



## Operation and maintenance: women, what role?

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OPERATION AND MAINTENANCE (O&M) of facilities is crucial to the successful management and sustainability of water supply and sanitation systems. Effective O&M results in improved health, socioeconomic and financial benefits. Nevertheless, it is pertinent to note that previously, O&M of water supply systems in rural communities in many developing countries including Ghana has been neglected. According to the WHO estimates, between 30 per cent - 50 per cent of existing water supply systems are not operational some three to five years after installation (McCommon et. al., 1990). This defeats the objective of water projects to improve the health conditions and well-being of beneficiary communities.

The issue of operation and maintenance involves various actors including women. As the main beneficiaries of improved water supply, women offer the best incentive for the success of community management of facilities, hence the need to involve them in sector activities in this direction. It has been established through experience that women make excellent site managers and are very good and conscientious in technical maintenance especially in handpump projects as female mechanics (IRC, 1995).

This paper seeks to discuss the current roles women are playing in the area of operation and management of rural water supply facilities, itemizes some of the factors that account for their limited involvement in key management activities, and finally, offers suggestions for increased involvement.

### Current situation

There appears to be an improvement in women's roles in operation and maintenance of water facilities over the last few years.

In the Upper East and Upper West Regions of Ghana, where safe water is difficult to come by, women's involvement in operation and maintenance is demonstrated in the fact that of the 10 districts which benefit from project assistance (from the Canadian-funded Community Water Project) about 40 per cent of the handpump caretakers are women. This is quite impressive. The same situation applies to the Northern Region Rural Integrated Program (East Mamprusi and Yendi Districts) where both men and women are trained as handpump mechanics, responsible for fault identification, corrective and preventive maintenance.

In the Birim North and South Districts in the Eastern Region of Ghana, where there is a UNDP-funded water project, about 35 per cent of the handpump caretakers in

the 100 communities where there is potable water supply have been trained to grease the above ground parts of the Ghana Modified Indian Mark II handpump. As part of their operation and maintenance functions, women also teach children how to pump water from the boreholes, organise regular pump site cleaning and make commercial users of water pay more than average water user fees for the maintenance of the facilities etc.

In a UNICEF-Danish Committee funded project, in the Eastern Region of Ghana, a woman water and sanitation (WATSAN) Committee member has been installing NIRA AFD handpumps with tremendous ease and competence.

Results of involving women in operation and maintenance in some developing countries can have very fascinating results. The situation keeps on improving.

For instance in India, a \$10 million Dutch-sponsored water program organised operation and maintenance training programmes by, among other things providing user education to women who spent much time working on farms and with cow dung. To make women's involvement more practical, they were provided with ladders and nail files to clean their finger nails. With time, the women are now being given recognition which hitherto was nonexistent.

In a UNICEF-sponsored water project in Bolivia where 450 gravity water schemes were installed, 20 per cent of the members of the administration, operation and maintenance committees have become women which is a change in Andean traditional roles of females. With capacity building interventions like active community development work, women's involvement in decision-making outside the home has greatly improved, thus empowering them.

Women hand-drilled 100 wells using vonder rigs in the Kadibo Division of Nyanza Province in Kenya in 1994. (Mwangola, 1995). Again in Machakos, Kenya, women's groups, assisted by a local non-governmental organisation (NGO) were trained in the technical aspects of constructing household rain water tanks in their attempt to solve their acute water problems. After constructing 2000 tanks in three years, motivation was so high that when funds from the NGO were no longer forthcoming, the women took the lead in constructing 100 extra tanks exclusively with their funds and that of their communities (IRC, 1994).

Women of low caste Indian stock who took part in politics won all the 14 places in the Sangha groups during

Panchayat elections in Karnataka State of Raichur District because they had earlier been involved in operation and maintenance of their water systems (Manchanda, 1995).

In management of operation and maintenance of their wells, women in Nicaragua plant banana and papaya trees close to the well sites. Income from the sale of these fruits led to other forms of development in the rural areas. (Diaz, 1995).

### Factors accounting for limited women's involvement

If women have not featured prominently in managerial and decision-making roles regarding operation and maintenance of water facilities then it could be attributable to factors such as stereotyping of gender roles, poor educational backgrounds, rigid norms and values, psychological factors, overburdening of women with household chores etc. (Dotse et. al., 1995). Fortunately, these things are changing for the better.

### Way forward

Participatory training programmes have to be organised for both men and women at the community level on the important role of women in water projects in general and operation and maintenance in particular. This would enable the men to appreciate the women and accord them the requisite recognition; it would also make the men more amenable to changing their stereotyped attitudes concerning women's traditional roles.

The services of Sociologists and rural community development officials should be sought in the attempt at involving women in water projects in the predominantly patriarchal pre-literate societies.

Women facilitators of water projects during training programmes, both hardware and software, serve as role models and an incentive that encourages rural women to take bold initiatives that help them to play their required roles.

Involvement of women in choice of technology and type of water system ensures better participation, including operation and maintenance.

A high-handed approach at involving women actively in operation and maintenance of water facilities and other related tasks which can be used sparingly is disconnection or closure of the facility. When the women go through the inconvenience and difficulties of having to live without safe water which they have been used to for a period of time, it causes them to attempt to identify problems and find solutions themselves.

### Conclusion

The attempt at mobilising women to get them effectively involved in operation and maintenance of water facilities should be pursued with circumspection, tact and diplomacy. This is important in order not to cause undue imbalances or disequilibrium in the social structure of traditional rural societies which can have disastrous repercussions on the impact or performance of the water projects.

As the principal users of rural water supply, women should be encouraged to play prominent roles in operation, maintenance and management activities. Thus, women should be given every opportunity to be involved in key management activities including operation and maintenance. They should also be encouraged to be the frontliners in user education for community members, utilising participatory skills.

With time it is believed that if donors, governments/institutions and the beneficiaries are all consulted during the planning and design of water programmes and through the process of implementation, monitoring and evaluation with the view to helping women to help themselves, rural women would be better involved in sustaining the facilities.

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