TRAINER'S GUIDE

COMMUNITY BASED HANDPUMP MAINTENANCE INDIA MARK II & INDIA MARK III (VLOM) WATSAN COMMITTEE MEMBERS TRAINING

VILLAGE WATSAN COMMITTEE MEMBERS TRAINING
TRAINERS GUIDE

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About this Manual

The water supply programme, through installation of handpumps, has achieved significant progress in terms of accessibility and reach of the handpumps to the rural populations in the past few years. The focus now is gradually shifting from coverage to sustainability of the community water supply system. This changing scenario is leading to a transformation in the roles and perceptions of the users as well as the implementing agencies especially with regard to community involvement in repair and maintenance of installed handpumps.

Keeping in view these aspects, this manual has been developed as a guide to standardize the training of village WATSAN committee members for community based maintenance of the India Mark II/III handpumps. It contains all the information necessary for organizing and conducting the training of WATSAN committee members. It highlights certain key factors that must be kept in mind during the sessions thus it can use the guide as a reference during the training by the trainers.

The trainers guide can be used effectively along with other materials available for training of WATSAN committee members. ie.

Training film, manual and slide set on dismantling and repair of the India Mark II/III handpumps; Posters on handpumps; flipchart-cum-calendar on women's role in repair of handpumps; flipchart and films on concept and components of sanitation.

Introduction

Rural Water Supply Programme

India implements possibly the largest rural drinking water supply programme in the world. Provision of drinking water supply is the core of its development plan. However, the magnitude of the task of providing safe potable water to the 6.5 million rural people and the enormous cost involved make the possibility of any piped water supply or centralized maintenance systems such as those that exist in urban areas difficult.

Consequently, the Government of India (GOI), in cooperation with the State Governments, World Health Organization (WHO), United Nations Children's Fund (UNICEF), Mechanical Engineering Research & Development organization (MERADO) and Richardson & Cruddas (1972) Ltd., (a GOI Undertaking), evolved a very reliable and sturdy deepwell hand pump known all over the world as India Mark II deepwell handpump. By the early 1980's, the India Mark II hand pump had become a household name in the villages in India, and it proved a reliable source of water supply to millions of people in rural and semi-urban areas. By 1993, over 2.2 million India Mark II/III hand pumps were in operation in India alone.

The development of India Mark II was a major breakthrough in reliability and ease of operation. There was a dramatic increase in the number of pumps operating at any point of time from a dismal 25% to an impressive 85%.

Although, sturdy and reliable in design, the pump requires preventive and curative maintenance. The repair needs envisage special skills, manpower and tools to make replacements. These may not always be available/feasible at the village level.

In addition, studies conducted so far indicate that the present maintenance systems have high overhead cost. Further, the community is not adequately involved during planning, execution and maintenance of the handpump based water supply system.

In order to improve the IM-II handpumps, to enhance maintainability at village level and increase meantime before failure (MTBF) further efforts during the period 1983-87 led to the development of a village level operation and maintenance (VLOM) version of India Mark II known as India Mark III handpump. This VLOM concept promotes maintenance of a handpump by the users themselves with minimal outside support.

Community Based Handpump Maintenance System

Community involvement right from the stage of request to site selection, installation, operation and maintenance of the handpumps would result in a sense of ownership of the handpump installed. The community would then understand and appreciate its role in management of the system and would be willing to take responsibility for its maintenance. User responsibility and accountability are essential for sustenance of safe water supply through handpumps installed in the village.

While the India Mark II/III handpumps are dependable, strong and efficient pumps, like any other machine, they require a certain level of maintenance to function without breakdown. As the number of installed handpumps increase in a district, the efficiency of a maintenance system through a centralized mechanism deteriorates. Thus priority needs to be given to the development of sustainable village based and community managed maintenance systems which adapt to the local needs and requirements.

Definition

*The Community Based Handpump Maintenance System, is a strategy for ensuring sustenance of the water supply through the handpump at the village level. Under this system of maintenance, **the user groups select representatives to form a Water and Sanitation (WATSAN) committee. The WATSAN committee undertakes the responsibility of management, preventive, maintenance as well as repair of the handpumps installed. It collects contributions from the users and uses the money to buy spares required for repair & maintenance.***

One user representative per handpump is selected by the WATSAN committee to undertake preventive maintenance of the handpumps. One handpump mechanic per panchayat is selected & trained to undertake repair of the handpump. The caretakers and mechanics work under the overall responsibility of the WATSAN committee. The skills necessary for maintenance & repair are transferred to the community representatives (caretakers & mechanics) through training.

Self-sustainability in terms of procurement of spares and servicing cost is ensured through contributions from user groups.

COMMUNITY BASED HANDPUMP MAINTENANCE

ORGANISATION PROCESS

Meetings with officials and community leaders

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Village contact drive and orientation of community.

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Formation of WATSAN committee

|

Registeration of committee

|

Orientation & training of WATSAN committee members

|

Collection of funds from community.

|

Selection and training of caretakers & mechanics

|

Installation of handpump

|

Public handing over of handpump

|

Community operates and maintenance handpump

|

Monitoring and evaluation

STRUCTURE

PANCHAYAT

Handpump caretaker (one/handpump)

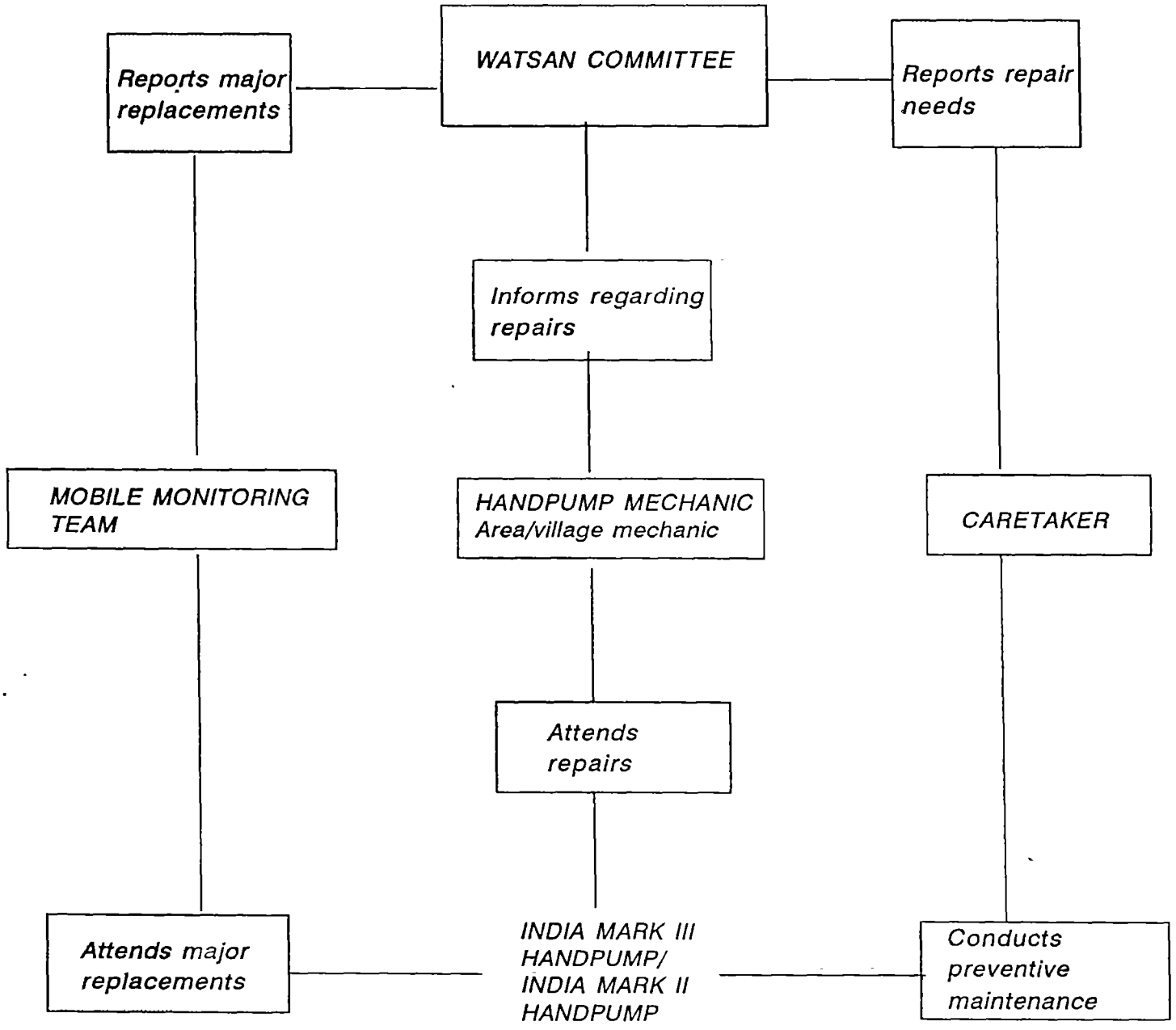
Handpump mechanic

Village WATSAN committee

BLOCK/DISTRICT

Back-up monitoring and maintenance team

FUNCTIONING



WATSAN COMMITTEE

Why a WATSAN committee

Community ownership

Community ownership and user responsibility are necessary to sustain safe water supply through handpumps at the village level. The WATSAN committee is the viable mechanism to operationalise this concept of community ownership. The WATSAN committee is the body at the village level that is accountable for management of the water supply facilities and responsible for collecting user contributions.

Women's empowerment

Studies all over the world have shown that women are the water seekers and handlers in most societies and by virtue of their domestic functions are the managers of water at the household level. They are also the principle influencers of the family's sanitary habits. ***A women's perspective can, therefore, contribute a great deal to the better planning, functioning and utilization of the facilities, especially when they are made aware of the linkages existing between safe water and health and are provided with appropriate training and support.***

Women are more than target groups. They are active agents who can contribute to decision making, generation of ideas, mobilizing labor, providing resources, and disseminating and implementing innovations. By involving women in the planning, operation and maintenance stages, the community water supply projects can be expected to be more effective in achieving their objective of sustaining availability of safe water for better health. Moreover, the active participation of women leads to improvement in their status in society as also generate appreciation for their role in development.

Women should play a major role in the functioning of the WATSAN committee. Women also have the potential to provide preventive maintenance and to repair any malfunctioning in the water supply facility, thus ensuring sustained water supply to the community.

Role of the WATSAN committee

Select the user representatives, handpump caretaker and mechanics for the handpump installed and coordinate their training with the implementing department.

Supervise, coordinate the repair works and pay for the services of the handpump caretaker and mechanics based on the time taken for repair on monthly basis.

Collect contribution for maintenance of handpumps from users through the panchayat and pay the village caretaker and mechanic for the repair and maintenance service.

Procure spares and tools needed for the repair and maintenance of the water supply system from the implementing department's block level office, keep record of their use and pay for them through contributions from users.

Maintain a handpump repair and maintenance record and also keep record of income and expenditure on maintenance of the water system.

Promote health and environmental sanitation activities in the villages through village meetings, organizing clean village drives and other motivational programmes in liaison with the government departments.

Organize periodic monitoring of the water quality of the water from the handpump and inform the block level official if the water quality is found unacceptable.

Undertake activities to maintain a clean environment around the handpump.

Formation of the WATSAN committee

During the village contact drive the committee members are identified. The committee comprises of 7-8 members from the village community. The committee must have at least 3-4 women members. The structure of the WATSAN committee is finalized through meetings with the village leaders and community members.

Selection of members

It is important to select the members of the WATSAN committee carefully. In the selection process, the village community should propose the names of the members. However, the government implementing department and the NGO functionaries should participate in the selection process and make sure that all the sections of the village community are represented. Certain criteria should be kept in mind while selecting the members to ensure that the WATSAN committee performs its roles and responsibilities seriously.

Registration of the committee

Once the structure of the committee has been finalized and the members selected, the committee should be registered with the panchayat and the block development office. A registration is crucial as it authorizes the committee to function as an organ of the panchayat. It can then collect money from the user groups on behalf of the panchayat.

It is recommended that the committee then opens an account in the local bank or post office for depositing contributions from handpump users. The money deposited can be used for paying the caretaker and mechanic for their services and procuring the handpump spares. As the funds in the account grow they can be used for other activities for the promotion of water and sanitation.

Selection criteria

- *Has leadership qualities*
- *Is willing to take the responsibility*
- *Is able to read and write*
- *Is willing to undergo training*
- *Preferably is a woman from the user community*
- *Is compassionate and inclined to serve the community voluntarily*

4. TRAINING OF THE WATSAN COMMITTEE MEMBERS

Objective

To orient the WATSAN committee members on their role as well as the different aspects of community based handpump maintenance system.

Duration

The WATSAN committee members are given a one day training/orientation.

Organization

The Public Health Engineering Department in consultation with the district and block authorities, local Non Governmental Organizations and WATSAN committees organize the training at the district/block headquarters.

Functionaries from the implementing department (Public Health Engineering Department/ Water Boards/ Rural Development Department), Health department, members of the mobile team for community based management and representatives from Non Governmental Organizations involved in the programme train the WATSAN committee members.

Training methodology

Lecture-cum-discussion sessions are held for the theoretical sessions. Group work /discussion sessions are held on the roles and responsibilities of WATSAN committee, village handpump mechanics and caretakers in the community based maintenance system. Handpump repair is demonstrated using handpump models.

Tentative Training schedule

9.00 - 9.30 a.m.	*Registration*
9.30 - 10.00 a.m.	*Introduction*
10.00 - 10.30 a.m.	*Inaugural*
10.30 - 11.30 a.m.	*Importance of Safe Water*
11.30 - 12.00 p.m.	*Handpump based water supply system*
12.00 - 1.00 p.m.	*Community based handpump maintenance system*
1.00 - 2.00 p.m.	*Lunch*
2.00 - 3.00 p.m.	*Role of WATSAN committee*
3.00 - 3.30 p.m.	*Role of handpump caretakers and mechanics. Criteria for their selection*
3.30 - 4.30 p.m.	*Monitoring handpump performance*
4.30 - 5.00 p.m.	*Sanitation in the village*
5.00 - 5.30 p.m.	*Evaluation of training programme and closing ceremony*

Session-wise subject content and methodology

Session	***Registration and Introduction***
Objective	*To know the background of the trainees and maintain a record for follow-up of the training.* *To welcome the participants and initiate the process of cohesive group formation.*
Methodology	*Refer to the format for registration and the attendance register for trainees. Fill up the background information forms.* *Informally introduce & welcome the participants to the training programme.* *Sub-divide participants into groups on the basis of a game. Allow time for discussions & familiarization among the trainees. Ask one trainee to introduce her group mate to the entire group.* *Name, occupation, qualifications, village, workplan, family background etc. of the participants narrated by different participants.*
Session	***Inaugural***
Objective	*To inaugurate the training programme and briefly outline the objectives of the training.*
Subject content	*Status of the handpump installation under the Rural Water supply programme. Problems of the centralized maintenance system. Need for community based handpump maintenance. Scope/objectives of the training programme.*
Methodology	*Presentation/address by the training programme coordinator on the objectives of the training.*
Session	***Importance of safe water and hygiene practices.***
Objective	*To highlight the importance of safe drinking water, hazards of unsafe water and inform about the sources of safe drinking water.* *To emphasize the importance of proper sanitation and hygienic practices.*
Subject content	*Water borne diseases.* *Link between unsafe water and diseases.* *Relationship between sanitation & diseases.* *Importance of a safe source of drinking water.*

Methodology	*Discussion using the Photodisplay set on sanitation and Flipcharts to illustrating the disease transmission cycle. Films like "Prescription for health" or Story of drinking water" (Pani Ki Kahani) may also be used. Visual-aid calendar, modified photodisplay on sanitation and flipbook on safe water and sanitation "Saf pani aur safai" may also be used. Set of posters on the role of women as handpump mechanics may be put up at the training venue.*
Session	***Handpump based water supply system***
Objective	*To create an understanding of the functioning of the India Mark III handpumps to lift groundwater.*
Subject content	*Importance of ground water as a resource for safe water supply. Basic aspects of construction of a tubewell to lift ground water. Operating principles and functioning of a lever action handpump.*
Methodology	*Film show / slide presentation and discussions on the community based handpump maintenance system.*
Session	***Anatomy of the handpump***
Objective	*To teach the trainees about the different parts of the handpump, its functioning mechanism, the VLOM aspects and its maintainability at village level.*
Subject content	*Mechanism of the handpump and how it ensures protected water supply. Anatomy of the handpump - Above-ground components, Below-ground components. VLOM aspects (if any). Operating principles.*
Methodology	*Discussions using posters, model of the handpump, wall charts on the anatomy of the handpump and film on installation of the India Mark II/III handpump.*

Session	***Community based handpump maintenance system***
Objective	*To create an understanding about the need, structure and functioning of the community based handpump maintenance system.*
Subject content	*Centralized maintenance of handpumps and need for the community to take responsibility and accountability for handpump maintenance. Key aspects of community based handpump maintenance system.*
Methodology	*Discussions.*
Session	***Role of the WATSAN committee***
Objective	*To inform about the various responsibilities of the WATSAN committee.*
Subject content	*Role & responsibilities of the village WATSAN committee especially in selection training of the handpump caretaker and mechanic in the community based handpump maintenance system.*
Methodology	*Discussions.*
Session	***Role of the handpump caretakers and mechanics***
Objective	*To inform about the recommended tasks of the handpump caretakers and the various responsibilities of the handpump mechanics.*
Subject content	*Role & responsibilities of the village handpump mechanic, recommended tasks of the handpump caretaker in the community based handpump maintenance system.*
Methodology	*Discussions.*
Session	***Monitoring pump performance***
Objective	*To inform the trainees about the monitoring system and emphasize the need for record keeping. To teach the trainee how to maintain records/monitoring formats.*

Subject content	*Record keeping & its importance.* *Types of formats for monitoring pump performance.*
Methodology	*Discussion. Actual practice in filling records.*
Session	***Village and home sanitation***
Objective	*Inform the trainees about the importance of village & home sanitation. Identify/specify the role of the trainees in maintaining village sanitation.*
Subject content	*Village sanitation.* *Alternative delivery systems.* *Sanitation in the home.* *Sanitary latrines.* *Personal hygiene.* *Handling of drinking water.* *Garbage disposal.*
Methodology	*Discussion using films and printed materials available on components of sanitation.*
Session	***Distribution of materials and winding up of training programme***
Objective	*To evaluate the training programme, close the training programme formally and distribute materials that the trainees will need during their work.*
Methodology	*Use question answer technique to evaluate the training programme regarding the organization, session subject content, materials used and methodology used.* *State the results of the evaluation and give a few words of encouragement to all the trainees.* *Distribute the certificates to the trainees along with the participant kits.* *If some senior official or dignitary is present request him to distribute the material and say a few words of encouragement to each trainee.* *Say good bye to trainee and close the training programme.*

Recommended list of materials in the participant's kit

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1. *Bag, notebook and pen.*

2. *Poster roll containing posters on India Mark III handpump - Stree shakti posters (3) and handpump posters (8).(In regional language)*

3. *Flipbook on safe water and sanitation (developed as a part of the NDWM package) in the regional language.*

4. *Set of six pamphlets on sanitation in regional language.*

5. *Booklet "Sanitation an Way of life" in the regional language.*
