The impact of cost recovery and sharing system on water policy implementation and human right to water: a case of Ileje, Tanzania
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ABSTRACT

In Tanzania, the National Water Policy (NAWAPO) of 2002 clearly stipulates that access to water supply and sanitation is a right for every Tanzanian and that cost recovery is the foundation of sustainable service delivery. To meet these demands, water authorities have introduced cost recovery and a water sharing system. The overall objective of this study was to assess the impact of cost recovery and the sharing system on water policy implementation and human rights to water in four villages in the Ileje district. The specific objectives were: (1) to assess the impact of cost recovery and the sharing system on the availability of water to the poor, (2) to assess user willingness to pay for the services provided, (3) to assess community understanding on the issue of water as a human right, (4) to analyse the implications of the results in relation to policies on human rights to water and the effectiveness of the implementation of the national water policy at the grassroots, and (5) to establish the guidelines for water pricing in rural areas.

Questionnaires at water demand, water supply, ability and willingness to pay and revenue collection were the basis for data collection. While 36.7% of the population in the district had water supply coverage, more than 73,077 people of the total population of 115,996 still lacked access to clean and safe water and sanitation services in the Ileje district. The country’s rural water supply coverage is 49%. Seventy-nine percent of the interviewees in all four villages said that water availability in litres per household per day had decreased mainly due to high water pricing which did not consider the income of villagers. On the other hand, more than 85% of the villagers were not satisfied with the amount they were paying because the services were still poor. On the issue of human rights to water, more than 92% of the villagers know about their right to water and want it exercised by the government.

In all four villages, more than 78% of the interviewees are willing to pay for water provided that the tariffs are affordable. Water policy implementation continues slowly: regardless of the fact that more than five years have passed since policy inception, 60% of the villagers in Itumba still have no water services at all. The study shows that government fulfilment of human rights to water has a long way to go, especially in rural areas where people cannot afford to pay for water and some of the villages still depend on water from wells and seasonal rivers.

Key words | affordability, cost recovery, human right to water, water policy, willingness to pay

INTRODUCTION

Background to the study

The concept of Human Rights to Water means that access to clean drinking water is a fundamental human right supported by international law, declarations, and state practices. It does not quantify the amount in litres per person per day, noting that water use varies between cultures (CESCR 2000). In Tanzania, the National Water Policy clearly stipulates that access to water supply and sanitation services is a right to every Tanzanian and that cost recovery is the foundation of sustainable service delivery. Water services are the responsibility of the water supply and sanitation authorities (WSSAs), most of
which are self sufficient in covering running costs and all other necessary costs. To meet these demands, water authorities have introduced cost recovery and water sharing systems to their users.

Cost recovery for water services means recovering all of the costs associated with a water system, programme or service to ensure long-term sustainability. These costs are financial (operating costs, capital costs, cost of servicing capital), economic costs/benefits (lost value of water for other uses, gains from productive use, pollution created or alleviated) and support costs (institution building, human resources development, information systems, monitoring and assessment, regulation, planning and strategy development). Cost sharing means that portions of project or program costs are not borne by the government or any funding agency. It includes all contributions, including cash and in-kind, that a recipient makes to an award. Cost sharing stimulates the sense of ownership.

Ileje is one of the eight districts of the Mbeya region of Tanzania. The population of the Ileje district is approximately 110,194, and the average population growth rate is about 2.2% per annum (URT 2002). Rainfall availability ranges from 800 to 1200 mm per year and temperatures range from 14 °C during June and July to 25 °C during October and November (McKone 1993). The district has 16 wards, Itumba being the capital. Itumba has four villages, namely, Itumba, Mlale, Yenzebwe and Ilanga.

This study aimed at investigating the implementation of water policy under cost recovery and sharing system and its implication on human rights to water in Ileje district, in Tanzania. Specific objectives of the study were to: (1) assess the impact of cost recovery and sharing system on the availability of water to the poor, (2) assess their willingness to pay for the services provided, (3) assess the community understanding on the issue of water as a human right, (4) analyse the implications of the results in relation to policies on human rights to water and the effectiveness of the implementation of the national water policy at the grassroots and (5) establish the guidelines for water pricing in rural areas.

**METHODOLOGY**

This study involved four villages of Itumba ward in the Ileje district, namely Itumba, Mlale, Ilanga and Yenzebwe. This ward was chosen out of 16 wards because it has both urban characteristics (in Itumba village, which is the capital of the district) and rural characteristics (in Mlale, Ilanga and Yenzebwe). The purpose of this selection was to get participation by people of different economic levels. Based on a purposive sampling method, people with best attributes for the study were selected from all villages and water authority workers. Primary data were collected using 145 structured questionnaires, each with 30 questions, which collected information on the amount of water obtained by each household, be it piped or fetched from wells, rivers or boreholes, the amount of money paid by each household and if these households were able and willing to pay this amount of money for the amount of water supplied. Members of the households were asked about their understanding of water rights: if they were aware of the existence of such rights, their importance and the way these rights might be beneficial to them. These questionnaires were designed to see whether the national water policy was implemented effectively and therefore assist in the establishment of the proper guidelines for water pricing in rural areas.

Secondary data were collected from Itumba/Isongole Urban water supply on the amount of water supplied, demand, adequacy, water tariffs and revenue collection. Literature review on the current water situation in the area was also done. The review of national water policy was conducted to find the link between the international declarations on water as a human right and the national water policy in order to assess whether or not the water policy was effectively implemented at the grass roots level for citizens of Itumba ward in Ileje district. Because questionnaires were used as the main source of data, the analytical approach used was purely quantitative where data were subjected to numerical analyses such as number coding, frequency tables and other statistical inferences. The software called Statistical Package for Social Science (SPSS) and Excel, which run statistical descriptive and frequency analysis that gave more insight into the data, were used. This gave a variety of percentage presentations and histograms which provided the right illustrations to describe the results. When explaining results and discussions, a combination of information, i.e., from literature reviews and questionnaires, was employed.

**RESEARCH FINDINGS AND DISCUSSION**

**Water availability under cost recovery and sharing system**

**Water availability in Itumba village**

Water availability in Itumba village has decreased from 180 litres to 60 litres per household per day from 2002 to 2006.
mainly due to the increase in price of water from 400 TSh to 3,000 TSh for domestic users and 5,000 TSh for commercial users per month. This contrasts with the fact that more than 60% of the households’ income was below 1,200 TSh (1 USD) a day. At the same time, water demand from rapid population growth exceeded the capacity of the supply system.

Water availability in Mlale, Yenzebwe and Ilanga

In Mlale, water services were still under village water committee. This committee was responsible for overseeing and maintenance of the supply system. Each household was contributing 500 TSh per month, which was a substantial amount for maintenance and other small services. There was a shortage of water during dry season and the water supplied was of poor quality due to lack of treatment plant in the area. The situation in the two villages of Yenzebwe and Ilanga was worse because they depended on water fetched from nearby rivers of Malanzi and Chabu for Yenzebwe villagers and Ilanga and Isenga for Ilanga villagers. These are seasonal rivers which normally dry up during the season of no rainfall, leaving the villagers without water. There is a high prevalence of diarrhoea and other water borne diseases during the dry season in Yenzebwe and Ilanga villages. Villagers are forced to spend most of their time and income treating such diseases, which diverts them from income generating activities. The maximum number of cases of water borne diseases is in October, which is the peak dry month, forcing villagers to fetch water from unhygienic sources. More than 92% of the villagers interviewed in both of these villages declared that their right to water is not exercised because they have neither water supply system nor boreholes.

Seventy-nine percent of the villagers in Ilanga and Yenzebwe feel that water availability has deteriorated recently due to increased population depending on the same sources. The two villages have asked for a piped water system, but the Itumba/Isongole Urban water authority denied this service, insisting that the villages were out of their area of operation and that the cost of supplying water to these villages would be high, which the villages were not able to recover. In the two villages, villagers bear primary responsibility for protecting water sources, except for Itumba, where the management of water sources is left under the authority. The villagers did not think that it was their responsibility to protect water sources because they were paying the authority to do that. They lacked sense of ownership of water sources and, as a result, community participation in protecting water sources was poor. This led to severe deterioration of water sources and the environment at large, which was against NAWAPO (2002), which stresses the importance of water supply and sanitation services to be legally owned by the community, reasoning from the fact that water supply and sanitation facilities provided without the active participation of the beneficiaries in planning and management are often not properly operated and maintained and hence are unsustainable.

Willingness to pay

Willingness to pay: overall situation

Brikke & Rojas (2001) have earlier analysed the key factors for sustainable community-managed cost recovery. They found that willingness to pay is associated with the quality of services provided. The service efficiency is the direct outcome of appropriate management, an institutionalized management that networks with different stakeholders and considers their ability or willingness to take responsibility.

Figure 1 shows that, as the monthly water bill increases, willingness to pay by both connected and unconnected households in all villages decreases. This observation confirms the law of demand, i.e., demand for improved water services decreases as the monthly consumption charges increase (Herath 2006). Second, acceptance of the bill is higher among those who are currently not connected to piped water compared to those connected. This may be because unconnected villagers are eager to get connected and so they will be ready to pay any amount if they are assured of quality services.

Most of the water sources are unreliable and people normally don’t get water at all during the dry season. They also need to show that their commitment to pay for water is high so they should be considered for connection. The economic cost of water (through direct purchasing or time spent in collecting) for unconnected households is generally higher than that of people who have improved services. The general decrease in percentage for all connected and unconnected households in all villages decreases. This observation confirms the law of demand, i.e., demand for improved water services decreases as the monthly consumption charges increase (Herath 2006). Second, acceptance of the bill is higher among those who are currently not connected to piped water compared to those connected. This may be because unconnected villagers are eager to get connected and so they will be ready to pay any amount if they are assured of quality services.

- Figure 1: The ratio between proposed monthly bill in TSh and the percentage willingness to pay for domestic users in Yenzebwe, Ilanga and Mlale villages.
villagers, especially for increased amount to more than 3,000 TSh, might be due to income level. Villagers will always be ready to pay a certain amount of money for improved services if and only if that amount is within their ability to pay.

Water pricing and its impact in Itumba village

Water tariffs in Itumba were set depending on the type of users while taking into consideration the need to meet all the operational costs. This situation forces the villagers to pay more due to high operational costs. Water users are categorized as domestic, institutional and commercial purposes. Water users were not consulted in tariff setting; instead they were just informed of the amount they should pay. The authority, which is governed by the water board comprising ten members, decides what amount users must pay. After the authority took over in 2002, the price of water increased from 400 TSh to 1,500 TSh and soon was further raised to 3,000 TSh for domestic users and 6,000 TSh for commercial and institutional users per month. This caused a lot of misunderstandings between the villagers and the authority as the villagers were not willing to pay this amount of money. The villagers complained that, due to rapid population increase, the authority was supposed to expand the supply system and decrease the price of water to make sure that everyone had water instead of raising the price of water. More that 70% of the villagers interviewed think that what they pay was far higher than the amount of water supplied to their households.

There was a decrease in number of stand pipes under operation from 571 to 216 after the price increase from 1,500 TSh to 5,000 TSh per month in Itumba village. This was caused by the low income for most of the citizens in the village. Most of the villagers were forced to fetch water from their neighbours because their domestic and kiosks taps were removed due to payment failure. The situation was worsened by the fact that the number of customers who were willing to pay had lost hope because water availability deteriorated, especially during the dry season. Water fees collection was poor and did not meet operational costs, so services provided were also not satisfactory in terms of quality and quantity.

The study shows that 85% of the interviewees in Itumba were not satisfied with the services provided by the authority. There was a contradiction between the authority and water users in terms of payments. Users felt that what they paid was high while the services were still poor. On the other hand, the authority believed that the villagers must pay more to meet all the operational costs. In general, more than 85% of the villagers interviewed were willing to pay if and only if water services were improved in terms of quantity and quality throughout the year. Under the current situation, most of them were not willing to pay because of poor services.

Another factor which affected willingness to pay was poverty, because most of the villagers had low income which was not enough to meet their daily basic needs. These villagers felt that they could not afford the proposed monthly rate. Education level for most of the villagers was another problem as most of them were not aware of the need for cost recovery and the sharing system. Other villagers complained about the adequacy and reliability of water and were not willing to pay for services whose sustainability was compromised.

Human rights to water: community understanding and reaction

More than 92% of the interviewees in all villages knew that water is life and that it’s their right. They felt that their government was responsible to supply them with water and that responsibility should not be compromised. Morley (2002) says that poor people know that access to safe affordable water is their priority and governments have a duty to deliver, but governments are failing to respond. Of the 17 countries most in need of water for people, only two, Tanzania and Uganda, prioritized water in their Poverty Reduction Strategy Papers. Access to water becomes a legal entitlement around which people can express their demand, not as a need, but as a right backed up by laws and standards.

Burkina Faso, Zambia, Uganda, and South Africa are among several African countries that have stated the right to water explicitly in their national laws. In South Africa, people have successfully used this right to prevent disconnections for non-payment of their bills. The court used as a basis for its decision Section 27(1)(a) of the South African Constitution, which provides that everyone has the right of access to water. The disconnection of existing water supplies was a breach of people’s constitutional rights and the water supply was subsequently reinstated. Recognition of the human right to water and sanitation will accelerate progress and ensure that the least served with clean water will be better targeted by governments, nationally and internationally (Morley 2002).

Implementation of 2002 National Water Policy (NAWAPO) in rural areas

Different water problems which still exist at the grassroots level indicated that the 2002 National Water Policy is
neither understood nor well implemented. More than 90% of the interviewees did not know of the existence of 2002 National Water Policy and they regarded their water situation as still poor regardless of the existence of such policy. A district water supply coverage of 36.7% means that more than 73,077 people of the total population of 115,996 in Ileje district still lack access to clean and safe water and sanitation services. National Strategy for Growth and Reduction of Poverty (NSGRP 2005) indicates that the country’s rural water supply coverage is 55% while the 1991 water policy set a goal of providing clean and safe water to all the rural population within 400 metres from their households by the year 2002.

Also, in one of its Social Principles, NAWAPO (2002) recognizes that access to clean and safe water is a need and right for all human beings and that efficient management and equitable use of water in the rural areas will be promoted. It further stipulates that the use of water for consumption shall receive first priority. In the provision of water supply and sanitation services, water required to meet basic human needs shall be top priority. NAWAPO (2002) pointed out that investment priority shall be given to water scarce areas. But until 2002, more than 30% of the rural water schemes were not functioning properly (NAWAPO 2002). There were only 513 stand pipes existing in Itumba village (of which only 216 were operational) and 71 stand pipes in Mlale village, which in their totality accommodated more than 9,688 people, while more than 2,978 people in Yenzebwe and Ilanga villages did not have any access to either piped or borehole water. Lack of awareness of the 2002 National Water Policy might be one of the factors which hindered their efforts to fight for water rights. If these villagers were aware of the policy, they could use it as a tool to influence the government to supply them with water, as the policy recognizes that water is the right of every individual. Morley (2002) argues that keeping people informed can sometimes be half the battle.

In Kathmandu, a community living on squatted land heard about the General Comment 15 of 2002 on human rights to water and took it upon themselves to approach the Nepal Water Supply Corporation armed with a copy. The community had already demonstrated their ability to organize and had their own saving and credit scheme. This laid the ground that, together with an awareness of the right to water, resulted in the community having six standpipes installed in an informal settlement (Human Rights-Based Approach (HRBA 2005)). So, with reference to this example from Kathmandu, it was possible for the villages of Itumba to use water policy and UN General Comment 15 of the Committee on Economic, Social and Cultural Rights (CESCR) if they were aware of them, to petition the government and influence the fulfilment of their demand for water. Sometimes it was not necessary for villagers to have access to legal systems; the knowledge and perception around the right to water could provide a basis for social advocacy.

**Water tariff guidelines for rural areas**

Many people believed that water should be free. This was an especially powerful argument in cases where those who wished to exercise their right were poor. Because of the public health benefits attached to clean water, and because of the fact that the rural population is largely poor, governments of developing countries and non-profit development organizations have tirelessly attempted to bring water to rural areas at little cost to the users. But what has been the practical significance of this attempt; has it actually helped bring a reliable long term source of water to those who need it?

From the Kathmandu example and considering the income level for most of the villages in Tanzania, one needs to be careful when setting water tariff. Generally, setting the water tariff should consider different factors to ensure that every villager gets water. Tanga Urban Water Supply and Sewerage Authority (Tanga UWASA 2000) report of 2000 pointed out that tariffs should favour economic efficiency in the production and consumption of water. The cost of supplying water should be taken into account, which includes cost of water itself (i.e. purchasing water right, economic investment, costs of constructing production and distribution lines) and the operational and maintenance costs. This was possible and desired because it would ensure sustainability. But, regarding the situation that prevailed in Itumba, the government and other organizations/companies should assist on the initial construction costs especially in Yenzebwe and Ilanga villages in order to provide affordable water.

A single step transition to full cost recovery for water systems was almost impossible to imagine, much less to implement, in rural areas. Traditions of low prices, lack of familiarity with new technology, difficulties in collecting small fees economically, and social philosophy all work against it. This same situation was happening in Itumba ward as poor villagers were able to pay little by little and could only contribute labour during construction, and afterward the cost of water could be recovered slowly by the villagers themselves. This also posed the significance of the tariff to foster social equity by subsidizing low income groups, which in Itumba ward was a group of the poorest people who could not afford to pay for water at all. This
group consisted of the elderly, disabled and other disadvantaged groups whose count in Itumba was significant. Information dissemination to the customers and seminars for influential groups, leaders and beneficiaries would help create awareness. This would be crucial to inform the villagers on the importance of paying for water in order to ensure sustainability. In another way, tariffs set should be affordable to the citizens. Likewise, any attempt to introduce a cost recovery and sharing system should be undertaken within the normative framework of the right to water and General Comment 15. Contracting the profit-based authorities to supply water leads to expensive technology choices, failure to involve poor communities and treatment of water as an economic good at the expense of social and cultural considerations. This has resulted in lack of local ownership and accountability between citizens and providers of water, which ultimately does more harm than good.

Table 1 shows the proposed monthly rate for water charges in Itumba village as suggested by the villagers themselves. The differences of 1,000 TSh for commercial, domestic and institutional seemed to be small but meant a lot to water users as this was a monthly payment and it was continuous. The rates have considered willingness and ability to pay for most of the villagers considering their income levels and were proposed by the majority. This amount would not affect their willingness and ability to pay as most of the villagers were ready to pay more for improved services, while in Ilanga more than 70% of the villagers were cautious whether 500 TSh paid per month per household would be enough to cover for major maintenance once needed. They were of the opinion that the price should be increased to at least 1,000 TSh per month per household so that the village generates enough funds for maintenance. In Ilanga and Yenzebwe, the situation was worse. There was a need for construction of a water supply system or boreholes. The villagers’ willingness and ability to pay was 2,000 TSh flat rate considering their income levels. Special groups – the disabled, elderly and the poorest people who could not afford paying for water in Yenzebwe, Mlale, Itumba and Ilanga villages – required extra consideration in the form of subsidies.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The following conclusions were drawn from this study:

- In Mlale and Itumba, a certain percentage of the population has formal jobs in the government sector, a factor which makes them able to pay for water. Villagers of Ilanga and Yenzebwe still depended on subsistence farming, making them unable to pay for water.
- Community understanding on the issue of water as a human right was more than 92%, which shows that villagers were aware of their right to water. The community in Itumba suffered the shortage of water due to cost recovery system while in Yenzebwe and Ilanga there was no water supply system at all.
- Community in Mlale enjoyed reasonable cost sharing by paying 500 TSh per month per household; however, they feared water shortage once the system fails and requires major maintenance because the cash collected would not be enough to cover for any major maintenance.
- In all four villages, more than 78% of the domestic users were willing to pay for water provided that the tariffs were within their ability and that the services were improved.
- Water policy implementation continues slowly because, regardless of the fact that more than seven years have passed since its inception, still more than 60% of the villagers in Itumba ward had no reliable water services due to cost recovery. The study shows that human rights to water have a long way to go, especially in rural areas where people could not afford paying for water while some of the villages did not have water supply systems at all.

Recommendations

- The government spends millions of shillings every year, especially during the dry season, to treat water borne diseases in Itumba ward. The study recommends that these funds be channelled to provide the villagers with a sustainable water supply system in order to reduce and eradicate cases of water borne diseases and help young girls attend school.
Itumba/Isongole Urban Water Authority should improve its services in terms of quality and quantity and expand the supply system to cover a larger area in order to enhance and encourage villagers’ willingness to pay and revenue collection.

There should be an awareness campaign to raise villagers’ knowledge on willingness to pay to improve revenue collection.

The billing system should be reviewed, the price of water decreased and villagers given enough time to recover the cost slowly.

This study recommends that the villages with major water problems be identified and special attention given to them to help improve the water situation.

REFERENCES


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