

Community management of rural water supplies

by Michael Wood

Water supply works have been dominated in the recent past by construction targets. A new emphasis on community management will lead to sustainable water supplies.

A NUMBER OF components contribute to the community management of rural water supply schemes, and there are preconditions for these components to be effective.

The various aspects of community-managed water supplies will be examined with reference to a specific community in Ethiopia where the author worked on a rural water supply project for a number of years.

Why community management?

Most project proposals for rural water supply development in the South now insist that the people the projects are intended to serve should have a major say in how the water scheme is constructed and managed. This has come about because many rural water supplies that were built in the last decade are not operating anywhere near their intended capacity or are completely broken down.

For the South as a whole the figure of 40 per cent of systems not working is often quoted, but in some African countries up to 60 per cent of schemes are not operating.¹ There are many well-documented reasons for these premature failures, but one of the main reasons has been a lack of community involvement from the initial planning stage through to the construction and management of the completed system.

What happened?

One of the main reasons why communities were not involved was that during the International Drinking Water and Sanitation Decade, donors and governments wanted to build new water schemes that would serve the maximum number of people. This resulted in construction targets which were too ambitious and which were unsustainable when the government or donor tried to maintain them.

Both donors and recipient governments were committed to this target-

oriented approach to rural water supply, which seemed in particular to favour large-scale bilateral projects. It may have been politically expedient at the time, but in the long term it has proved in many cases to be counter-productive.

The evaluation of most bilateral water supply projects was based on construction targets, so the pressure was on implementing agencies and local government departments to construct more and more new systems regardless of how sustainable they would be in the long term.

Another reason why communities were not fully involved was the amount of time this participative approach needs. Project staff have to visit communities many times to establish a dialogue with community leaders and build a rapport with them. There are no short cuts to this process. Meetings have to be arranged and then re-arranged if enough people do not turn up, or if there is a cultural event taking place at the same time. Such meetings themselves take a long time, as it is often customary in traditional societies to let all those who want to have their say do so. Brevity is not a characteristic of these democracies!

In the past, the social side of rural water projects has been starved of resources, including properly trained staff and vehicles for them to use. The lion's share of the resources went on



Customers at the Dulecha distribution point pay 5 Ethiopian cents per 20-litre container to the attendant, centre top, who controls the tap.

construction, which was prestigious and high profile, compared to social science activities.

What is community management?

A water supply facility is 'community managed' when democratically elected representatives of the community make the decisions which affect the day-to-day running of the scheme and accept all responsibility for the facility.

This is easier to achieve if the initial request for an improved system comes from the community itself, and the chances of establishing a sense of ownership will be greater. In most bilateral aid projects, however, site selection has often been done at the regional or even national level, with communities not being informed until just before constructions starts. Community management could still be possible under this scenario if communities are given the opportunity to take part in important decisions, such as the siting of waterpoints and the management of the system after completion.

The following case study shows how the community management of a rural water supply system developed in the village of Dulecha in Sidamo Region, which is part of an ongoing rural water and sanitation project being carried out by the Water Resources Commission of the Transitional Government of Ethiopia, with support from the Canadian International Development Agency (CIDA).

Dulecha is a village of about 3000 people in the Rift Valley, about 300km south-east of the capital, Addis Ababa. Ten years ago community leaders asked for a borehole through the local *kebele* (village council), who applied to the Regional Planning Office. The request was channelled to the Ethiopian Water Works Construction Authority (EWWCA), which successfully drilled a 120m-deep borehole, and installed a motorized pump. A reservoir and distribution system were also built.

A water committee consisting of seven members, two of whom were women, was formed before construction began. The chairman of the *kebele* was also made chairman of the water committee, in order to give the committee the necessary power to manage the water system effectively. As chairmen of *kebeles* under the former Mengistu Regime had to be members of the Ethiopian Workers' Party, water committees formed during this time became quasi-political bodies.

Although the water committee mem-



Women are willing to pay for clean, accessible, water.

bers received no management training, they were advised on how much the water tariff should be, and told that 40 per cent of the money collected should be returned to the Water Supply and Sewerage Authority (WSSA), the government body that looks after maintenance, to offset any repair costs to the system.

The setting of a water tariff is an important part of any community-managed water scheme, particularly in the user-pay climate currently prevailing. In Ethiopia the tariff for motorized rural water supply schemes was set by the government about ten years ago at one birr (50 US cents) per 1000 litres. Water committees were advised by the WSSA that they should sell tickets to consumers to buy water at the rate of five cents (2.5 US cents) for every 20-litre container of water.

In Dulecha all the consumers were able to pay this amount, although some paid in kind in the form of maize cobs, eggs, or coffee cherries, which were then sold at the market by the waterpoint attendant. The money collected was forwarded to the treasurer of the water committee who, together with the secretary, used it to buy diesel and to pay the pump operator and the attendant.

The problem with collecting money for a public utility in rural Ethiopia is that there are very few rural banks where the funds can be safely depos-

ited, and banking is not yet an accepted practice in rural communities. Water tariff money is therefore kept in the homes of water committee members, and as the water committee chairman was chairman of the *kebele* too he had a lot of local power. During the previous regime some *kebele* officials, under the pretext of serving the rural masses, became corrupt and misused public funds. Such was the case in Dulecha, but the people were afraid to speak out. Following the overthrow of the Mengistu regime in May 1991 by the Revolutionary Democratic Front of the People of Ethiopia (RDFPE), the Ethiopian Workers' Party and all mass organizations were dissolved. Corrupt former officials were then exposed by the people in the period which followed the take-over.

A new start

In Dulecha, as in many communities with motorized water pumping systems, the corrupt members of the water committee were exposed by the community, who reported the matter to the WSSA regional office. A Community Participation Assistant (CPA) was then assigned to help the community to reform the water committee and an election was organized at which a new water committee was elected. They were then trained to manage the system.



WHOM: Crozet

Communities should decide the rules that govern their water supply; families could store some water at home, for example, if the system could cope with the demand.

This training was given in the village and adjacent to the pump site. It was split into two half-day sessions so that women members could attend, and consisted of:

- keeping simple but accurate financial records relating to income from the water tariff, and the expenses incurred in running the system;
- keeping records of maintenance carried out on various parts of the water system;
- providing job descriptions for pump operators and waterpoint attendants and supplying criteria to help to identify suitable candidates;
- technical training for the pump operator to carry out routine preventive maintenance tasks; and
- advice on keeping the area around the collection points fenced, clean, and well drained.

A set of guidelines to help the committee in managing the system was given to the chairman.

Back-up

The water supply system in Dulecha is now being run efficiently by the water committee. Their main concern of late has been the difficulty of getting enough diesel and transporting it to the village, now that transport costs in Ethiopia have increased dramatically.

They are also finding it difficult to balance their books, because the water

tariff has been frozen for the last ten years while the costs of operating the system have escalated. A revision of the tariff structure is being considered by WSSA, and a new one is expected this year.

An accountant from WSSA makes periodic visits to the community to help iron out any problems and to check up on the financial records. The 40 per cent of the tariff money is not being returned to WSSA as the community prefers to do its own maintenance, although no major breakdown has yet occurred.

The case of Dulecha raises some important points about the community management of rural water supplies and the formation of water committees.

- Should water committees be quasi-political bodies?
- How can the collection of public funds be safeguarded?
- In remote rural areas, should water committees be given the mandate to get repairs carried out privately?
- What kind of training do water committees need to be able to function effectively?
- What role should government play in the community management of water supplies?

Political or not?

The answer to the question of whether water committees should include local

political leaders depends on the political system of the country and the character of the officials themselves. In Ethiopia, which has a history of top-down authoritarian rule, the only way for water committees to have any power to act decisively was to be formed through the local *kebele* system, where the chairman of the *kebele* became the chairman of the water committee.

The alternative is for the *kebele* chairman to delegate power to the water committee, though up to now this has been a rare occurrence. In any case, in many rural communities the same people tend to be on all the local committees. The disadvantage of quasi-political committees is that if the government changes or the *kebele* chairman is removed from office, the water committee tends to dissolve.

Role of government

From experience in several African countries, there is a strong argument for governments to restrict themselves to a regulatory or supervisory role when it comes to the construction and maintenance of rural water and sanitation services. Bureaucratically top-heavy government parastatals may not be the best bodies to deliver such services to remote rural areas, and in most cases they are certainly not in a position to maintain these services,

even if they do have that mandate. In fact, many government agencies are struggling to maintain services in the urban areas, never mind the rural ones.

In many African countries there is a growing trend to involve the private sector in the construction and maintenance of rural water facilities. An increasing number of NGOs are also becoming involved in these activities.

What private operators and NGOs increasingly need are practical guidelines to help them to maintain standards at each stage of the project cycle. Such guidelines should also contain standard designs for a variety of rural water supply applications, such as spring protection, shallow wells, or gravity systems. Guidelines should also stress the type of hardware that is acceptable so that standardization is eventually achieved. This would cut down on the museum of pumping equipment currently adorning the African rural landscape.

In a move designed to ensure greater sustainability of rural water supplies in the southern regions of Ethiopia, the WSSA has recently written a WSSA-Community Agreement, which spells out each group's roles and responsibilities at each stage of the project cycle from pre-planning through construction to management of the completed system. This Agreement is explained to community leaders at the pre-planning stage. They must sign it before any further action is taken. This reduces the number of surprises to either side in this partnership arrangement.

There are about 40 NGOs operating in the rural water supply and sanitation sector in Ethiopia.² Until recently there had been no guidelines for these organizations to follow in the construction and management of rural water supplies, but now the Water Resources Commission is producing a set of guidelines for NGOs to follow. These guidelines were initiated by WSSA and then modified by the NGO community to make them more practical and less bureaucratic. Because NGOs are often closer to the grassroots and operate in smaller geographic areas, they are in a better position than government agencies to help communities to construct water systems that they themselves can manage.

In Ethiopia, as in many African countries, a government agency is mandated to repair and maintain all rural water supplies, but this is often an impossible task. Now more communities in rural Ethiopia, especially those in remote areas, are taking it upon themselves to repair their own pumps or pipelines by paying local

artisans to do the job. Such artisans are able to repair most of the common above-ground faults, but the WSSA maintenance crews are still required to do pump pull-outs and major engine overhauls.

With the advent of the Afridev handpump in Ethiopia, the community management of handpumps is now a realistic concept, provided the problem of the availability of spare parts is solved. In the southern regions, water committees are now being trained to manage handpump systems. An important element here is the introduction of a handpump tariff, which is currently set at 25 cents (12.5 US cents) per household per month. It is left up to the water committee to decide how this should be collected. Sometimes communities with relatively easy access to alternative sources may abandon the handpump if they have to pay to use it, but there has been no problem collecting the money in areas where the handpump is much closer than traditional sources.

In summary the key points in the community management of rural water supplies are:

- The community must need the system.
- The water committee must be al-

lowed to really manage the system, including making its own mistakes initially.

- Water committees must be democratically elected and properly trained on site.
- Outside agencies should provide adequate back-up support and then gradually withdraw.
- An affordable but realistic tariff structure has to be in place.
- Standard equipment should be installed.
- Pump operators must be properly trained and equipped with the right tools.
- Spare parts must be available locally at reasonable cost.
- There should be an outside agency, either governmental or an NGO, to provide back-up repair services at an affordable price. ●

References

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2. UNICEF-NGO WATSAN Survey 1991, UNICEF, Addis Ababa, Ethiopia.

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This system has been developed with the financial support originally of the *European Commission* and lately of the *UK Overseas Development Administration*.

Interested parties should write as soon as possible, giving details of their status and experience, to:-

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