration of the young to the urban areas and a number of the elderly population reported being supported by the remittances sent home by their children. Livelihoods interviews certainly suggest that the population is dominated by the elderly and married women, with many younger men and women having migrated to the cities of Arusha and Dar-es-Salaam.

Collective Identity and association

The majority of the residents of Koboko are Chagga by origin. There is a cultural group but few people know much about it or participate in it as it is only associated with performances in relation to government celebrations. Participation in collective life is not exclusive to Chagga as the chairman of the water committee in Koboko is Masaai although he has lived in Koboko for most of his life (see profile of Ramadhani Mollel – appendix 2). However, it is said by some that decision-making in the community is dominated by a small group of individuals who are not open to change from the outside. One woman member of the Village Council reports that no one listens to her views in meetings as she is seen as being an outsider as she moved to Koboko from a nearby village.

This area shows a roughly equal mix of Catholics and Lutherans and has a very small Muslim population. There are two churches in Koboko- one catholic and one Lutheran. There is also a dispensary at the Catholic Church but most people say that the charges for treatment are very high. There is no government health provision in the area.

Koboko has two primary schools but no secondary school although the Village Council is in the process of organising labour and contributions for the construction of a secondary school in the larger village of Sanya. Although there are no fees for primary education, families must make contributions of food and cash directly to school. Most families see school expenses as a major item in their household economy.

One significant issue arose from the livelihoods interviewing regarding the pressure that people feel to make financial contribution to religious institutions:

‘If you don’t pay no problem but they will not solve any problems for you when they arise’
(I1)

‘You should pay them or they will isolate you’ (I14)

‘You pay as a “god bless you”’ (I18)

If you do not pay they will segregate you’

‘You will not feel good as it is a job of god’.(I15)

The contributions are used for church building and repairs, to pay the salaries of the clergy as well as for donations to the poor. There is also a Catholic women’s association WAWATA (wamama wa Catholic). Members are also required to pay a contribution but the members interviewed did not know very much about the organisation as they said that they were new. The Catholic church also provides a small health facility but the cost of treatment prohibits the poor from seeking treatment.

There is a small minority of Muslims in the area and the Mosque asks for contribution to the Madrassa and to the funeral fund.

Water

Koboko has relatively high rainfall and there are a number of natural springs in the area. The government installed a limited piped system in the 1960/70s but as in many areas this had not been maintain and water flowed in the pipes infrequently. Since the establishment of the project the water supply of the village has improved considerably, although people now have to pay for all water consumed. The majority of water users appreciate the regular supply of water to the village and believe that the Trust is doing a good job. However, most also believe that the charges for water are too high and that the Trust is a purely commercial enterprise. There is a perception that since the running of the project was taken over by Africans⁵ that it was they who increased the prices. Interviews reveal that there are some who cannot pay for water and who continue to use agricultural furrows to supply their needs.

Village government

The Village Council in Koboko oversees village development activities. In the past it received income from the taxation of small businesses and income generation projects. However at the time of the research the council has no other income other than community contributions for specific projects. Neither is the village council held in particularly high regard by the general population. The previous Village Executive Officer was found to be stealing Village funds and the matter has not yet been fully resolved (see appendix 2).

⁵ In the inception phase of the project the German consultancy CES managed the upgrading of the pipes and the building of reservoirs.

Communal labour is an important part of collective village life and is used in a range of village developmental activity including digging furrows for the water project, classroom construction for the Sanya secondary school and road maintenance. In Koboko village communal labour is undertaken by active young men. Women and the elderly and disabled are exempted. If people do not participate then village government will routinely confiscate and sell some of their possessions. Amongst interviewees it was frequently asserted that communal labour was undertaken mainly by the poorest as the wealthier can buy themselves out.

One important function of the Council in the context of this research is that one of their sub-committees is the water committee. This committee is linked via the Chairperson who sits on the board of the Lawate-Fuka water supply trust. The chairperson thus represents the views of the community to the board. This committee also oversees the recruitment and management of the public tap attendants. As Ramadhani Mollel explains- 'We had to choose people that we knew would be honest and responsible. These people should also be loved by the people and be willing to volunteer'- see appendix 2..

This section demonstrates the range of activities in which people are actively and collectively engaged: in making a living, labouring on collective projects (whether village or faith-based) and in making cash contributions for services, and community projects. It also provides essential contextual information that allows us to understand how the operation of the water system evolves and fits with village life more generally.

Community-based workers

Having considered the range of forums for community participation in Koboko the study moves to consider those who actively shape the local arrangements for the management of water.

In this study several categories of community-based workers are involved in overseeing the water system. The professional staff of LFWST should not be classified as CBWs as they don't necessarily live locally and perceive themselves as technical and specialist. CBWs therefore fit into two main categories: tap attendants who are the agents for the sale of water from public taps and work on commission; and secondly elected representatives who directly and indirectly act as the interface between LFWST and the village population as a whole. This second group people are generally volunteers working for no financial reward, although

they can raise taxes from the village, undertake collective business ventures and receive allowances for attending some meetings. Appendix 3- profile of Doris Mmari suggests that sitting allowances can be a valued incentive for community representatives. In addition, the Village Executive Officer (VEO), an appointed civil service official and (usually) village resident is a salaried position, but could certainly be classified as a CBW.

Public Tap Attendants

For this research PTAs were interviewed in relation to their life-histories and their roles as attendants. Interviews took place both in their own homes and whilst they served customers at the public taps.

It is noticeable that a majority of the attendants in Koboko are middle-aged and male. They are also often part of the village governmental system, for instance Ramadhani Mollel is chairman of the Water Committee (and therefore a board member of LFWST). Another Tumaini Amon is a Hamlet Chairman and thus a member of the Village Council. See appendices 1 and 2 for a profile of Tumaini Amon and an interview with Ramadhani Mollel. The explanation for such a profile is the selection of PTAs by the water committee, which makes it more likely that the people chosen as PTAs will be those already active in collective village activities.

Of the 9 (out of a total of 19) attendants interviewed all were middle-aged to elderly (ranging from 30 -74 years of age.) Of the 5 women and 4 men interviewed it was noticeable that all of the attendants were relatively active in civic life in a number of different forums or were well connected to those who are. For example: Angela Jafeti's brother-in-law is the local MP, Martha Oscar's husband is a member of the Village Council, Deotreffe acts as an advisor to the local MP but has been actively involved in local politics all of his life (from colonial times as advisor to the local chief, then as a District Councillor and now as an activist and educator within the Lutheran Church. He states that his reason for acting as a PTA was that he gave the land on which the tap is sited and therefore should act as a volunteer to serve the people.

The majority of interviewees say that they did not put themselves forward but were elected by the water users in their area and many use the term 'volunteer' to describe their work. Many also consider that the role they play is a public duty and part of their desire to bring 'development' to their community. This local perception stands in contrast to the treatment of the PTAs by the official system. The formal system views the PTAs as being self-employed

and making a profit. As such they are personally liable for any debts to the supply trust and must sign a contract to that effect.

In the second round of interviews with PTAs conducted in April 2006, dissatisfaction was rising amongst PTAs. One reported that he spends 4 hours tending the tap each day and may only receive around 50Tsh in commission. He was on the verge of giving up this role but he was sure that the public tap would then close (as others were reluctant to take on the role) and people would have to walk a long distance to another tap. He warned of a crisis in the system and claimed that the Trust management board were blind to the problem.

‘The board is not interested but when every attendant is closed they will get interested. In the Board, members think that things are going well but they don’t come here to find out.’
Interview with PTA –Samuel Maleo10/4/06

Therefore it seems that PTAs and the professional staff of LWFST have very different perceptions of the motivations of the PTAs. The PTAs themselves think of themselves as volunteers as the remuneration they receive for the time spent at the tap is often very low. The professional employees of the supply trust see them as self-employed and gaining financial benefits.

PTAs are usually closely connected with the Village Council system which reflects the fact that the Village water committee is responsible for the selection of the PTAs. As will be explored below there is a tension within the system concerning the regulation and control over the pricing of water.

Village Representatives

As mentioned above the villagers interests are represented to the trust by the chairperson of the water committee. The water committee is a sub-committee of the Village Council which is elected every five years. The most recent elections took place in October 2004, however the water committee is governed by different model as recommended by LFWST and is elected at a special meeting. There must be equal representation of men and women. Doris Mmari (appendix 3) cites this as evidence of the democratic functioning of the committee. She also describes the duties of the water committee and states that she was personally requested to stand as a member given her background in local politics and business. The selection for the committee was competitive and was seen as an important role to be undertaken by community members with good education and status. The committee members play an active role in the day to day management of the water system at the village level.

They must deal with the debtors, appointing new attendants, and reporting breakdowns. They receive training from LFWST on how to operate as a committee.

The chairperson of the water committee is currently Ramadhani Mollel who also serves as a tap attendant. He thus takes a dual role within the village as both a representative and as a tap attendant. We might argue that the perception at the village level of the attendants themselves is that they act as volunteers serving the community (rather than gaining financial benefit from the project); therefore there is little distinction between serving as a tap attendant or a community representative. Those on the water committee did receive meeting allowances in the past when people who wanted a private taps had to pay a fee to receive the application forms. However there is no financial support from LFWST. Whilst village representatives all speak of their desire to 'develop' their community, it does appear that the project itself tends to view them as the lowest level of management.

For instance the minutes from the meeting of the Koboko Water Committee (9/6/05) indicate that the pricing of water is discussed and that the Trust have asked that the correct pricing be enforced. However, in turn the committee also raise the concern that the sitting allowance for members of the committee should be raised to 2000Tsh as this would 'motivate the members', as they are being asked to carry out enforcement work for the trust.

Evolution of the water supply system

Interviews with water users and tap attendants provide the data discussed in this section. This section is therefore a consideration of the evolution of the rules in practice. It is instructive to compare these with the rules in theory established through the bureaucratic processes of LFWST. The issue of water pricing shows considerable evolution and will be discussed in this section.

The water committee is formally a part of the Village Council, and discussions with the Village Chairman (VC) and Village Executive Officer (VEO) in Koboko reveal that in many ways they are satisfied with the improvement in the water supply. They argue that previously when the water was free the supply was infrequent due to the deterioration of the pipes. As the water was free people would also use water very extravagantly when it did come. However the cost now forces people to conserve water.

Interestingly they also state that another benefit of the regular water supply is that 'now people have more time to do development work. They have time to farm, to cut hay and to

set up some small scale businesses. Livestock are also becoming well and people are able to do horticulture.’ (Interview 11/7/06)

However, it is apparent that in Koboko, the VC and VEO feel excluded to some degree from LFWST and argue that really villagers have no influence over the constitution of the board or over the pricing of water. They are aware that some villagers struggle to pay for water at the public taps. They also confirm that whilst the official price for water is 5Tsh, in reality customers are charged 10Tsh in order to compensate the attendant adequately for the time spent at the tap.

They are also concerned with the price of a private connection which according to the Village Office has risen from 50,000Tsh at the inception of the Trust to the current price of 135,000Tsh. They speculate that LFWST is trying to keep the number of private connections down in order to conserve water supplies.

In some ways they feel themselves to be in a difficult position as they are the Village leaders and people look to them to solve problems however their powers to change anything in the trust are quite limited. They believe that one of the major problems is that the water attendants are not able to open the water meters so they have to guess the quantity of water that they have served. ‘They should be able to operate the taps more like a petrol station’ Village Chairman, 18/6/05.

They also feel slightly misled by the project. They were asked to mobilise village labour to dig trenches for the project on the understanding that they would be helped by the project in terms of financial contributions to village projects such as the construction of a medical dispensary, but now their perception (one that is shared by many individuals) is that it is being run as a business.

The relationship between the water committee and the Village Council is slightly obscure. Whilst it is in some ways a sub-committee of the VC it is not selected through the village council and must report to the Village Council, however it was elected by a separate meeting. Therefore members of the water committee are not necessarily members of the Village Council

The water committee thus seems to have become a subsidiary of the water supply trust and acts as an executive arm in mobilising communal labour and in recruiting and managing the system of public tap attendants. Records of board meeting show that community representatives are asked to educate people on the benefits of the scheme and to encourage them to pay their bills on time and to mobilise labour when required. However, the community representatives do have an influence on the management of the project. Given that community representatives and tap attendants are often the same people they are able to assert their own interests. For instance they were able to argue that the commission paid to attendants should be increased from 10-15%.

Pricing- it depends on who you ask

Interviews overwhelmingly suggest that the actual price of water ranges between 10 and 30 Tsh per bucket. The most common price customers report at the public tap is 10Tsh but in some areas the price rises to 20Tsh. Many interviewees considered these costs to be too high and some supplement their water usage by collecting from nearby rivers. In common with findings from other case studies some households do not have sufficient cash income to be able to buy water whenever it is needed.

‘I can get water from my nearby public tap but sometimes I have to go to the forest to fetch spring water which is free. I have a lot of problems so I am unable to even buy water because I have to look for food and also my house is almost falling down. My husband is dead and one of my children has a mental problem. If I could get assistance to take him to school that would help me a lot.’ I23

Those with private taps admit openly to selling water to their neighbours at between 10 and 20 Tsh per bucket. Some complain that the connection fees for private taps are too high and that charges seem to be large even when you don’t use much water. One woman explained that ‘the cost of water is so high so sometimes you have to pay the meter reading person 300Tsh so that he reduces the bill’ I13 -14/6/05

There seems to have been a gradual upward evolution in pricing from 5Tsh (still the official price). One woman attributed this to the local management of the system. ‘We used to go to

the taps of the Europeans because the price was cheap, but now we must go to the forest tap⁶ as the Europeans don't manage these taps anymore. For those who are unable to pay the availability of credit appears to be variable- some assert that it is available but only sometimes and others say that credit is not available in any circumstances.

Surveys of the public taps during July and August 2005 reveal some variations in pricing of water and the opening hours of public taps. Table 2 shows the three patterns of pricing at public taps which depended on whether they were part of the LFWST system and also their proximity to other sources of water.

Tap characteristic	Price	Customers
Non-Trust	Free access and service	Used for domestic tasks and by those who 'miss money'
Trust-Near to furrow	10l- 5Tsh 20l-10Tsh	Customers collect small amounts for drinking, collect from furrow for other uses
Trust- Further from furrow	10l-5Tsh 20l-10Tsh	Customers purchase larger amounts than in other areas

Table 2- Characteristics of public taps in Koboko

There are several sources of free water in Koboko (Maliya spring and the forest tap were included in this survey). As discussed above people use them to supplement their water usage for domestic tasks and when they do not have cash available to purchase water from the public tap.

The official price for 20l of water from a public tap is 5Tsh however this survey found that the price for 20l was actually 10Tsh. Water attendants justified this universally by saying that the time they spent at the taps was not sufficiently compensated by the 10% commission that they receive from the LFWST. Only one attendant (Ramadhami Mollel- Chairman of the Water Committee) reported a different price (7.5Tsh per 20l), although this is perhaps doubtful as half shillings (50 cents) are no longer in use.

In several areas the number of customers using the public taps was low. The reason given by the attendants was that many people in those areas have private taps. Therefore as people

⁶ The forest tap ran from a pipeline serving a government forestry office. Water was freely available from this tap

have to pay 10Tsh at the public tap there is no incentive for them to use those taps when they can easily purchase water, at the same cost, from their neighbours.

The decisions concerning credit and access to water are largely at the discretion of the tap attendant themselves. Neither LFWST or the Village Council have any system of allowing free or subsidised access to the poorest. However, individual arrangements have arisen as both Ramadhani Mollel and Doris Mmari indicate in appendices 2 and 3. One justification they give for the tap attendants increasing the price of water to 10Tsh is that the profit can then be used to cover a free allocation of water to elderly women. These arrangements are formalised at the tap level but are not considered in the system as a whole.

Opening hours

It appears that public tap opening hours can also be erratic, despite the official opening hours being 6:30 am- 9am and 4pm until 6pm. However, there would also appear to be a significant number of tap closures due to non-payment of the bill. This resulted in people purchasing water from neighbours with private taps or walking long distances to open public taps. As was emphasised in the interviews with tap attendants many find the long hours spent at the tap are rewarded with very little income and hence they have less incentive to open the tap at regular hours. The issue of public taps being closed is perhaps more of a concern with regard to access to water for all village residents. Given that the public taps are managed essentially within the Village Council, those public tap attendants tend to have higher status within the village. They are also active within many spheres of collective life and therefore perhaps are not the people most suited to the role. However, they are perceived as having a suitable social standing to take on the responsibility of such a role. It maybe that there are other residents who would gain from the opportunity to operate a public tap in terms of the small cash income it generates and the potential to increase their social status and visibility.

Conclusions

This case studied examined the operation of the Hai District Water Supply Project in one of the villages in Hai District. The purpose of the intensive case study was to explore the participation of the community in the operation of the project and collective activities more generally. It also sought to consider the role played by community-based workers specifically in the management of water and also how the system had evolved through local interactions.

The study finds that the water project is a successful project in terms of increasing the supply of water to the village and to the district. It is successfully collecting payments and is financially sustainable.

Participation in the management of water in Koboko village is restricted to a relatively small group of people who are noticeably active in other spheres of village life, such as Village Council. They are generally socially well connected and older village residents.

The community based workers in this case study fall into two categories- public tap attendants and village representatives. People occupying these roles emphasise that they are volunteers motivated to act for the benefit of their community. At the same time they expect to be rewarded for their work. We can see this in two aspects- the dispute over the payment of commission at the public taps and the calls for sitting allowances for meetings to be increased. However, it is also clear that both sets of CBWs are regarded by the professional employees of the trust as the lowest level of trust operations and therefore responsible for regulating the behaviour of customers and attendants. There is clearly a tension between these two perceptions. It also seems that there is little accountability of the local trust to villagers, and that the mechanism to insert accountability is actually used to manage the system and ensure the accountability of the customers to the trust.

The actual operation of the water system at village level differs from the formalised system outlined by the project. The price of water shows considerable variation as do local patterns of water use and access. Some people clearly have difficulties in paying for water but a few local mechanisms have arisen to allow vulnerable people (such as elderly women) free access. However the trust has no formal system for ensuring access. This local adaptation shows that the PTAs can and do exercise active agency (within limits) in altering the system to suit local conditions and to potentially increase the rewards for their role.

In this project a reasonable balance appears to have been struck between community participation and bureaucratic management. There is no particular emphasis on unrealistic notions of community ownership, yet the community is involved in the project (albeit in a rather managerialist way) and can extract changes from the trust management (such as increase in commission to PTAs). However, real tensions do remain concerning the perception that the trust operates as a business whilst drawing on the volunteerism of its customers. This dilemma requires further consideration.

Appendix 1

Profile: Mr Tumaini Amon

Mr Amon is 70 years old and is chairman of the Nakayale hamlet within Koboko village. He is responsible for the public tap nearest to his home. The opening hours are from 6:30-9:00am and 4:00-7:00pm. He was appointed to his position in 2003 by the village leaders.

He argues that nobody has difficulty in paying for water: 'there are no poor people who get water from this tap. If they did they could get credit, I have an exercise book for credit. If we do have a poor person we will bring their name to the village office and also to the water office' (interview 19/7/05).

He receives 15% of the money he collects at the tap but argues that this does not recompense him for the time that he spends serving customers.

He would like to install a hosepipe to the tap so that he can avoid the tap area becoming dirty. He is also engaged in a plan from the water office to grow nursery plants around the tap to keep the environment looking nice.

Vandalism has been a problem at his tap. Young people have broken the padlock on several occasions. The village leaders are trying to find who they are so they can be taken to the village leaders and the police post.

However he says that people don't complain about the price of water as before this project sometimes they had to pay 100-300 Tsh per bucket.

Appendix 2

Ramadhani Mollel (in his role as Chair of the WC)

'I joined the village council of Koboko in 1993 but left again in 1995 as my party (CCM) was not selected at that time. Another chance came for me and I joined the hamlet council as a 10-cell leader and then was elected to be chairman of the water committee when the project started. In Koboko there are six hamlets and they were told by the project that they should choose 10 committee members, so each hamlet had to choose 2 and then we had to select to get the final figure of 10. After the meeting we had to choose a chairman and I was selected. There is also a secretary- Mr Mram and a treasurer- Doris Mmari. You can see it is a democracy as there are 5 men and 5 women in this group. We hold 3 meetings per year and we had to organise the digging of trenches and then the selection of the tap attendants. We had to choose people that we knew would be honest and responsible. These people should also be loved by the people and be willing to volunteer.

At our last meeting the agenda was to discuss the attendants, the way they serve the people and to consider the cost of water that was passed by the board. We have to make sure that the price is that passed by the board and not otherwise.

When we have had our meeting we send our minutes to the Trust.

We have found that there are some attendants who are not loyal so the committee (they have not been paying the water office on time) so we told them to pay their debts and to make sure that they ask the price agreed (5Tsh). They should also ensure the cleanliness of the public taps.

When I go to the meetings of the board I present things about which we talked. We make suggestions such as to say where we should have more public taps or to report breakdowns. The trust calls four meetings per year.

Last year I took some opinions from the PTAs to say that the money they receive is too small, and so the commission was raised from 10 to 15%. We sent our thanks to the board for this increment.

I make a report to the VC meeting, the village office and to the annual general meeting of the village. However at the last meeting things were not so good. There is a financial dispute over the finance records of the village. Even the MP was there to see what was going on, but we had to cancel the meeting. It seems that some of the leaders had eaten the money.

It was a hard job to organise when we were digging the trenches as I had to organise the labour. At first the villagers didn't understand that this was their project as they thought that it was just for the Germans. It was very hard to convince them. Sometimes we had to use force and also to give education in the meetings. After this they have come to understand that the project is theirs and they did receive it then.

It is a good project and some they do love it because they know that it is theirs. But there is a percentage who don't love it because people are not the same and some have a habit of hating things. Also some people don't agree about the price as they think that this is just a business and not a service. There are also some who can't pay such as old women. We have one example of a public tap which gives water free to five old women and the bill is being taken care of by one of the people who lives around there.'

Appendix 3

Doris Mmari – elected representative- Treasurer of Water Committee

Doris Mmari is the elected treasurer of the village water committee. She is a Lutheran and Chagga. She is educated to secondary level and worked previously in government as a revenue collector. She now runs the Maurie Garden Bar in Koboko as on marriage her husband no longer wanted her to work, so he opened the bar for her,

She became involved in village politics on 1998 and she wanted to know what was going on in the council. She finished in 2004 as she was tired of that business but then people came and begged her to be a member of the water committee. She is also the secretary of the local CCM branch and of UWT (CCM's women's organisation). Before she left the village council they were told that they should form a water committee and that those who wanted to stand should write an application. There were 20 who applied so they called a general meeting and those who had applied were announced and the villagers had to choose. They were told to select one man and one woman from each hamlet. The people who were selected then went to a seminar with the trust and they were told what they should do as a hamlet water committee.

Next we had a meeting of all the members and chose who would take offices and she got the job of treasurer. They had been told that every water committee should have some sort of a budget. At first everyone who wanted a private connection should pay 1000Tsh to get the

forms and this would be allocated to the WC. We don't charge the institutions such as schools, hospitals and churches.

Those funds collected were used as allowances for meetings- each member got 1000 per meeting. They don't get any funds from the main water office. The chairman is the one who calls the meeting. At the last one we discussed the case of the debtors who have private taps.

Villagers are complaining that the charges are so high as they were used to getting free water but there is no other problem as water now comes frequently.

There has been a price rise in getting a private tap. Now it is 138,000Tsh (138 US\$) to connect a tap whereas before it was only 50,000Tsh. Before it was run by Germans but when they handed it over to Africans they raised the price. The WC sent a complaint to the trust but were told they had to raise the price to make sure that the project runs smoothly and to pay salaries.

As they are under the VC they have to tell them everything that arises. As part of their duties they go to visit the public taps and there they get a lot of complaints. There was one mentally disturbed villager who broke a public tap and we reported them to the office.

The official price of the water is 5Tsh at a public tap and 7sh from a private tap. It is more expensive at a private tap as some people were using this water to irrigate their gardens and they needed to stop this practice.

Sometimes you will see that the price at the tap is 10Tsh but this happens when the bucket is over 20l and so when the bucket is full to the top then they must pay 10Tsh. If people complain then the attendant will just hand in their keys and not open it anymore.

For those old women who can't pay the bill is sometimes being met by the attendant as when they sell at 10Tsh there is enough to cover the bill. People are also selling from private taps and sometimes they sell at 20Tsh per bucket.

Appendix 4

Appendix Koboko data collection

Data was collected in Kileuo by the local research team consisting of Ernest Msuya, Rhoda Mdee and Yusuphu Mfinanga from January-October 05. This incorporated a period of three months when Rhoda and Yusuphu were resident in the village.

Anna Toner visited the field on several occasions – Jan 05, Mar 05, Jun-Jul 05, Apr 06

Documents-

Mfangavo, C. (2005) General observations made during visits to the case studies

Mdee, R., & Mfinanga, Y. (2006) General observations on case studies

KfW (2005) Short report on Lawate-Fuka Water Supply Trust

LFWST (2005) Muhtasiri wa kikao Maalumu cha Bodi 19/1/05, 18/5/05

LFWST (2005) Quarterly Report 30/6/05

Koboko VC (2005) Muhtasiri wa kikao wa vilula area- Lawate 24/6/05

Persons interviewed on one or more occasions during fieldwork

Bertha Koda	University of Dar-es-Salaam
Michael Braasch	Project Manager, CEWS, Moshi
Doninick de Waal, Rehema Tukai	WaterAid
Management staff	Pamoja Trust
Gunnar Schnieder	KfW- Dar-es-Salaam
12 Life-history interview	Public Tap Attendants
12 Public tap surveys	
86 livelihood/water user interviews	
Koboko Village Chairman	
Koboko Village Executive Officer	
Ramadhani Mollel	Water Chairman/PTA