

INSTITUTE OF SECRETARIATE TRAINING & MANAGEMENT

**TRAINING COURSE
ON
WATER SANITATION & HEALTH**

**TRAINER'S MANUAL
FOR
WATER
VOL. I**

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ISTM

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INTRODUCTION

Among the basic services that affect human development are access to drinking water (defined in terms of availability, proximity and quality), sanitation and hygiene. Access to drinking water has implications not only for health status and human development parameters but also for opportunities depending upon the opportunity cost of time. This has special implications for women and children. The responsibility for fetching water, sometimes over long distances, for the needs of any household are invariably assigned to women or girls, who drop out of school to attend to these chores. Hence, the ready availability of safe drinking water lays the foundation for improvement in literacy and health indicators in communities. The aim of this training manual is to sensitize to the problems and creating awareness about the possible solutions and alternatives in regard to water.

This Training manual is a book for use of activities or taking sessions in the class for trainers being trained in the Training course on Water Sanitation and health. This book is equally useful for such trainers to serve the community, educate the SHG members and other members of the community. There are a number of activities, the trainer can choose the activity according to her interest and convenience.

This volume is relating to Water portion of the course. It helps the trainers to give easy to understand basic inputs that are to be used or demonstrated to the community members. This manual is accompanied with an elaborate reading material which gives a background and additional information on topics related to this subject and trainers are expected to go through the reading material before taking sessions or talking with the community to mobilize them. The reading material that is accompanying this manual however is not exhaustive only select readings which form the basis of the topic are included. The trainers are requested to do extensive research and further reading on the topic.

In situations where water is available but is unsafe, simple immediate measures can be taken at the household level. This is the case when families, for example, are accessing a polluted surface water source or when the safety of piped water is compromised due to a water supplier's failure to implement adequate risk management practices or a regulator's failure to set and enforce health-protecting regulations. The Guidelines provide comprehensive guidance on household water treatment and safe storage approaches, including information on their efficacy at inactivating microbial germs.

To mobilize community support and to motivate SHG members to use practices necessary for them to use water safely and to protect themselves it is necessary to emphasise on the Importance, its relation to their health and well being. So before starting the topic a little awareness about the community we live in, its problems and the depth of the problems may be discussed.

As this is a training course for building capacities for people working at grass root level a little about Delhi and area would connect the target group with the training.

A pre-requisite to this training is also a familiarity with the participatory methodologies that can be used in training and knowledge how to sensitize, motivate and train the members. This aspect will be covered informally during this training and a formal 3- day training in various training techniques that can be used will be arranged before the training of trainers.

The trainers will also be provided training kits which include a process sheet which gives the sequential flow of the training and the time devoted to each session. The kit has PowerPoint slides and films and pictures/posters that can be used in the class and also with the community members.

Manisha Bhatnagar
Deputy Director

LESSON 1

Ice breaking

Icebreaking is an essential part of any training program because it puts the participants/ members at ease, creates a friendly atmosphere and gives an opportunity to everyone to participate and become interested.

Time : 30 to 40 minutes (depends upon the number of participants)

Materials: film 1, PPT slide 1 and Flipchart.

1. It is recommended that when the participants/members come to the classroom a film on water is running as they seat themselves and fill in the registration etc.
2. After the registration formalities and introduction by the faculty, the participants may be asked to share information with their neighbours about the following:
 - Name
 - Place of living/working
 - General situation regarding water, sanitation and helath in their own locality and the community in which they are working.
 - Expectations from the course
 - The trainers are advised to write the above parameters on a flip chart.
3. Request the participants to introduce their neighbours stating all that they have learnt.

LESSON 2

LEARNING LOG

Objective:

1. To describe a scientific and systematic way to record your learning
2. To use the toll to reflect and make decisions in future.

Time : 10 minutes

Material used: Handout on "learning log" and white Board.

Method:

- 1 Describe that we are learning all the time.
- 2 It serves us better to record our learning.
- 3 The handout explains how to use the format.
- 4 Emphasize on importance of recording the learning to make better decisions in future.
- 5 Distribute the hand out.
- 6 Give time to go through it for 5 minutes.

LESSON 3

Delhi

Objectives:

1. To describe characteristics of Delhi, which lead to problems of urban poor.
2. To list distribution of water and sanitation related facilities

Time : 15 minutes

Material used: PPT slides 1-3.

Method:

1. Describe about Delhi, influx of people from other parts of country, growth in population etc.
2. Factors leading to depleting resources in Delhi.

LESSON 4

IMPORTANCE OF WATER

Objectives:

1. To describe the content of water in human body and its functions
2. To why drinking clean water is important

Time : 15 minutes

Material used: PPT slides 5-6.

Film on Good drinking water.

Method:

- 1 People need water to survive, one can live up to maximum of 7 days without water
- 2 Show PPT 5 AND 6, and talk about the general make up of the human its functions, and importance.
- 3 Show PPTs 7 and 8
- 4 Throw question s like where does water come from ?
- 5 Explain water cycle
- 6 Show film on good drinking water (2min.30 seconds)
- 7 Discussion after film may include following points:
 - a) What is safe drinking water? Generally clear, transparent, colourless and odourless is good. But that is not enough.
 - b) It may have disease causing germs.

- c) Children below 5 yrs die from diarrhea due to unsafe drinking water.

LESSON 5

Why the resources of water being depleted?

Objectives:

1. Describe sources of water in Delhi
2. To describe the factors responsible for depletion of water

Time : 30 minutes

Material used: PPT slides 10-12

Method:

Part I

1. Show PPT 10
2. Ask the participants to discuss among groups of four and list down factors responsible for water shortage (give 5 min)
3. Ask one of the group members to tell the factors

Part II

1. Show PPT 11
2. Explain that Drinking water comes from the surface or from underground sources.
3. Surface water means lakes, rivers or ponds.
4. Ground water comes from springs, wells, handpumps or tubewells.
5. Show PPT 12
6. Population increase, deforestation, inefficient way of handling or wasting water, advancement in science requires more industrial use
7. LINK it to Water Cycle.

LESSON 6

CONSERVING WATER

Objectives:

1. To list practices for conserving water individually
2. To list practices to stop wasting water individually
3. To describe practices for conserving water at community level
4. To describe practices to stop wasting water at community level

Time : 60 minutes

Material used: Film on conservation of water 1

Activity sheet 1

Poster: Do Not Waste water

Film on conservation of water 2

Method:

Part I

- Show Film 1 for 2 minutes
- Distribute the Activity sheet 1

- Ask participants to work on the sheet for 10 minutes
 - Display the poster and explain where water can be saved
- Show film2

Part II

LESSON 7

CONTAMINATION OF WATER

Part1*

I. Introduction: Water – can be contaminated in many ways. Contaminated water carries many germs, which cause many diseases. Mainly dirty hands, dirty containers, unhygienic water handling practices contaminate safe water. Good practices can help us prevent contamination of water. The practices are simple and easy to adopt.

II. Objective:

- ❖ To educate community on how water is contaminated through unsafe water handling practices
- ❖ To create awareness as to safe water handling practices and reducing water and sanitation related diseases.

III. Time: One and half hour

IV. Lesson Content: 1. Collecting:

- ❖ Wash the containers with a cleaning agent before collection
- ❖ Filter the water with a clean cloth, if needed
- ❖ Ensure that while collecting water, there is no washing or cleaning activities taking place nearby, which can contaminate water at the source
- ❖ Ensure that you do not dip your hands while lifting the pot, for this can contaminate the water
- ❖ Cover the water container while carrying home

2. Storing:

- ✓ Keep the container, with water, always covered with a lid
- ✓ Keep the container above the ground level

3. Handling:

- Not to dip the hands and fingers in the water.
- Use a ladle with a long handle to take water from the container.
- A container with tap can be used to store water making it easy to handle
- Where none of the above is available, tilt the container and take water

Method:

Material : PPT slide 13-14 /posters

Activity

Material required:

1. Glass tumbler
2. Water pot
3. Haldi/Rangoli powder
4. Soap

Process: Discuss with the group as to :

1. Where do they go to collect water?
2. At what time they go to collect water?
3. After they have told this ask the following questions related to water handling practice and ask them to respond verbally and also using actions by hand:

(When they tell each point ask it through action)
 - a. How they wash the pot?
 - b. How they lift the pot?
 - c. How they take it home?
 - d. Where they store it and how they keep the water pot?
 - e. How do they take water from the pot?
4. When coming to **question e** (How do they take water from the pot?), just ask one member for a cup of water (she can take water from the water pot kept nearby) and observe the practice.
5. After this the following demonstration should be done:

Demonstration:

- Ask one of the member to rub her fingers with turmeric [haldi/rangoli] powder
- Ask the member to take a glass tumbler and take water from the pot kept nearby
- Ask her to drink the water.
- She/He would hesitate to drink? Ask the reasons.

- Link them as to how unsafe water handling practices can lead to faecal oral transmission of diseases.
 - 1 Explain how water can be contaminated
 - 2 Use PPT 13 -14

Now with this demonstration and your observation of the water handling practice of the member (when asked for water) teach them about safe water handling practice.

VI. What to gain?

- ✓ Water is safe and clean for drinking without any contamination
- ✓ Prevention of faecal oral and other germs passing on to the water
- ✓ Reduction in diarrhoeal diseases
- ✓ Increased health

VIII. Follow up:

SHG members to visit each other's house and observe the practices regarding water handling (Water pot kept above and covered, using ladle)

In the next meeting decide as to number of ladles to be bought, collect contribution regarding the same and buy them collectively and distribute or motivate community to use local materials for safe water handling.

In the subsequent meetings ask the number of members practicing them and fill them as per the format in the minutes register:

ACTIVITY SHEET 2

DATE	SHG MEMBER's NAME	WATER HANDLING PRACTICES				
		WASHPOT	FILTER WATER	COVER POT & TAKE IT HOME	WATER POT KEPT ABOVE & CLOSED	USE LADLE

*(Part 1 of Lesson 7 has been prepared with help WaterAidof training manual for SHG leaders)

Part 2

Activity 1

- Recite the poem on handling water. (Available in Hindi)
- Distribute the poem to SHG members and ask them to join you in reciting.
- Reinforce by asking question 'why' everytime.

LESSON 8

CLEANING WATER

Activity 1: Cleaning the flow

- Ask some participants to take a clean white cloth and show it to the class.
- Ask them to place the cloth over an empty container and tie it firmly around the opening.
- Explain to the class where the water comes from (muddy water containing vegetation etc). Ask the participants to pour it through the cloth. Ask them to describe what they see on the cloth.
- Ask them to loosen the cloth and hold it, and the container, up against the light for the class to see. Ask the other participants to describe what they see and to discuss what may, and may not be retained by the cloth.
- Trainer now should explain that the cloth will not be able to stop germs from the cloth.

Activity 2: Filtration for purifying water

Sand filter

- Make a sand filter in advance for the SHG members or help them to make their own sand filter.
- Cut the bottom off a clean and clear plastic bottle. Cut out a circle of fine mesh to make a wire screen large enough to block off the neck of the bottle. Put the screen inside the bottle so that it is firmly lodged halfway down its neck.
- Put a layer of coarse pebbles on top of the screen, then a layer of coarse sand, and finally a layer of fine sand.
- Pour some dirty water into the bottle and let it soak through.
- Ask the participants to observe the color of the water that drops into the bottle.
- Explain that the sand traps germs, but that over time it gets clogged by the particles of dirt. It needs to be taken out of the filter and cleaned or replaced every few weeks.
- Replace it when the water trickles more slowly or stops flowing altogether.

Water treatment options

- Boiling, if done for at least ten minutes but if possible 20, is safest.
- This is followed by slow sand filtration, chlorination and solar disinfection. Boiling, chlorine and strong sunlight all kill bacteria. Slow sand filters form killer bacteria which 'attack and eat' other bacteria that are harmful to health.
- Filtering through a cloth is least safe. The cloth filters the large bits of dirt, but does not attack and kill bacteria.
- Some are small enough to slip through the threads of the cloth. To illustrate this, draw a diagram of a woven cloth.
- Alum and certain seeds clarify water but do not kill bacteria.
- Water directly from an unsafe source is totally unsafe.

Tips on safeguarding water

- All of us need clean water to drink. We can go for weeks without food, but only days without water.
- Contaminated water can be a threat to anyone's health, but especially to young children.
- Use Household Products Properly: BE CAREFUL...Many things around the home like paint or cleaners can harm you and cause water pollution if they are not handled and disposed of properly.
- Care for Your Garden: Everyone needs to use fertilizers carefully. If too much fertilizer is used, the fertilizer can wash into streams and cause water pollution.
- Plant Trees and Shrubs: Trees and shrubs help prevent water pollution by soaking up extra fertilizer (nutrients).
- Plants also prevent erosion by keeping the soil where it belongs – on the land and out of the water.
- Control Rainwater: When lots of rain falls on hard surfaces like paved sidewalks and streets it can run off carrying leaves waste and car oil into drains. The drains eventually seep into the water table causing water pollution.
- The community mobilizer/SHG worker can encourage and help SHG members to plant more trees for their community to make it a better place.

Lesson 9

Need for water

Health worker discussion questions:

- How could the company share water more fairly with others in community?
- Does the government have a responsibility to protect people's right to water and health?
- Are there ways that your community's need for water might be better met by your local government?

Health problems from lack of water (water scarcity)

For the people who collect and carry water — usually women and children — water scarcity can mean traveling long distances in search of water. For farmers, water scarcity means hunger when drought causes crops to fail. For children, water scarcity can mean dehydration and death.

In hospitals, clinics, and other places where sick people get care, lack of water for washing can allow infection to spread from person to person. A reliable supply of safe water can mean the difference between life and death.

Collecting and carrying water over long distances causes many health problems.

Water can prevent and treat many illnesses

We need water to heal from many illnesses. Water is used to prevent and treat diarrhea. (See the book Where There is No Doctor and the booklet Sanitation and Cleanliness for a Healthy Environment for information on making a rehydration drink to treat diarrhea.) Washing hands with soap and water after using the toilet and before eating or handling food helps prevent diarrhea illnesses. If there is not enough water for washing, there is much more risk of illness and death.

How much water do we need?

People can survive much longer without food than without water. The average amount of water that 1 person needs for good health each day is:

- 1 to 3 liters for drinking
- to 3 liters for food preparation and cleanup
- to 7 liters for personal cleanliness
- to 6 liters for laundry

This totals 15 to 20 liters per person per day. But many people are forced to manage with much less. Other needs, such as sanitation, irrigation and watering livestock often require much more water than drinking, cooking and washing.

Community places such as schools and health centers may need more than the average amount of water used by one person in a household. Health centers, for example, should have at least 40 to 60 liters of water per day available for every person served.

Most people are willing to pay a reasonable price for safe drinking water. But in many places, water that people need for drinking is used by industry and agriculture or sold at a price people cannot afford. Whether water is managed by the community, by government, by private companies, or by a partnership of these groups, the people who need water most must have a say in how it is priced, distributed, and used.

Activity Sheet 3

- The SHG/Community mobiliser can use the worksheet for self and the SHG members.
- If they cannot write the mobilize can ask them and fill the sheet herself.
- This will give a rough amount of water that person needs and will motivate her make efforts to secure that amount of water.

ACTIVITY SHEET 3

NAME:

Uses of water at home; record how much water is used at home.

Activity (use in liters)	Number of times a day	Total water used in litres	Water Quality	How can I reduce my water consumption? Can the used water be re-used?
Cooking main meal (10 liters)				
Other needs				
Drinking (0.25 liters) per glass				
Washing dishes in a tub or bucket (9Litres)				
Washing clothes (how many?) by hand (60 litre)				
Washing with washing machine each cycle (15 liters)				

ACTIVITY SHEET 4

What do we use drinking water for and how much?

Record how much drinking water is used and what for?

Activity	DATE	DATE	DATE	
	Number of times	Liters used	Number of times	Liters used
Cooking				
Drinking (yourself)				
		Total		Total
Average liters of drinking water used				

LESSON 10

NEW DELHI Case Study

NEWS ITEM- UNI (Appeared in News Paper on 17.4.2010)

NEW DELHI, APRIL 17: TWO CHILDREN DIED AND MORE THAN 50 PEOPLE FELL SICK AFTER CONSUMING CONTAMINATED WATER IN FATEHPUR BERI AREA OF SOUTH DELHI.

"Two choildre, 14 year old javed and 11 year old Ashit died after drinking the polluted water," a police official said.

The matter had come to light last night at around 2030 hrs when the victims including elderly, began to vomit and had loose motions as soon as they consumed the water from the boring.

They were provided immediate medical treatment and were admitted to Mission Hospital in the area.

"The condition of at least 35 of them is still critical. They have been admitted to the AIMS and the Safdurjung Hospital and are under treatment," the official said.

The area has two villages Chandan Hola and Kharag—from where the complaint had come. The deceased belonged to these villages each.

Meanwhile the Municipal Corporation of Delhi (MCD) has claimed that proper chlorination were not fitted at the water supply link that resulted in contamination.

"We have given our report to the DJB engineers and have asked them to take serious action immediately," N K Yadav, MCD officer told UNI.

The MCD has asked the water department to provide water tankers in the area till the chlorinators are not fitted.

Mr. Yadav added that Chlorine tablets have also been provided to the area residents to put in their drinking water before drinking.

Further investigation was on.

Method:

- Tell the above story in the community.
- Ask people questions as follows
 - Why water becomes contaminated?
 - What could the community people do to get safe water?
 - What are their rights?

LESSON 11**

RIGHT TO WATER

Most water is used — and polluted — by industry and agriculture

Industry and farming use — and pollute — much more water than the amount used by people for their daily needs. This threatens the safety and availability of water for household use. Because water is a human right, government is responsible to help meet people's need for enough, safe water. It often takes people working together to make sure the government will honor and protect their rights to water security.

Industries and communities compete for water**

Plachimada is a small village of rice and coconut farmers in the south of India. Farmers there have long been able to make a good living because the rainfall is plentiful and the soil is fertile. But a few years ago all of this began to change when the Coca-Cola Company built a soft drink bottling factory on the edge of the village.

The company drilled deep wells to draw up groundwater to make the cola drink. Every day the factory used 1.5 million liters of water. Villagers watched as trucks left the factory day after day, carrying away the water that once fed their crops. After the factory had been there for 2 years, villagers found that their crops were dying, their household wells had less water than before, and the water was a strange color. When they cooked rice with the water, it turned brown and tasted bad. When they drank or bathed in the water, it caused skin rashes, baldness, pain in the joints, weak bones, and nerve problems. The villagers began collecting water far from their homes to protect their health.

During a time of severe water scarcity, more than 2,000 peaceful protestors led by village women approached the Coca-Cola factory demanding that the company leave and pay the villagers for the loss of water. The company responded by sending a truckload of water to the village every day — but this was not enough to meet the villagers' needs. After 50 days of protests, police arrested 130 men and women. Many months later, 1000 people marched to the factory and again the police arrested many of them.

The struggle caused hardships for the people of Plachimada, but it also brought them together to demand their right to safe water. After several years, the local government began to support the people and ordered the company to stop using groundwater in times of drought. But the State government said the company should be allowed to continue using groundwater. The conflict went to court, where the local government supported the people of Plachimada, while the State government supported the company.

The people of Plachimada continue to suffer health problems and continue to collect water from far away. **But their demand for the human right to water has received attention throughout India and the world, and their struggle has inspired many others to raise their voices. The people of Plachimada say that in a world where there is not enough safe drinking water, it makes no sense to use this precious resource to produce sweet, luxury drinks — especially if people are made sick in the process.**

International law and the right to water

Access to enough, safe water is recognized as a human right in many international laws and agreements. One of these agreements, called General Comment 15, states:

The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and to provide for consumption, cooking, personal and domestic hygienic requirements.

Other international agreements that protect the human right to water include:

- ✓ The United Nations Charter
- ✓ The Universal Declaration of Human Rights
- ✓ The Geneva Convention
- ✓ The Declaration on the Right to Development
- ✓ The Convention on the Rights of the Child

- ✓ The Stockholm Declaration
- ✓ The Mar del Plata Action Plan
- ✓ The Dublin Statement
- ✓ Agenda 21
- ✓ The Millennium Declaration of Johannesburg
- ✓ The European Council of Environmental Law
- ✓ Resolution on the Right to Water
- ✓ The African Charter on Human and Peoples' Rights
- ✓ The Protocol of San Salvador•••••

Governments have a responsibility to protect water sources for the common use of all people. Like other rights, the right to water only exists if people use it and defend it. As water grows scarce and becomes a source of ongoing conflict around the world, communities, governments, and international agencies need to work hard to defend the right to water for today and for the future.

LESSON 12**

Developing a plan for community water security

When people have raised community awareness about the problems they face in meeting their water security needs, they are ready to take the next step. Communities can work together to plan for water security.

Women must have a role in planning for water

Women may have different needs for water than men. It is usually women who collect and treat water for family use, but it is often men who are in charge of building and maintaining water systems. Because of these differences in men's and women's work and needs, it can be useful to create planning activities that ensure women's participation.

ACTIVITY 2 CIRCLES

TWO CIRCLES	
This activity helps women think about their water needs and the barriers they face in meeting these needs.	Time: 45 minutes to 1 hour Materials: Large drawing paper, drawing pens
<p>☉ Step 1: Divide into groups of no more than 10 people each. Give each group drawing pens and paper.</p> <p>☉ Step 2: Each group draws 2 circles on their paper, a large circle with a smaller circle inside.</p> <p>☉ Step 3: Each person draws inside the larger circle the water, sanitation, and health-related problems that affect the whole community. Inside the smaller circle they draw the problems that affect women in particular. If a person cannot draw, she can write down her thoughts.</p> <p>☉ Step 4: Now bring all the groups together into one large group and begin a discussion.</p> <ul style="list-style-type: none"> ☉ How do the problems in the 2 circles differ? ☉ How are the problems similar? ☉ What solutions can be found for both, making sure that the women's problems receive sufficient attention? <p>This activity can also be done with men. Have one of the groups consist only of men, and have each group draw 2 small circles rather than only one. One of the smaller circles represents problems that affect women in particular and one represents problems that affect men. When the groups come back together, ask the men to consider how they can help improve conditions in the community by addressing some of the issues that affect women. This may include building toilets closer to homes, carrying water, spending more time with children, and so on. It may be more comfortable to have the women discuss their issues in private before the men discuss theirs, especially in communities where men and women may have strong differences of opinion.</p>	

ACTIVITY 2

A Water Watch to assess community water security

A Water Watch activity can help a group choose the best sources of safe drinking water. It can also help find sources of contamination now, or possible problems in the future.

A Water Watch activity can be a long process that involves the whole community and includes many of the steps in planning a water project, or it can be a shorter process done by a small group responsible for community water safety and supply. The most important thing is to listen closely to the whole community, especially those who collect and treat water every day.

How to do a Water Watch activity

1. Talk to people who use and care for the water

Is there a person or group in the community responsible for wells, pipes, or other water supply systems? Is there a person or group responsible for sanitation? Which people or groups most often collect, carry, treat, and store the water? These people or groups should be involved in the Water Watch and in any improvements to water sources.

Together with the people responsible for the water, list all the water sources in the area. Note what people say about drinking water quality and quantity. Note the work it takes to collect water and ensure that it is safe, and how much time people spend doing this work. You can ask questions like: How much water is used every day? Are different sources used for drinking, cooking, bathing, watering livestock, farming, and other needs? Is there enough water for all these needs? Is there a water source or any water storage for emergencies?

2. Make a map of local water sources and sources of contamination

A map of the community can show where the water sources are in relation to people's homes and to sources of contamination. A map should also show important landmarks such as roads, paths, houses and other buildings, farms, fields, toilets and sewer lines, and dumping sites.

3. Visit all the places where people collect water

Different kinds of water sources can have different problems and different solutions. Visit springs, wells, surface waters (rivers, streams, lakes, and ponds), and rainwater catchment sites. At each water source, start a discussion about how this water is used and if anyone suspects that it is contaminated.

SOME THINGS TO ASK TO IDENTIFY PROBLEMS OF WATER ACCESS:

- Is it hard to get to the water source?
- How long does it take to bring water home from the source?
- Does the source provide enough water all year round?

SOME THINGS TO ASK TO IDENTIFY PROBLEMS OF WATER QUALITY:

- Is the water cloudy or dirty?
- Is the water a strange color, such as red or black?
- Are there problems cooking with the water?
- Are there problems washing with the water?

INDICATORS

- Soap does not lather well in water that contains certain minerals, making it harder to clean clothes.
- Water with chemicals makes food taste bad. Rice turns brown and soft when cooked in water with high amounts of lead or other metals.
- Beans do not cook well in water with a lot of minerals and salt, but the water may be safe to drink.

SOME THINGS TO ASK TO CONSIDER IMPROVING WATER SOURCES:

- Is the source unprotected, such as an open well, ditch, or pond?
- Do people wade, wash clothes, or bathe near where water is collected?
- Are pit toilets or sewage close to the water source?
- Is there garbage in, or very close to, the water source?
- Are there snails in the water or living in the bank?
- Is there slimy green plant life (algae) growing on the surface?

INDICATORS 2

- ❖ Black or red water may have a lot of iron, which can damage pipes and cooking utensils. Red water can also be caused by other minerals, or by mining upstream.

4. Complete the map of local water sources and sources of contamination

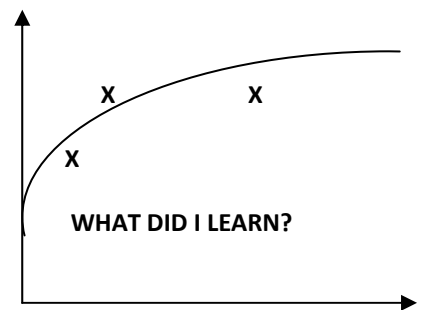
- After the visits, make changes to your map to reflect what was learned. Safe water sources and contaminated sources may be marked in different colors, new sources of contamination can be added, and so on. You may need to make a new map that can be used to assess changes in water sources in the future.
- A Water Watch can lead to different kinds of action depending on what problems are found and what the community decides to do.

✱ ☆ ✱ ✱ ☆ ✱ ✱ ☆ ✱

SOURCES**: Hesparian Foundation's publication(Water for life) under the UNDP

PROCESS SHEET DAY 1(WATER)

DURATION	MEDIA/MATERIAL	TOPIC	ACTIVITIES	EXAMPLES/REMARKS
9:15 hrs to 9:30 hrs 10:00hrs	Welcome Slide [ppt 1]	Film on water repeating Welcome, Introduction BY FACULTY and BREAKING DILLI BHARAT KA DIL	<ul style="list-style-type: none"> Participants fill registration form. Introduction and Welcome by faculty 	1. Ensure that Water reading material Is available to them. Keep a few copies ready with you. One copy of Tainer's Manual should be with the faculty. 2. Trainer IS SUPPOSED TO HAVE READ THE READING MATERIALS BEFORE COMING TO CLASS. [WATER THE ELIXER OF LIFE VOL 1] 1.
9:30 hrs to 10:hrs	Verbal+ ppt 2+ Flip chart	Expectation Sharing Response to Expectations Faculty's Expectations	<ul style="list-style-type: none"> Participant introduces their peer and giving brief about their Name, PART OF Delhi they have come and status of water supply its timing etc. sanitation in the communities they work and the general health of people. Get expectations and write them on WB/Flip Chart/paper Discuss and Response to participants expectations Explain Tutor's expectations 	Indicate the pattern on Flip chart for which the participants introduce their peer: Name Work she is doing NGO Community where working Experience of water, sanitation and health in her area. Expectations by Faculty 2. Full time Commitment

				3. Time Management 4. Willing to work individually and in Groups 5. Be open in asking questions and doubts 6. Intensive Participation
10:00 am to 10:15a m (10 min) 10:15 am to 10:25 (10 min)	Discussion Guidance on Learning Log	Talk about the course Its Objectives Course coverage and mthodolgy Learning Log and Learning Curve	Purpose: <ul style="list-style-type: none"> • Record of useful learning • Basis for individual development & learning • Evidence for assessment 	Performance  Resources LEARNING CURVE Faculty to distribute format for learning log.
10:30 to	Tea Break			

10:45 am				
10:45 am to 11:00am (15 min)	PPT slide 3-4 Talk by faculty.	Dilli Bharat ka dil About Delhi A little about slums, unique problems, study about situation in slums etc.		<ul style="list-style-type: none"> • Talk about Delhi, growing slum, water resources, facilities available in slums. • Impress upon the need for awareness due to overcrowding, inadequate facilities.
11:00am to 11:15 (15 min) To 11:30 am	PPT-5-8 Film Good drinking water	Importance of water	<ul style="list-style-type: none"> • To describe the content of water in human body and its functions • To why drinking clean water is important 	<ol style="list-style-type: none"> 1 People need water to survive, one can live up to maximum of 7 days without water 2 Show PPT 5 AND 6, and talk about the general make up of the human its functions, and importance. 3 Show PPTs 7 and 8 4 Throw question s like where does water come from ? 5 Explain water cycle 6 Show film on good drinking water (2min.30 seconds) 7 Discussion after film may include following points: <ol style="list-style-type: none"> a) What is safe drinking water? Generally clear, transparent, colourless and odourless is good. But that is not enough. b) It may have disease causing germs.

11:30 am to 12 'O' clock.	PPT 10-12 Discussion	Factors responsible for water shortage	<ol style="list-style-type: none"> 1. Describe sources of water in Delhi 2. To describe the factors responsible for depletion of water 	<p>Part I</p> <ol style="list-style-type: none"> 1. Show PPT 10 2. Ask the participants to discuss among groups of four and list down factors responsible for water shortage (give 5 min) 3. Ask one of the group members to tell the factors <p>Part II</p> <ol style="list-style-type: none"> 1. Show PPT 11 2. Explain that Drinking water comes from the surface or from underground sources. 3. Surface water means lakes, rives or ponds. 4. Ground water comes from springs, wells, handpumps or tubewells. 5. Show PPT 12 6. Population increase, deforestation, inefficient way of handling or wasting water, advancement in science requires more industrial use 7. LINK it to Water Cycle.
12 pm to 12:30 pm	Activity sheet 1 Film 1 on cons Poster; Do not waste water Discussion Film (16 min) from	Conservation of water	<ol style="list-style-type: none"> 1. To list practices for conserving water individually 2. To list practices to stop wasting water individually 3. To describe practices for conserving water at community level 4. To describe practices to stop wasting water at community level 	<p>Part I</p> <ul style="list-style-type: none"> • Show Film 1 for 2 minutes • Distribute the Activity sheet1 • Ask participants to work on the sheet for 10 minutes • Display the poster and explain where water can be saved <p>Part II</p> <p>Show film2</p>

	M/o water Resouces			
12:30 pm to 1 pm	1 pot 1 glass Some haldi	Contamination of Water Activity demonstration	<p>Demonstrate the way to</p> <ul style="list-style-type: none"> ❖ To educate community on how water is contaminated through unsafe water handling practices ❖ To create awareness as to safe water handling practices and reducing water and sanitation related diseases. 	<p>Demonstration:</p> <ul style="list-style-type: none"> • Ask one of the member to rub her fingers with turmeric [haldi/rangoli] powder • Ask the member to take a glass tumbler and take water from the pot kept nearby • Ask her to drink the water. • She/He would hesitate to drink? Ask the reasons. • Link them as to how unsafe water handling practices can lead to faecal oral transmission of diseases. <p>After this</p> <ol style="list-style-type: none"> 1 Explain how water can be contaminated 2 Use PPT 13 -14
LUNCH				

2:00 pm to 2:30 pm	Follow up of demonstra tion	Activity sheet 2	<div><div><div>✓ Water is safe and clean for drinking without any contamination</div><div>✓ Prevention of faecal oral and other germs passing on to the water</div><div>✓ Reduction in diarrhoeal diseases</div><div>✓ Increased health</div></div><div><div>Follow up:</div><div>SHG members to visit each other’s house and observe the practices regarding water handling (Water pot kept above and covered, using ladle)</div><div>In the next meeting decide as to number of ladles to be bought, collect contribution regarding the same and buy them collectively and distribute or motivate community to use local materials for safe water handling.</div><div>In the subsequent meetings ask the number of members practicing them and fill them as per the format in the minutes register:</div><table><tr><th rowspan="2">DATE</th><th rowspan="2">SHG MEMBER's NAME</th><th colspan="5">WATER HANDLING PRACTICES</th></tr><tr><th>WASHPOT</th><th>FILTER WATER</th><th>COVER POT & TAKE IT HOME</th><th>WATER POT KEPT ABOVE & CLOSED</th><th>USE LADLE</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div><div>DISTRIBUTE HARD COPIES OF THE SHEET.</div></div>	DATE	SHG MEMBER's NAME	WATER HANDLING PRACTICES					WASHPOT	FILTER WATER	COVER POT & TAKE IT HOME	WATER POT KEPT ABOVE & CLOSED	USE LADLE																																																															
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2:30 pm to 2:45 pm	Recitation	Poem on water handling in Hindi	Reinforce water handling tips by way of poems	DISTRIBUTE COPIES OF POEM TO ALL PARTICIPANTS
2:45 to 3:00pm	ND case study	Allow 2 minutes to read Explain the case study	Monitoring of water quality is essential especially on three attributes <ul style="list-style-type: none"> • Physical- taste color, odour and turbidity • Chemical- hardness, pH, heavy metals and organic substances • Biological- germs like bacteria, virus etc 	1 Distribute copies of case study 2 Lead a discussion on possible factors 3 Emphasise on chemical factors 4 Show chart on disease due to contamination
3:00pm to 3:30 pm	Filtration equipment Chlorine tablets PPTs 17-18	Cleaning waters	Filtering Disinfecting Chemical treatment Different types of filters	Demonstration 1 First let the muddy water stand in the container 2 After sometime when there is some clear water . ➤ Ask some participants to take a clean white cloth and show it to the class. ➤ Ask them to place the cloth over an empty container and tie it firmly around the opening. ➤ Explain to the class where the water comes from (muddy water containing vegetation etc). Ask the participants to pour it through the cloth. Ask them to describe what they see on the cloth. ➤ Ask them to loosen the cloth and hold it, and the container, up against the light for

				<p>the class to see. Ask the other students to describe what they see and to discuss what may, and may not be retained by the cloth.</p> <p>➤ Trainer now should explain that the cloth will not be able to stop germs from the cloth.</p> <p>4. Disinfect by putting chlorine tablets</p>
Tea break				
3:45 to 4:00	<p>Activity sheet 3 and</p> <p>Activity sheet 4</p>	How much water do we use?	<p>Objective to Measure one's consumption of water</p> <p>One person needs for good health each day is:</p> <ul style="list-style-type: none"> ➤ 1 to 3 liters for drinking ➤ to 3 liters for food preparation and cleanup ➤ to 7 liters for personal cleanliness <p>to 6 liters for laundry</p> <p>Total 15-20 liters a day</p> <p>But many people are forced to manage with much less. Other needs, such as sanitation, irrigation and watering livestock often require much more water than drinking, cooking and washing.</p>	<p>Activity Sheet 3</p> <ul style="list-style-type: none"> ☛ The SHG/Community mobiliser can use the worksheet for self and the SHG members. ☛ If they cannot write the mobilize can ask them and fill the sheet herself. ☛ This will give a rough amount of water that person needs and will motivate her make efforts to secure that amount of water. <p>Activity Sheet 4</p> <p>What do we use drinking water for and how much?</p> <p>Record how much drinking water is used and what for?</p> <p>For some activities there is no need to use drinking water.</p>
4:00 to 4:30 pm	Discussion	<p>1Right to Water</p> <p>2Recapitulation</p>	It is an internationally recognized right	<p>1 Introduce the concept of Right to Water</p> <p>2 Recap the concepts covered and questions and Answers</p>
END OF DAY 1				