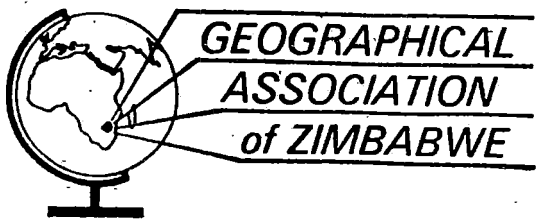


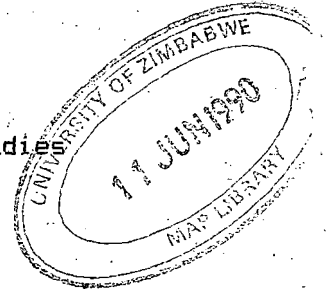


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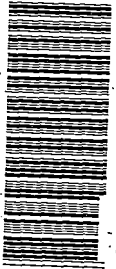


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* Authors alone are responsible for the views expressed in GEM *

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by

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INTRODUCTION

The need for safe and adequate water by all human beings is well recognised. However, a close examination of the accessibility, adequacy and the quality of water for the people of developing countries reveals a very sad story. In 1980 it was estimated that about 70% of the people in developing countries had no reasonable access to safe and adequate water supply. This means that even today, over half of humankind lacks one of the basic requirements for life. The term "reasonable access" means that a disproportionate time of those who draw water should not be spent fetching water, and "safe water" should be free of pathogenes.

Having realised the plight of the rural population in developing countries, the world community through the United Nations in 1970 aimed at providing reasonably accessible and safe water to 25% of the rural population by 1980. In 1978 the UN Conference on Water emphasised the importance of safe water supply and sanitation in controlling diseases such as diarrheas, typhoid, cholera, infectious hepatitis, etc. During the thirty-fifth session of the UN General Assembly in November 1980, the period 1981-1990 was declared the International Drinking Water Supply and Sanitation Decade (IDWSSD). All the member countries committed themselves to improving the water supply and sanitation services so that by 1990 the Decade target of water supply for all will be achieved.

The UN agencies, most governments and non-governmental organisations have made some effort to improve the water supply and sanitation of people in developing countries. Despite these efforts it has been observed that about one-third of all the new water supply systems are not working at all, and another third are working ineffectively or intermittently. Although the types of technical facilities provided are partly to blame, the users are also to blame. Even the best designed hand pump can always be abused. Thus the attitude of the users plays a very crucial role in the successful operation of the water supply scheme. Most of these water supply schemes have been initiated and installed by agencies without the users having been consulted as to why, what, where and how these facilities will be operated. After having realised the short-comings of such an approach, a new approach which emphasises the participation of users in the planning and implementation of development projects is now recommended.

In order for all the countries to achieve the IDWSSD objectives an investment of about US\$300 thousand million in water and sanitation is required. In view of the financial hardships which most developing countries are facing such an investment may not be possible. Therefore the costs have to be minimised if any meaningful progress is to be made. This can be achieved by utilising the labour resources which are often abundant in most developing countries, that is involvement of the community in the implementation of water supply and sanitation projects.

It has also been observed that the provision of safe water does not necessarily result in the improvement of the health of the people. Personal hygiene has not improved and as a result people come into contact with contaminated water through other channels of disease transmission.

WHAT IS COMMUNITY PARTICIPATION?

The term community participation has been used to describe widely varying activities, some of which at best can be described as slave-labour. For those projects which aim at socio-economic development, community participation can take various forms which will depend on the culture, politics, and the general level of socio-economic development. The type of project being implemented can determine the ways in which a community can participate.

There are three attributes which are now commonly regarded as being fundamental for any participatory activity to be regarded as being community based. Firstly the community should be involved in determining what should be done, how, and where it should be done. In other words the community should be involved in identifying their problem. Secondly, during the implementation of the project, the community should, if possible, make some contribution which can be in the form of finance, labour or materials. Finally the whole community should share the benefits of the project. If the community passively accepts a project or just contributes physically by providing labour without being involved in the decision-making process, this cannot be regarded as community participation. Thus community participation is both a mental and a physical process.

THE BENEFITS AND DRAWBACKS

The benefits of the participation of the community in rural water supply are:

- 1) The identification by the community of water as being their problem will mean that they will be committed to solving the problem of water supply.
- 2) The involvement in the design of water supply facilities is likely to lead to technically appropriate facilities.
- 3) The provision of inputs by the community shows commitment.
- 4) Community participation in water supply will lead to the motivation of the community.
- 5) Participation encourages the community to identify itself with the water supply system and this will lead to less abuse and therefore better and cheaper maintenance.
- 6) Participation will act as a catalyst for other development activities.

The drawbacks often given are:

- 1) Participation can result in poor technical standards of construction and consequently frequent breakdowns.

- 2) Community participation can cause inefficiencies during implementation.

The results of studies done in several African countries do greatly substantiate the above stated benefits.

HOW CAN THE COMMUNITY PARTICIPATE IN RURAL WATER SUPPLY?

It is suggested that the community should participate at all the stages of implementing a water supply project.

At the beginning there is a need to identify the problems with the existing facilities. The problems may not be apparent to the community and therefore some form of education may be necessary. In some areas the water is plentiful but unsafe, and the community does not know the relationship between some diseases which may be common amongst them and the unsafe water. Village health workers may have to be used to educate such communities. There are also cases whereby the community is aware of the problems, such as unreliable water supply systems, but they do not know what to do. Again, some form of education on the possible solutions may be necessary. The problems of unreliable or distant water supplies are often appreciated by women who, in most developing countries, are the drawers of water. They can help in identifying the problems of current water supply systems. This initial step of involving the community in problem identification is essential because if they do not realise the problems of existing poor sources they may use them later on, even if they have acquired better facilities. If the current sources of water are contaminated the community will therefore contract diseases. This can easily happen if the improved facilities are at a more distant place for some people.

After the problem has been identified, the next step is to plan for better facilities. Again the community has to be involved. At this stage consultation can be done through the local leadership or a village water committee. It is essential that when a village water committee is formed women should be represented. The involvement of the community during planning ensures that the needs of the community such as live-stock watering, are taken into consideration. Some of these needs may not be apparent to the planner, but from the community's point of view these may be regarded as being important for any successful water supply system. If the community is expected to contribute by providing materials or labour, this has to be discussed at this stage. The community should give possible sites where they would want their water supply system. If there are any changes in the site due to unfavourable conditions, this should be explained to the community. This is important because the site of the new water supply system may mean longer walking distances for some members of the community. If the reasons are not properly explained, the people may revert to the former sources of water which may be unsafe. Although the design of the particular facility may be too technical for the community to comprehend, it is suggested that whenever possible the views of the community must be known.

The next step is the construction of the water supply system. At this stage the community should be aware of what is expected of them during construction. There are various forms of participation during construction, i.e. supply of material, labour, etc. Some facilities such as deep boreholes which require sophisticated machines and manpower for construction do not offer a large scope for community participation

during construction. Hand-dug wells offer the greatest scope for community participation. Local people can be trained to construct such wells. The training of local people has the advantage that such skills will remain within the community and can therefore be used to expand the rural water supply systems.

The operation and maintenance of the water supply system, which follows after construction, is the most important phase as this determines the success or failure of a new water supply system. The community, through a village water committee, should be responsible for the proper operation and maintenance of the water supply system. It is often recommended that a caretaker whose duties are to regularly grease and check if facilities are operating properly should be chosen from within the community. Such caretakers often need to undergo elementary training relating to the types of facilities for which they are responsible. Above the caretaker is the pump-minder who is responsible for several pumps. The pump minders undergo training which is much more advanced than that of pump caretakers. A decision has to be made whether the pump minder will be paid by the community or by the government. Pump minders report to a pump fitter who should be in charge of the maintenance of all the facilities in a district or province. Prompt repair of pumps which break down is crucial because any delays will lead to the disillusionment of the affected communities. This can lead to the abandonment of safe sources of water.

Finally the community should participate in the evaluation of the finished water supply systems. Obviously this has to be done after the system has been in operation for a reasonable length of time. This participation of the users is recommended because they will be able to say the problems they face. If the provision of safe water is part of the wider objectives of improving the public health, then some investigations on the incidence of water-related diseases have to be made. It has been observed that the provision of safe water does not necessarily lead to the improvement of health of the users. There are other modes of disease transmission which may affect the community. Thus personal health levels need to be improved. Some members of the community may lack the will to walk to more distant sources of safe water. In cases where the community is required to pay for the water, problems of non-payment can only be identified by involving the community in the evaluation.

CONCLUSION

Community participation should therefore not be regarded only as a means to minimize the costs of construction, operation and maintenance of rural water supply schemes. It is also an expression of widely accepted democratic principles, that is, people should be involved in making decisions that affect them. Such an approach will likely lead to making the rural people agents of their own development. Indeed the World Health Organisation cited one of the major problems encountered in implementing rural water supply and sanitation programmes as "over-reliance on central government, insufficient use of lower-level technicians and artisans" (WHO, 1981). The community based approach has been very successful in the development of water supply systems in Malawi, India and Latin America. Although Malawi is one of the least developed countries, she is likely to achieve the IDWSSD target. The Indian "barefoot hand pump doctor" concept is now being extended to all the states. Such success stories do not imply that there are no problems

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during the implementation of these projects. Some of the problems can be minimised if the planning is multi-disciplinary.

A problem which often arises is the unwillingness of villagers to co-operate with some members of the same or neighbouring village(s). In addition, an improved water supply scheme can easily alter the balance of power within a village. Power is transferred from the traditional healers and leaders to the literate and politically active members. Under such circumstances those who think that the new water technology will undermine their authority are possible stumbling blocks.

The community may be unwilling to co-operate because they mistrust the intentions of the implementing organisation. This seems to have been the case in the Mberengwa District, Zimbabwe, when the Lutheran World Federation was mobilising the community to participate in the hand-dug well scheme in 1980. The whole project was misinterpreted as having been inspired by the opposition party, since the Lutheran World Federation had initially started working in Matabeleland. The Government needs also to develop a clear policy regarding community participation in water supply schemes. On a national level in Zimbabwe community participation in rural water supply schemes is still in its infancy. A pilot project is being carried on in Mount Darwin. There is need for research on the advantages of community participation. Several hypotheses relating to the effect of community participation on maintenance of the water supply scheme, the effect on health of safe water sources, how much water is required per day by a family, what social, cultural, economic, and political factors will affect the willingness of villagers to participate, need to be tested.

The IDSSWD objectives may seem ambitious but when viewed in the context of all problems related to inadequate and unsafe water, this is not the case. About 80% of all sickness and diseases in developing countries are due to inadequate water or sanitation. Every year 25 million people die due to water related diseases. Thus by providing safe water and sanitation death rates could be reduced. As a result population growth rates could be reduced since in many developing countries there is a relationship between death and birth rates. Accessible water sources will mean an extra 26 days per year to some East African women, who spent such a time per year collecting water.

While there are numerous problems in achieving the IDWSSD target, we have to make a start just like the Chinese proverb, "a journey of a thousand miles begins with a single step".

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