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PARTICIPATION IN RURAL WATER SUPPLY - THE MALAWI EXPERIENCE

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1. INTRODUCTION

It is generally accepted that community participation in water supply projects greatly strengthens the community's commitment to the supply and encourages better operation and maintenance. During the past fourteen years, Malawi has made remarkable progress in the provision of potable water to its rural population. It has been estimated that by 1980, 50% of the country's rural population had access to a water supply service (1). This has been achieved through three programmes, Boreholes, Wells and Gravity Fed Piped Water Schemes. The Wells and Piped Water Programmes have been implemented through self-help and an element of community participation has just been introduced in the Borehole Programme.

The purpose of this paper is to briefly describe Malawi's experience with community participation in the Gravity Fed Piped Water Programme. The paper is based on the experience I have gained by participating in two surveys. The first one was a survey of all funded water programmes by the Christian Service Committee of the Churches in Malawi (CSC) which included 8 piped water schemes throughout the country. The second survey was carried out by the Centre for Social Research in the Zomba East Piped Water Scheme which was aimed at finding the socio-economic impact of the project on the people. Both these surveys looked at several aspects including water collection and water use, quantity and quality of the water, repair, maintenance and up-keep, economic benefits and community participation. In this paper only one aspect, community participation, will be considered.

Historical Background

The first ever piped water scheme was started in 1968 by the Department of Community Development in the Chingale area of Zomba District. The area had been designated as a Community Development Project area and staff from the Department, including an engineer, were posted to the area to assist the local people in identifying possible community construction projects. From discussions with the local population, it became clear that one of the major problems the community was facing was water supply.

The traditional sources of water, unprotected hand-dug wells dried up during the dry season and women had to walk long distances to fetch water. However, there is within the area, a stream which had water on the slopes of the mountain all the year round.

Led by the community leaders, the engineer went to the slopes of the mountain and found that there was enough water in the stream to supply people living in the valley with clean tap water. A proposal was put to the local leaders to the effect that Government would assist the people to instal a piped water scheme in the area provided that the people agreed to dig the trench. A few days later, a public meeting was convened at which the proposal was made known to the community and reluctantly, the people agreed to the proposal. In 1969, the Chingale Piped Water Project was completed at a cost of about US \$6,000 (\$2 per person). The people themselves had dug 25 km of trench, laid the pipes, backfilled the trench and installed 25 stand pipes. This project is still working today and is being operated and maintained by the people with some assistance from the Government (2).

This was the beginning of one of the most interesting Community Development Projects in the country. By 1982, over 640,000 people in Malawi's rural areas were being served by 4,160 village taps which they themselves had installed after digging and laying over 3,000 km of trench line. All this has been achieved at an average cost of only \$5.00 per head of population (3).

The over 33 projects that have been installed range from small projects covering only one village with only six taps to large schemes involving over 100,000 people and 800 stand pipes. A small project might take only a few months to complete while large projects can take up to four years of construction.

We will look at the role the community plays in piped water schemes at two stages, the construction stage and the maintenance stage.

II. THE ROLE OF THE COMMUNITY DURING CONSTRUCTION

In the early years of piped water schemes in the country, the principal motivating force was the Government which took the initiative by inviting the community to participate. However, the Government made sure that the Community got involved at an early stage. Thus as soon as a project has been announced in an area and the community agreed to take part, a Project Committee is elected at a public meeting to supervise the work. Once a pilot project is successfully completed in an area "it becomes a potent advertisement for the programme and thus genuine popular demand becomes the principal motivating force" (2). Today most of the schemes are started at the request of local leaders through the District Development Committees.

The value of the local community input in rural piped water schemes has been estimated at 30 per cent of total construction and maintenance costs. The local people are responsible for marking the pipelines, clearing temporary access roads to storage tank sites, digging the trenches, excavating tank sites, loading and unloading pipes, collecting local materials, laying the pipes, back-filling the trenches and planting grass to mark completed pipelines. They do all this so that in the end they can have clean tap water near their homes for which they do not have to pay.

To carry out such work successfully a high degree of organisation is required at the community level. The role of the community organisation is to set up and maintain the self-help labour programme. Table 1 gives the organisational structure for a major project and related levels of project (Government) Organisation. The success of any project depends upon the authority of the various committees. This authority is derived from the local leadership i.e. the Chief and Malawi Congress Party leaders and not from the project staff who are there to provide technical expertise and to advise the local committees. Each committee has distinct responsibilities:

The Main Project Committee

The Main Project Committee is responsible for the overall management of the self-help programme. The initial work programme is organised by this committee and is also responsible for setting up the main line trench digging programme.

Section Committees

Villages involved in one section of the pipeline elect a Committee whose immediate

task is to draw up a daily programme of villages to work on the trench. The committee is provided with a list of villages and populations so that a balanced work programme can be made. Committee members supervise the trench digging on rotational basis. If any problems arise regarding the progress of the work, the committee calls a public meeting where such problems are discussed and if this committee fails to solve the problem it is referred to the Main Committee.

Branch Committees

Once the digging and back-filling of the main line is completed, the main committee meets to call upon the villages of each branch line to form Branch Committees which are responsible for organising labour on branch lines.

Village Committees

The Village Committee is responsible for supervising the village labour on its appointed day of work and for ensuring that village attendance is maintained. It is also responsible for selecting the sites for all standpipes in the village.

III THE ROLE OF THE COMMUNITY IN MAINTENANCE, REPAIR AND UP-KEEP

Community involvement as described in II above is expected to make the people feel the project is theirs and that they will take care of it. In the two surveys, respondents were asked the question "to whom does the water supply belong?" In the Zomba East Survey, 60% of respondents said it belonged to the community while 29.5% said it belonged to the Government. In the Nationwide Survey by CSC, 83% of the respondents said the Scheme was theirs and only 9.6% said it belonged to the Government (4). It should be pointed out that the CSC Survey included a number of schemes in the Northern and Central Regions which had been completed several years back and whose maintenance was completely in the hands of the local people unlike Zomba East which at the time of the evaluation was not fully completed.

In an evaluation of the Wangiongombe North Water Supply Project (NWSP), Tanzania, by the Bureau of Resource Assessment and Land Use Planning, a similar question was asked. In this survey, 89% of respondents said the Government was responsible for the project and only 2% said the village. The authors of the report observe that the people's participation is "reduced to manual labour... villagers do not know how the water schemes function and in case of breakdown it is only the experts from the headquarters who can

do the repairs" (5).

The situation in Malawi is certainly different from that observed in Tanzania. Not only that people have some knowledge of how the system works but also, a big part of maintenance work is done by local people.

Prior to 1980, the maintenance of completed schemes was completely in the hands of the local people. For each completed project, a few people were given training in repair and maintenance and these people were responsible for overall maintenance of the scheme. At the local tap level, the tap committee was given responsibility for the replacement of a damaged tap head, repair of apron, drain and soakaway. The Government only provided materials such as tools, pipes and fittings and the community was responsible for the purchase of a tap head.

It was revealed during the CSC evaluation that this arrangement was not completely successful. The main problems observed were:

(a) spare parts were not readily available to people who were given responsibility for maintenance. In some cases, several weeks could pass before the Government could send the necessary materials especially for schemes in the Centre and North.

(b) the system relied too much on individuals which meant that if they happened to leave the community temporarily or permanently, the scheme would have nobody to maintain during their period of absence.

(c) tap committees which were responsible for maintenance at tap level were found to be inactive.

In an effort to solve problems, a new system was introduced in 1980. Under this system, the Government has employed monitoring assistants responsible for overseeing about 200 taps each. The duty of the monitoring assistant is to monitor the functioning of the scheme and advise repair teams, which have also been introduced. One person from each village is appointed by the village headman to be trained by the DLVW in simple maintenance like joining PVC pipes, repairing breaks in the line as well as cleaning the tank. All people thus trained coming from villages served by a branch line form the "Repair Team" for that branch with a Chairman who keeps the spares. These teams are responsible for the maintenance of the Scheme while the tap level maintenance still

remain a responsibility of the tap committees. The Teams are supposed to work closely with the tap committees and members of the general community. Each member of the community is supposed to report to the team member any faults he/she notices in the scheme.

The Functioning of the New Maintenance System in Zomba East

The new system of maintenance is fully established in Zomba East Project. One of the aspects we looked into during the Survey was to determine the quality of community participation in the maintenance. At the tap level the problem observed in the CSC evaluation still remains. Committees are active just after the tap has been installed but die soon after as some members of the committee leave the area and are not replaced while others become disinterested. In spite of this the standard of up-keep in Zomba East was found to be very high but this is more as a result of the work of a few key individuals than that of the community. Vandalism in the scheme is non-existent.

Formation of Repair Teams in Zomba East was completed by April, 1981 and the Survey was carried out in August 1981. In our Survey, people were asked whether they had ever heard of a repair team and if so who the members of the team were. As shown in Table 1 below, about 62% of those interviewed had never heard of a repair team.

Table 1 Have you ever heard of a Repair Team?

<u>Area</u>	<u>Total No. of Hh's</u>	<u>Yes %</u>	<u>No %</u>
ZA.E.North	180	38.89	61.11
ZA.E.South	176	37.5	62.5
All ZA.E.	356	38.2	61.8

Source: Water by the People p.35.

In another question, respondents were asked what action they took the last time they realised there was no water at the tap. The majority (81%) said they did nothing and just went to draw water from the traditional source. The majority thought that whenever there was no water, the tank was being cleaned. One would expect that if the tank is to be cleaned, not only should the community be informed but that they should take part. "... we fail to see how the community can be expected to cooperate with the Tap Committee or Repair Team when they do not know the members of the Committee or the Team are. We feel

that if the community is to take charge of the maintenance of the Scheme, their continued participation in the affairs of the project is important....involving the community in all major decisions concerning the project like what rules are to be introduced, who is to be trained as a member of the repair team, who is to be a member of the tap Committee, etc might not be the quickest way of doing things but it is the surest way of ensuring proper future maintenance and care of the Scheme" (Water by the People p 44).

Efforts are now being made to involve the people more and steps are being taken to keep tap Committees active.

IV CONCLUSION

Despite the weaknesses pointed out through the Zomba East Evaluation on Community Participation in maintenance, Malawi's experience in this field could be of interest to other countries. By 1982 about 33 piped water schemes of varying sizes had been installed throughout the country. There are a number of factors that have contributed to the relative success of the programme in Malawi. The following are, in my opinion, the most important:

(1) A Long History of Self-Help

The people in Malawi have had a long history of self-help which has constantly been encouraged by both the Government and the Party.

For example the construction of primary school classroom block and teachers' houses has always been the responsibility of the local community. Other community construction projects on self-help have included things like postal agencies, health units, roads and bridges. The creation of District Development Committees, Area Action Groups, Village Development Committees and the introduction of Youth Week have all helped to enhance the spirit of "help yourselves" among the people.

It was, therefore, not strange to the population to be called upon to participate in the improvement of their water supply.

(2) The Evolution of the Programme

The piped water programme in Malawi has grown through a cautious approach. Local people are always suspicious of new ideas. Although local leaders had agreed to the proposal for a piped water scheme in Chingale, they were not convinced that water would ever flow through taps in their villages. This first project was small

enough as to be completed within a relatively short period.

A year after the Chingale project was started, a much bigger project was started at Chambe in Mulanje District. The project was designed to serve 30,000 people in 60 villages through 180 stand pipes. Before the actual digging of the project started, local leaders were taken to Chingale to see the completed work people of this area had done. Work at Chambe got off to an enthusiastic start with all villages digging the main line and as work started on the branch lines, the initial enthusiasm started to wane.

People began to doubt as to whether they would ever have piped water in their villages. Rumours began to spread to the effect that Government planned to take land from the people and establish estates once piped water had been installed. The people completely stopped going to dig the trench. Although the project was eventually completed after people's fears had been allayed, important lessons were learned. There was a credibility gap between what the local leaders had seen at Chingale and what they were able to convey to the people. The people were asked to make "an act of faith" by committing their labour for a cause whose motives they doubted. A smaller project would have been much more appropriate (2).

One of the most important outcomes arising out of the problems faced at Chambe is that no major project was introduced in a new area before the Government could demonstrate that piped water was possible through a small project. Thus each time the programme was to be introduced in an area for the first time, a sort of pilot scheme would first be installed.

(3) Genuine Popular Demand

The programme, which started through Government initiative has great appeal to the population. Before piped water schemes were known throughout the country, local people nearly always asked for a borehole whenever they had a water problem. These days the demand is for piped water. The people ask for these schemes knowing fully well what is expected of them.

(4) Proper Community Organisation

Another reason for the success of self-help piped water schemes in Malawi is the high level of organisation that has evolved in which both the Party and Traditional Leadership are used. Government officials have no direct contact with the community except through the leaders and the Committees.

(5) Controlled Growth of the Programme

Lastly, the rural piped water programme has grown or rather evolved, through a small non-technical Department of Community Development. With one engineer, and a number of multi-purpose Community Development Assistants, the Department could embark on only one major project and a few smaller ones at any one time". After the first pilot projects in the South, requests from District Development Committees in other parts of the country were expressions of general community interest rather than genuine popular demand. It was clearly beyond the resources of the Water Projects Section of the Department to embark on numerous pilot projects all over the country. With insufficient supervision, such projects would have been excessively prone to failure, and even if, by good fortune many succeeded, the resulting popular demand would have been politically impossible to resist and yet beyond the capacity of the Department to satisfy. The decision to select a few focal areas for the expansion of the programme ensured adequate supervision and limited the stimulation of popular demand to an acceptable rate" (Glennie, 1979, 41).

The above five factors have been crucial in the success of the programme in Malawi. The first one might not be applicable to all countries in Africa and it would be difficult for a government which has been doing everything for the people to say that they have to provide free labour for water supply projects. The "Philosophy" of self-help has to apply to all aspects of rural development if it is to be successful and not just to one sector.

I will conclude this paper by adding a word of caution to the Department of Lands, Valuation and Water. Self-help piped water as well as the Wells Programme grew out of Community Development, a non-technical department which had very limited resources. Both these activities have moved into a technical department which has relatively more resources in terms of personnel and finance. Piped water schemes should not only be looked at from the technical aspect to the neglect of the vital element in the success of the programme so far, genuine community involvement. Neither should the community be looked at just as a source of cheap labour, however important this might be in itself. The aim of community participation should be to give chance to the people to play a role in shaping their own future, give them personal dignity, self-confidence and a sense of responsibility (6).

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