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## **Organisation and participation in rural water supplies programme in Ghana**

**ABSTRACT** - Borehole water supplies have been popularised in some rural communities. Success is achievable where effective operation and maintenance of the schemes can be demonstrated to the local people; who in turn will identify activities in which they can meaningfully participate. Better returns on the investments is aimed at through adoption of national maintenance programme and rehabilitation of old schemes.

### **INTRODUCTION**

Organisation and participation in borehole water supply schemes in Ghana have passed through various phases during the past few decades. A brief review, illustrated by selected schemes, is presented and participation by the beneficiaries at the village level is also highlighted.

Government sponsored schemes such as well sinking, pond digging, construction of infiltration galleries and collector wells, were first embarked on, as rural water development, in the colonial period through the Geological Survey Department. Sites were selected by geologists, as part of their routine reconnaissance and the schemes were carried out by community participation, equipment were sometimes provided.

With the attainment of Independence in 1957, a Water Supplies Division (WSD) was established under the Ministry of Works and Housing, and an active borehole drilling unit was set up. Several thousand boreholes were constructed, and equipped with mechanical and hand pumps, for community water supplies.

The old time well sinking teams were however retained, but with the glamour of newly introduced boreholes, which were more quickly completed and easier to operate, interest dwindled in the well sinking programme.

Based on a report on water resources sector studies in 1970, it became government policy that it is more economical to provide all rural communities with boreholes equipped with hand pumps. Since then many more schemes have been carried out by the Ghana Water and Sewerage Corporation (GWSC) under national development programme.

It is a sad commentary however to find most of these schemes malfunction or have fallen into disuse. This is mainly due to lack of spare parts, non-provision of fuel and lubricants, inadequate operation and absence of maintenance. Trained operators have left their posts and management attitude is luke-warm.

Still faced with enormous rural water supply problems and realising that government efforts alone could not yield any meaningful impact, foreign financial and technical assistance was sought in the realisation of two regional drilling programmes; this time incorporating full scale maintenance facilities.

A water utilisation component was added on to the programmes to assess the impact of the new schemes on the socio-economic lives of the rural people.

No doubt, these programmes have been successful and five years after their completion, over 90% of the pumps are working in the field. Borehole supplies have become popular in the rural areas. Effective operation and maintenance have resulted in less breakdown time.

In the past few years, a number of church organisations, private institutions and individuals have sponsored a number of boreholes, in different parts of the country.

### Borehole and handpump maintenance

In view of the various schemes implemented by different organisations, it has been necessary to adopt a national maintenance programme within the GWSC. Nevertheless, one church organisation, which installed 300 boreholes in four widely separated regions has opted to set up their own maintenance system.

This idea became immediately controversial in that the church organisation felt that, with a burden on the GWSC, and therefore on government, their boreholes will not be adequately serviced. On the other hand, the GWSC felt that as a matter of national responsibility (if not for sentimental reasons) they were better equipped and sufficiently experienced to add on these few hundred boreholes to the thousands that are being maintained by them.

The GNSC might be right in a sense too, that in view of past experience with local authorities, which could not cope with the maintenance of their own schemes, they would be forced by government to eventually go to their aid.

#### Rehabilitation of existing schemes

Indeed a number of old schemes malfunction or have fallen into disuse. It was time a national survey was carried out to determine the state of affairs and what measures were possible. For it is very disturbing whilst one is on a new programme, to come across existing boreholes with apparently minor problems, which if remedied would save a whole new investment.

Some attempt has been made in recent years, to include the rehabilitation of such boreholes in on-going programmes. The GNSC have recently rehabilitated some few boreholes, not on programme basis, but rather at times when they had less new development jobs on their hands or only as a means of redeploying idle men and equipment.

#### Local participation in programmes

It is desirable that the local people who benefit from projects should be involved in policy making, implementation, operation and maintenance of the schemes. This theme is often harped on, without clearly defining the nature of participation expected of the people.

In Ghana, today, where by policy the drilled hole is preferred against the dug well, the local people are automatically precluded from participating in the drilling and constructional phase of borehole schemes, due to the sheer technical nature of the operation.

With time the people themselves have identified activities in which they can effectively participate. In the church sponsored projects, foreign cost components are borne by the church and the community bears all local costs. The initial commitment to have a borehole is made by the whole village. Discussions as to the number of boreholes required, population to be served and distribution of boreholes in the village are generally left in the hands of the local chief, elders and opinion leaders in the community.

A water committee is formed - usually insisting on the inclusion of women. In some communities, adult population census is first taken from which is derived the economic status of each household. Rates to be paid by individual households are determined and the committee is charged with mobilisation of the local funds. For example brewers of local beer and those who use a lot of water are made to pay commercial rates.

The committee also fixes hours of operation for different sections of the village. They appoint pump caretakers and supervise the proper use of the sites by organising periodic site maintenance and development.

Initially the villagers only volunteered to provide materials and labour for back-filling of areas around the pumps.

Through adult education and community campaigns, they participated in the construction of extended concrete pads around the boreholes heads to improve sanitation. Later the exercise was extended to include the relocation of animal water holes away from the pumps.

Sometimes inputs were provided under the government sponsored water utilisation programme, which was designed to ensure that the burden of maintenance of hand-pumps could be passed to the villagers themselves. Hence the people were trained to carry out simple hand pump maintenance and repairs.

The stage is now reached where the local people are now aware of the benefits of good water supply in promoting personal hygiene and good health. Some of them now use groundwater in supporting live-stock production and in some cases dry season vegetable gardening.

Till now government sponsored schemes are free of charge to the people. Only recently has there been a draft legislation to consider monthly rates to be charged for the maintenance of schemes.

The ability of the local people to participate in their own schemes is now clearly demonstrated. They are now ready to make sacrifices towards project implementation. However it is only in cases where it is difficult to raise the initial capital, that the local authority or the church comes to their aid.

There is the case of a community which had already contributed and paid money for a borehole to the GNSC, for over three years; and when asked to contribute new funds for a borehole for which the drilling equipment was on site, they refused to contribute any more money, but reprimanded the water committee and asked them to retrieve the bad debt.

There is the other case of a community which just could not afford the cost of a borehole and therefore proposed an instalment plan. Meanwhile in another community the people had pledged their farm produce to the local commercial bank to raise money.

**CONCLUSION**

Nothing more clearly indicated the awareness of the local people in organising and participating in their own water supply than to be invited to the commissioning ceremony of a borehole water supply project and to see the hand pumps under different kinds of locking mechanisms - sometimes with fence walls - all in effort to safeguard the new investment.