



## Role of Women in Prevention of Epidemic Waterborne Diseases Through Training Programmes in Mysore City

Farzaneh Shaikh Khatibi, A. Ramalingam\* and Sadanand M. Yamakanamardi\*\*

Department of Studies in Environmental Science, University of Mysore, Manasagangothri, Mysore-570 006, Karnataka

\*Department of Studies in Botany, University of Mysore, Manasagangothri, Mysore-570 006, Karnataka, India

\*\*Department of Studies in Zoology, University of Mysore, Manasagangothri, Mysore-570 006, Karnataka, India

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### ABSTRACT

Three minor epidemics of waterborne diseases were observed during the period of this study in Ekalavya Nagar, B.M Sri Nagar and Manjunathapura in Mysore City. As it is necessary to increase both, knowledge and awareness among people, especially women, about freshwater pollution, the H<sub>2</sub>S strip test as well as waterborne diseases training programmes were arranged for women and students on the subject of the epidemic of waterborne diseases in their own areas. The programmes were about the faecal contamination of drinking water, simple purification methods in drinking water supply management and sanitation, and were made possible through this research work. The results showed that women who participated in the training programmes, especially from the areas affected by the epidemic of waterborne diseases, were interested in water related training such as the H<sub>2</sub>S strip test as well as the chlorination method. It also showed that the use of buckets and storage vessels is a major means of introducing contamination. Due to the daily water requirement, women had to store water and for this they use some vessels to collect drinking water. Usage of the freshwater and daily refilling of the vessels kept for drinking water can help the health of the house holders.

### INTRODUCTION

Some studies have proven that women are more concerned about the environment than men (Kahle 1979, Van Liere & Dunlap 1981, Diekmann & Preisendorfer 1998).

The International Conference on Water and Environment held in Dublin in 1992 stated that the involvement of women in all phases of water management can benefit water supply and sanitation projects regarding their crucial role in the practical day-to-day supply, management and use of water, their participation in technical training programmes, and their implication in decision making process still remain to be improved (ACC/ISGWR 1992).

The efforts to involve the communities actively in this sector started with Netherlands assisted Integrated Rural Water Supply and Sanitation Project in Karnataka State in 1993 with the assistance of World Bank. The role of communities over the period has graduated from a mere formal/consultative one to that of a decision making. The reform in the urban water sector has been of a recent origin. Karnataka is the first state to announce a policy statement on the drinking water and sanitation in May 2003 (Kulkarni 2005). However there are evidences to show that unprocessed water is supplied in Mysore city by the Municipality to several areas like Belagola village, Mandi Mohalla, Ekalavya Nagar, Yadavagri industrial area and Manjunathapura. Mysore

Grahakara Parishat (MGP) has demanded that, as the people who live in these areas are always suffering from waterborne diseases, they should be supplied with processed and purified water.

This paper intends to study technical training programmes and sanitation conducted by some Non-Governmental Organizations (NGOs) in Mysore city, and an attempt has been made to increase their awareness regarding drinking water and to impart technical training to process polluted water and use it for drinking purposes to contain waterborne diseases. The results of the study are presented and discussed in this paper.

### MATERIALS AND METHODS

Data were collected through participation and observation in some technical training programmes about water and sanitation, conducted by NGOs such as Mysore Resettlement and Development Agency (MYRADA), MGP, Ajay Memorial Drinking Water Foundation (AMDWF) and the Organization for the Development of People (ODP). In addition data were collected on the topics of contamination of drinking water, simple purification methods, implementation of drinking water supply management, and health education in the water and sanitation sectors, at a meeting of one hundred members of women's Self Help Groups (SHGs). These are the voluntary Organizations which disburse microcredit to

members, which facilitates them to enter into entrepreneurial activities from six different selected areas with the assistance of Swarna Jayanti Shahari Rojgar Yojana (SJSRY) who were led by Prof A. Ramalingam who gave practical demonstration talks and those talks were arranged through this research work. Other training programmes were arranged for women and students in epidemic disease areas, where three minor epidemics were observed during the period of this research study in Ekalavya Nagar, B. M Sri Nagar and Manjunathapura in Mysore city.

## RESULTS

### NGOs and technical training programmes in Mysore city:

Some of the NGOs in Mysore city are using the Participatory Rural Appraisal (PRA) method as a technical training programme. PRA employs a wide range of methods to enable people to express and share information, and to stimulate discussion and analysis. Since the early 1990s, PRA approaches and methods have evolved and spread with astonishing speed. Originating mainly among NGOs in East Africa and South Asia, they have since been adopted by government departments, training institutes, aid agencies, and universities all over the world. PRA is one type of Participatory Action Research, which has been used primarily by international development workers seeking to engage economically and/or socially marginalized groups in identifying and investigating local problems, with the goal of catalysing action (Chambers 1999, Webber & Ison 1994). Several researchers have adapted PRA methods for use in urban communities in developing countries (Cottam 1994, Norton 1994). The experiences of NGOs in Mysore indicate that, PRA has been applied in almost every domain of development and community action in both the urban and rural areas. Studies show that the NGOs have involved women in sanitation programmes through the PRA. One of the most important programmes related to water conservation is rainwater harvesting from roof tops. The women have learnt that collecting, storing and putting to use roof top rainwater from houses or any construction is roof top rainwater harvesting. As centralized systems of water supply are under stress to cope with the huge water thirst of cities, rain water harvesting can also include collecting, filtering and recharging groundwater through percolation pits, open wells or bore wells.

### Women's SHGs from six different areas and training programmes:

Training programmes were arranged during this research work in order to implement and practice drinking water supply management and health education in the water and sanitation sectors by SJSRY. One hundred members of women's SHGs participated in this programme from six different selected areas. They were trained to test the faecal contamination of drinking water by the H<sub>2</sub>S strip bottle method, chlorination method and simple purification of water by filtering. Then they were made to participate in one of the Participatory Urban Appraisal (PUA) methods through answering some questions related to freshwater pollution. Fig. 1 shows some part of this training programme.

### Women and students in epidemic disease areas and training programmes:

Training programmes were arranged for women and students in areas where epidemic waterborne diseases have manifested themselves. Many women were involved in this programme and thirty six chlorination kits were distributed among students and women in these areas. Twenty seven of the chlorination kits were distributed freely among the poor women who live in these areas and the same were distributed at a subsidized rate to students. Table 1 shows the number of students and women who have received chlorination kits. Figs. 2 and 3 indicate some training programmes in schools and inhabitations where epidemic diseases have appeared.

Studies indicate that (except for students who had to participate in training programmes through their school) that only women were involved as volunteers in training programmes. The results of this examination show that three months later all the women who had taken chlorination kits were using them during the period of epidemic waterborne diseases. Only two of the women continued to use the chlorination kits after this period. A majority of the women stated that they felt that it was not necessary, and that they would not continue the process of the purification of water for drinking through chlorination kits, when the epidemic of waterborne diseases was over in their areas.

## DISCUSSION

Most of the NGOs are active in Mysore city and they have involved women's SHGs in sanitation programmes by us-

Table 1: Number of kits distributed in epidemic disease areas in Mysore city.

S. No.	Date	Place	Category	No of kits distributed
1	April 2008	B.M Srinagara	Housewife	24
2	August 2008	Manjunathapura	Housewife	3
3	August 2008	Manjunathapura	Student	9

Source: Field Survey



Fig. 1: Participation of some women's SHGs in training programme by H<sub>2</sub>S strip test in Mysore city, 2008.



Fig 2: H<sub>2</sub>S strip test training for students in waterborne diseases (WBD) epidemic area (Manjunathapura in Mysore city), 2008.



Fig. 3: Training in chlorination method for women at WBD epidemic area in Mysore city, 2008.

ing the PRA and PUA methods; however, they did not conduct regular training programmes, especially in case of the people who are living in epidemic waterborne diseases areas, on the topics of purification of drinking water with the purpose of changing their behaviour regarding providing potable water and water collected hygienically.

The studies show that women's SHGs who were selected from six different areas were interested in training programmes such as H<sub>2</sub>S and the chlorination method and that these can be used by Organizations in disaster situations. A majority of the women participated in group discussions and, thus, became involved by answering some questions about the types of freshwater resources and also water conservation by the PUA method. It also indicated the need for education to change their behaviour, which could be achieved through motivation and involvement in activities. Nowa-

days training in leadership and Popular Education Methodologies (PEM) has helped the area associations to manage their groups properly and to be accountable and participatory. PEM tools have further enabled the group members to reduce dependency and they are working together within the limits of the resources available to contribute to the reduction of their poverty and the problems affecting them. Data collected from epidemic waterborne disease areas show that:

1. Only women came forward as volunteers to learn about the simple purification method and waterborne diseases.
2. All the women who participated in the training programmes and then received chlorination kits for water processing, stopped using them once the spread of waterborne diseases (WBD) declined. Only two women out of 27 were using the kits even after the spread of WBD declined.

- All students claimed that, their mothers were using the kits and it emphasized the role of women in water purification processing and utilization.

## CONCLUSION

The results of this study indicate that the women who suffered from waterborne diseases in the epidemic areas also gave up the practice of processing water probably due to being overburdened with work and also the rejection of chlorinated water by their families due to its smell, but the women were eager to learn about the water test by H<sub>2</sub>S strip test of processing water purification, especially during the period of the disaster. Therefore, planning and training can be managed through some association and methods such as PEM method to help them. Women through their groups as well as SHGs can reduce their problems when they are trained and continuously encouraged. Following are some of conclusions drawn from this study:

- Women and girls are generally expected to care for the sick, particularly in times of disaster and environmental stress.
- Community development through local groups such as SHGs can help women improve their ability in solving their problems or reduce them with the assistance of the local NGOs.
- Although training has a vital role in disaster situation such as WBD, it can also be a continuous process with training programmes especially for the women's SHGs by NGOs.

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