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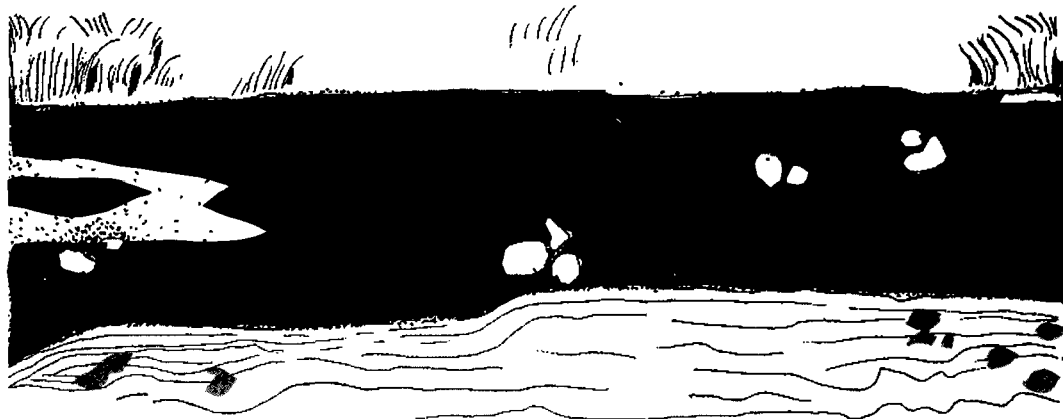


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G r o u n d

A Training Manual on Water Supply and Sanitation

**Philippine Center for Water and Sanitation -
The International Training Network (ITN) Foundation**

United Nations Children's Fund (UNICEF)

205.1 - 15858

Above Ground

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Philippine Center for Water and Sanitation -
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United Nations Children's Fund (UNICEF)

Manila
1998

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Preface

Each morning, about fifteen thousand Filipinos, mostly living in poor communities, worry about water for drinking. Many of these communities do not even have safe sources of water supply. On the other hand, communities that already have existing water supply systems are troubled with problems of sustained operation and maintenance of such facilities and keeping their supply of water safe for domestic use. To address these problems, various efforts have been laid, by both government and non-government institutions alike, to implement water supply and sanitation projects in the different communities in the country. The government, doing its part, obligates the organization of Barangay Rural Water and Sanitation Association (BWSA) as a requirement for the construction of level 1 or 2 water supply system. All other efforts have been geared towards increasing the capabilities and capacities of the people to take charge of their water supply systems. This is in recognition of the fact that, after all, the sustainability of systems for tapping groundwater for domestic consumption lies on the communities and people who are ***Above Ground***.

In view of these, the development of an appropriate training course that would support the efforts for strengthening the people's capacities on availing, owning and managing a water supply and sanitation system is imperative. This training manual is a response to such need.

Above Ground, both serves as a training course and a facilitator's guide in conducting a training program for present and potential leaders of existing and about to be formed BWSAs.

The Guide, in itself, does not attempt to be prescriptive and final. Instead, through use, it ought to be subjected to continuous review and modification to make it more adaptable to particular needs and situations of the different communities or BWSAs.

Introduction

As a guide, ***Above Ground*** seeks to assist the personnel of local government units, trainers and other development workers in facilitating the training course for existing and about to be formed Barangay Rural Water Supply and Sanitation Associations (BWSAs).

As a training course, ***Above Ground*** covers a wide range of activities for enhancing the human resources at the community that will endeavor to operate and manage a water supply and sanitation systems. These activities are specifically intended for communities that have an existing or still planning to put up and operate level 1 or level 2 water supply system. However, the course, may also be applied for areas with community-managed level 3 water supply facility.

The whole training course, which is expected to run over a period of several days, is envisioned to:

- * Identify problems and issues related to water supply and sanitation that confront the community;
- * Establish a committed BWSA through teambuilding activities; and
- * Develop the skills of the community to plan and manage their water supply and sanitation systems.

The course covers five training modules, namely: (1) EFFECTIVE LEADERSHIP AND TEAMBUILDING; (2) FRAMEWORK FOR SUSTAINABLE COMMUNITY-MANAGED WATER SUPPLY AND SANITATION PROJECTS; (3) HEALTH AND SANITATION; (4) OPERATION AND MAINTENANCE; and (5) FINANCING. Structured learning experiences, simulation exercises, and other participatory training activities comprise the above-mentioned modules. Significant portions of the modules tackle Key Learning Points, which serve as the highlights of the activities.

The modules are designed in such a way that they may be conducted all together as a complete training course. Numerous activities were developed for each module. However, each of the modules may stand on its own and can be conducted as a separate single course. A trainer may opt to choose the kind of activities that will tailor fit the training participants. An assessment of the training needs of target participants is therefore necessary to determine which among the modules are appropriate for specific groups. For potential leaders who are just about to form a BWSA, it is suggested that all the five modules be conducted in the order set by this Guide.

As facilitators for the training, aim for a minimum of 10 to a maximum of 25 participants. This number is ideal for the efficient management of the activities and also for encouraging more active participation from individual trainees. To effectively use this Guide, attendance to an Orientation for Above Ground Users is encouraged. The orientation will provide would-be facilitators a better understanding of the contents and the methods.

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Module 1: *Effective Leadership and Team Building*

Body of Water

Scratch My Back, I'll Scratch Yours

The BWSA

The BWSA Leader

In my BWSA: A Role Play

Water and Sanitation Puzzle

Problems and Solutions

Facilitation and Presentation

Body of Water

Learning objectives: To share one's characteristics, experiences, aspirations and frustrations;

To emphasize the importance of self-awareness and group sharing.

Time required: One hour

Materials needed: Bond papers, pens, crayons

Procedure:

1. Orientation

Some people are shy to express themselves in words. We are also often told that a picture speaks a thousand words. Tell the participants that the following exercise will give a person a chance to reflect on "*Who Am I*" before sharing it to a group.

2. Activity proper

2.1 Give each participant a sheet of bond paper and a pen or crayon.

2.2 Instruct the participants to form groups of 5 or 6, finding people they do not know.

2.3 Give each participant about 10 - 15 minutes to "draw a body of water" (e.g. lake, river, irrigation canal, spring, etc.) which symbolizes some experience in their past and present life, their aspirations and frustrations as well.

2.4 When they have finished, tell the participants that each person will introduce her/himself to the others in the small group. Tell them also that in introducing one's self, they have to emphasize on why did they choose a particular body of water to symbolize her/himself.

2.5 Instruct each person to take responsibility for introducing one other person from their small group to the whole group (e.g. A introduces B, B introduces C, C introduces D,

etc.). When they come to the large group, each person has 1 minute to introduce that person to the whole group.

3.6 What will happen if people are aware of themselves and are willing to listen to other people's experiences in life?

3. Discussion Points

Ask the participants these questions:

- 3.1 What made it easy/difficult for you to choose a particular body of water to symbolize yourself?
- 3.2 How did you feel when you shared your experience, aspirations and frustrations within the small group?
- 3.3 How did you feel while listening to other people's sharing?
- 3.4 What new things about yourself did you discover?
- 3.5 What lessons did you learn from the activity?

4. Synthesis and Integration

4.1 Summarize learnings and elaborate on the Key Learning Points.

Key Learning Points

- * Looking back at our own experiences in life makes us more aware of ourselves and enable us to evaluate our actions and learn from them.
- * Sharing of experiences makes people understand each other and helps foster a more harmonious relationship among them.

Scratch My Back, I'll Scratch Yours

Learning objective: To practice giving effective feedback.

Time required: One hour

Materials needed: Papers, pens, tape

Procedure:

1. Orientation

1.1 Tell the participants that poorly given feedback can break one's heart while an honest and positive one can warm it.

1.2 Ask if they have already found something good about their co-participants.

1.3 Tell them that this activity will allow them to give positive feedback to others.

1.4 Review briefly characteristics of effective feedback.

2. Activity Proper

2.1 Provide each participant with a paper and a pen.

2.2 Instruct them to stand up and tape the paper they are holding at the back of the person next to them. Then make them move around and choose at least four other persons they would want to give positive feedback to. Ask them to write their

feedbacks and put their signature on the paper pasted at the back of the persons they have chosen. Time: 10 minutes.

2.3

When time is up, let them get back to their seats without removing the paper at their back for at least 15 seconds.

2.4

Then let them read silently the feedback given to them.

3. Discussion Points

3.1

How were you able to write your feedback to others?

3.2

What did you feel while someone was writing a feedback at your back? while writing a feedback at somebody's back?

3.3

What did you feel while waiting for the instructions to read the feedback written at your back?

3.4

What feedback struck you most?

4. Synthesis and Integration

4.1

Ask about ways of giving positive feedback within their families or communities.

4.2

Summarize the activity. Emphasize the feelings involved in giving and receiving effective feedback.

The BWSA

Learning objectives: To clarify the meaning of BWSA and the purpose of organizing it;

To share experiences in managing the BWSA.

Time required: One hour

Materials needed: Blackboard, chalk, two sets of cartolina cut into pieces with words comprising the BWSA definition, masking tape, and sheets of paper

Procedure:

1. Orientation

1.1 Tell the participants that one thing brings them all together in the workshop and that is the BWSA. Ask them what they understand about the real meaning of BWSA.

1.2 Tell them you are going to test

their understanding of the BWSA.

2. Activity Proper

2.1 Divide them into two groups and assign designated seats.

2.2 Distribute the pieces of cartolina to each group.

2.3 Instruct them to form the meaning of BWSA taped in a sheet of paper.

2.4 Give at least 5-10 minutes for the task depending upon their knowledge level.

2.5 Rearrange the words to form the meaning of BWSA.

2.6 Ask the following questions:

- How did you form the words in your group?
- What caused disagreements and how did you manage them?

- 2.7 Explain the definition of BWSA by elaborating on the meaning of the key words in the definition.
- 2.8 Explain the purpose of organizing the BWSA.
- 2.9 Brainstorm on the issues surrounding the BWSA, its organizational and technical aspects.
- 2.10 Connect the responses with arrows showing which responses are the effects of another. Ask volunteers to draw the arrows. The output will show which among the responses is the root of most of the issues given.
- 2.11 Emphasize the importance of proper management of the BWSA, including the collection of monthly dues, in order to achieve better water supply and sanitation systems.
3. Discussion Points
- Ask the following questions:
- 3.1 What lessons did you learn from the activities?
- 3.2 How is your understanding of the BWSA now compared to what it was before?
4. Synthesis and Integration
- 4.1 Summarize briefly the whole topic.
- 4.2 Ask the participants:
- Among the issues enumerated earlier, which of them can you or your fellow officers do something about? How?
- 4.3 Thank the participants and proceed to the next topic.

The BWSA Leader

Learning objective: To discuss the qualities of a good BWSA leader.

Required time: One hour and 30 minutes

Materials needed: Black board and chalk, sheets of Manila paper, crayons, and at least 10 pictures or cut outs of local and international leaders

Procedure:

1. Orientation

- 1.1 Instruct the participants to stand up and move around to check the pictures posted on the walls.
- 1.2 Ask them who among those in the pictures they admire most. Get their reasons why. Ask them what those people have in common.
- 1.2 Review the meaning of BWSA by asking some volunteers to define it.

- 1.3 Explain that a BWSA, being an organization or a team, needs a set of leaders. Ask about the characteristics of a good BWSA leader. Record all the responses on the board.

2. Activity Proper

- 2.1 Divide the participants into small groups consisting of at least five members each.
- 2.2 Distribute the materials to each group. Give these instructions:
 - a. Draw two crossing lines to divide the Manila paper into four equal quadrants.
 - b. In each quadrant, draw a person resembling a BWSA leader in action, depicting the characteristics of an ideal BWSA leader.
 - c. Write the characteristic or description of good leadership below the drawing.

- d. Post outputs on the board. feel are or will become good leaders.
- e. Choose a reporter to present the group output. Each group will report four characteristics.
 - b. Opposite the names of those persons should be the characteristics that they possess that make or will make them good leaders.
 - c. If those people they listed are potential leaders of the BWSA, ask the participants as to how they can convince the former to display their leadership.

2.2 Get back to their ideas of a good BWSA leader given earlier and compare to the just reported outputs.

3. Discussion Points

Ask the following questions:

- 3.1 How did your group decide on a set of outputs?
- 3.2 What made it easy/difficult for you to choose the characteristics of a good BWSA leader?
- 3.3 Being present or future BWSA officers yourselves, what do you feel about the expectations from you being leaders?

4.3 Tell the participants that some persons they have listed may have already been serving as BWSA leaders and are actually attending the present training. In this case, instruct them to share before the group the names of those persons highlighting the characteristics that make them good BWSA leaders.

4.4 Instruct the participants to write their own personal characteristics that make or would make them good BWSA leaders. Ask for a few volunteers to share.

4. Synthesis and Integration

- 4.1 Elaborate on the Key Learning Points and give appropriate examples.
- 4.2 Instruct the participants to write the following in their workbooks:
 - a. The names of at least five individuals in their community who may be members/officers of BWSA whom they strongly

4.5 Summarize the whole activity underscoring the participants' important role as leaders in owning, maintaining and managing the BWSA.

Key Learning Points

LEADERSHIP is a process of stimulating and aiding groups to determine or accept common goals, and to carry out effectively the measures leading to the attainment of these goals.

A LEADER is ... a person who leads a group in attaining a set of goals and objectives.

A BWSA LEADER is .. a person who leads his or her members in the management of the BWSA. He/she easily gives assistance when needed but may withdraw when group members are able to provide the needed leadership themselves.

A good BWSA leader must be...

- a respected member of the community;
- aware of the community needs and issues;
- genuinely willing to serve people, specifically the BWSA members;
- capable of getting his/her members to recognize him/her, to understand what he/she is trying to do and to follow his/her advice; and,
- a person with a coherent set of human values which sees each person as an individual with dignity.

A good BWSA leader must have skills in :

Communication

has the ability to express himself/herself and listen effectively;

Organization

can easily mobilize people systematically to perform tasks for the BWSA;

Problem-Solving and Decision-Making

can analyze carefully the issues and give quick decisions; and

Planning and Evaluation

can plan effectively and set clear indicators for evaluation

Roles of a BWSA Leader

Motivator - encourages members to participate in activities;

Initiator - takes the lead in implementing useful activities for the BWSA;

Facilitator - aids in the development of ideas among BWSA members in the spirit of participation and cooperation;

Organizer - systematically organizes people and events that contribute to the attainment of BWSA objectives.

In My BWSA : A Role Play

Learning objective: To practice giving and receiving effective feedback.

Time required: One hour and 30 minutes

Materials needed: Black board, chalk and at least two extra chairs as props

Procedure:

Before the start of the session, select two pairs of role players. Brief them about how they are going to portray their characters. Refer to Scenarios 1 and 2.

1. Orientation

- 1.1 Ask the participants to share about a comment or criticism they received that most affected them adversely. If they cannot share any, ask what made it the worse for them.
- 1.2 Ask them on what conditions can they give or receive feedback.

2. Activity Proper

- 2.1 Review the meaning of effective communication emphasizing the importance of feedback.
- 2.2 Refer to the Key Learning Points for the meaning of feedback and the proper ways of giving and receiving them.
- 2.3 Explain that they are about to witness a scene where feedback giving and receiving are demonstrated. They are supposed to observe and comment on the conditions by which feedback are given and received. Add that the following scenario can happen in the community especially within the BWSA.
- 2.4 Brief the participants about what to observe.

For both scenarios, the participants should observe the following:

- a. The atmosphere at the start and during the discussion among the characters;
- b. Facial expressions, tone of voice and body language of characters;
- c. Type of feedback given; and,
- d. How the confrontation ended.

- 2.5 Call on the role players for scenario no.1 and give a short background. Start the role play.

Note: Process one scenario after the other using the discussion points. Synthesize only after both scenarios have been played.

- 2.6 After presenting each scenario, ask the participants about their observations.

3. Discussion Points

Ask the following questions:

- 3.1 For the role players : What made you act the way you did? How would you have reacted in real life?
- 3.2 For the observers: What could you have done or said if you were the characters?
- 3.3 What did you learn from the role plays?

List down the responses.

4. Synthesis and Integration

Ask the following questions:

- 4.1 If you are to look back to your BWSAs now,

who is the person you need to give effective feedback to? How are you going to do it?

4.2 Summarize the whole activity and proceed to the next topic.

Training Tools

Scenario 1

Characters:

Mang Fernando - BWSA President
Mang Rick - Caretaker and Mang Fernando's *kumpadre*
Aling Cely - BWSA Treasurer/Collector

Mang Fernando has been the president of the BWSA for more than a year. Their BWSA was organized by the group of people from the municipal government but the former never underwent any training about managing the organization. Nonetheless, the officers are enthusiastic to run it by themselves. Mang Fernando went to Manila for one month to visit his daughter, and when he came back to his barangay, he learned from some members of the association that:

1. One of the two handpumps of the BWSA has been dysfunctional for two weeks already. Not

enough water comes out of the pump and strange sounds can be heard from it when used. They called Mang Rick the Caretaker to check it out but he refused to repair it because, according to him, he has no tools and the Barangay Captain should do something about it instead.

2. The treasurer, Aling Cely, has not been collecting service fees from the members for two months already. Mang Fernando called on both BWSA officers to clear the matter with them.

HOW WILL GIVING AND RECEIVING FEEDBACK TAKE PLACE AMONG THEM?

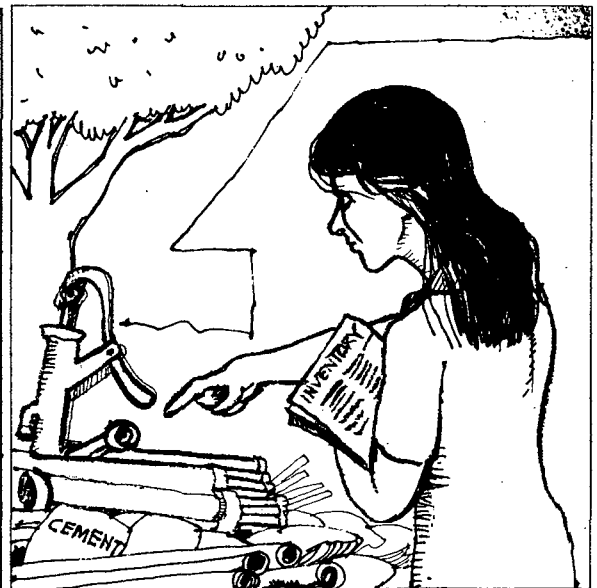
Scenario 2

Characters:

Three BWSA members
Mang Ernesto - BWSA President

Problem:

About a BWSA President whose characteristics are not suitable for a head of an organization. The members have decided to confront him about his misgivings. In this scenario, the burden of giving effective feedback rests on the three BWSA members.



Key Learning Points

FEEDBACK is information given or received from another person that is meant to:

Clarify issues or correct misconceptions or wrong perceptions.
Keep relationships healthy and growing
Enhance work behavior

Why is Feedback Important?

It expands awareness.
Verifies self-concept
Increases one's sensitivity of impacts on others
Strengthens relationships
Enhances group productivity and efficiency.

FEEDBACK CAN BE...

CONSTRUCTIVE

DESTRUCTIVE

Motive is positive: to help, assess or build.

Motive is negative: to embarrass, put down or get even; to meddle or win an argument.

Touches on behavior or performance that is modifiable

Touches on something that receiver can hardly or cannot do anything about.

Something that concerns the giver; solicited, expected by the receiver.

You have no business being involved, saying anything that does not concern you.

It is described. Behavior is specifically what, when, how, how often, where.

It is judgmental, evaluative, described as impressionistic

Specific.

General.

Uses "I" messages: more of one's feelings and reactions rather than a judgment or accusation.

Uses "YOU" messages: blames, accuses or pinpoints the receiver.

Given at the right time and place.

Given at an inappropriate time and place.

Fairly recent.

It is in the distant past.

Maintains the worth and self-esteem of the person.

Lowers the self-esteem of the receiver through verbal and non-verbal messages.

Allows time for clarification.

It is one-way, imposed, told and given for one's compliance.

The WATSAN Puzzle

Learning objective: To demonstrate the importance of teamwork in building effective teams

Time required: One hour

Materials needed: Picture puzzles on water supply and sanitation; blackboard and chalk

Procedure:

1. Orientation

- 1.1 Ask the participants what they think are important factors in owning, managing and maintaining the water supply and sanitation systems in the community. List down responses.
- 1.2 Add that if the BWSA is composed of people with the objective of effectively managing the BWSA, "what do they need?". Brainstorm on the responses until teamwork or cooperation is given.
- 1.3 Ask about ideas regarding a team and teamwork.
- 1.4 Tell the participants that they are about to experience being members of a team.

2. Activity Proper

- 2.1 Divide the participants according to the number of available puzzles.
- 2.2 Provide each group with a puzzle placed inside an envelope but instruct not to start yet until told. Allow the groups to view the picture for 30 seconds and one minute to discuss what to do.
- 2.3 Instruct the groups to start working on the puzzles by putting the pieces together on the walls.
- 2.4 Judge which puzzle is best formed at the shortest time possible.

3. Discussion Points

Ask the participants:

- 3.1 What was your plan to achieve your objective in the shortest possible time?
- 3.2 What actually happened?
- 3.3 What did you feel about your performance? Why?
- 3.4 (For the concerned groups) What were the factors that facilitated or hindered you in

solving the puzzle on time?

3.5 What did you learn about teamwork in this activity?

4. Synthesis and Integration

4.1 Discuss the Key Learning Points.

4.2 Ask the following questions:

- In what activities in the community or in the BWSA is teamwork needed?
- What will you do as a BWSA officer to enable your members to cooperate in the activities of the BWSA?

Key Learning Points

A **TEAM** is ...

a group of people working together towards the achievement of a task or sets of objectives

A TEAM IS EFFECTIVE IF THE FOLLOWING ARE PRESENT:

Mutual Trust

Trust takes a long time to build and can be destroyed quickly.

Trust enables team members to feel free to express their opinions, feelings about issues and to ask questions for the good of the team

Mutual Support

This results from group members having genuine concern for each other's job welfare, growth and personal success.

A member need not waste time and energy protecting himself or his function from anyone.

All will give and receive help to and from anyone.

All will give and receive help to and from each other in accomplishing the team's objectives.

Genuine Communication

Communication has two dimensions: the quality and openness and authenticity of the member who is speaking, and the quality of non-evaluative listening by other members. It happens when mutual trust and support are so well-established where no member feels he/she has to be guarded or cautious about what he/she says.

Members of the team don't "play games" with each other such as by asking "trap" questions or suggesting wrong answers to test the other's integrity.

Listening is very important in effective communication.

Effective Conflict Management

Conflicts may frequently happen in a team and it is normal.

Conflict is normal, natural and an asset, since it is from conflict that most growth and innovation are derived.

Conflict resolution is a group process, not just a task for the leader or manager.

Mutual Respect for Individual Differences

A good team will not demand unnecessary conformity of its members.

The individual member should be free to ask advice from the other members who, in turn, will recognize that he/she is not obligated to take the advice.

A good team delegates within itself.

In a well-established team with a high mutual trust and support, the leader or member will be able to make a decision which commits the team.

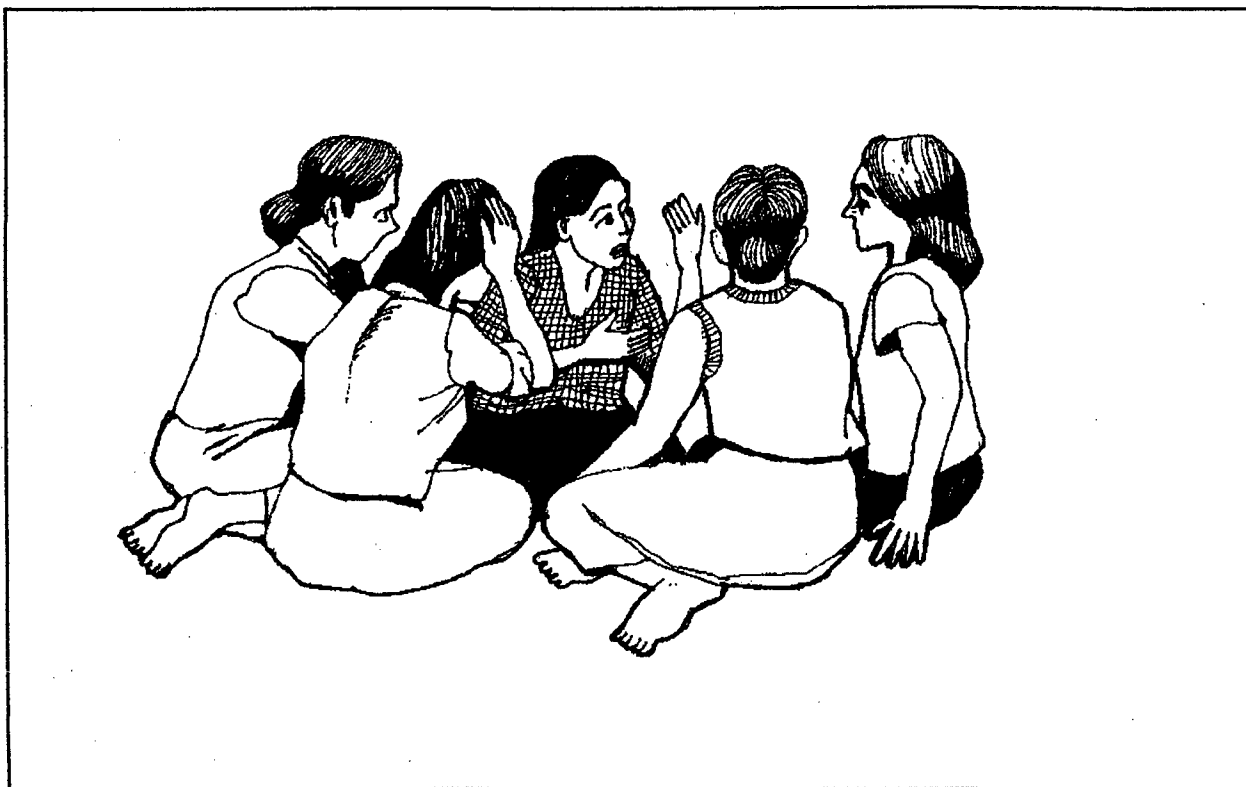
A GOOD TEAM LEADER IS SOMEONE WHO SETS A GOOD EXAMPLE TO HIS/HER MEMBERS AND BELIEVES THAT HE/SHE IS NOT SUPPOSED TO DO THE JOB ALONE NOR MERELY GIVE ORDERS ABOUT WHAT SHOULD BE DONE BUT SHOULD ENCOURAGE COOPERATION. HE/SHE SHOULD BELIEVE THAT TRUST, SUPPORT, RESPECT AND GOOD COMMUNICATION AND EFFECTIVE CONFLICT MANAGEMENT MAKE UP AN EFFECTIVE TEAM.







Problems and Solutions



Learning objective: To increase the analytical ability of participants to solve their own problems.

Time requirement: Two hours

Materials needed: Ten drawings depicting problem or non-problem situations on water and sanitation, Manila paper, pentel pens, blackboard, chalk

Procedure:

1. Orientation

- 1.1 Ask the participants whether they agree that in implementing

water and sanitation activities, as well as in managing the BWSA, there will always be problems along the way. For participants who answer positively, ask them about examples of problems that they may encounter (or have already encountered) regarding water and sanitation in their communities.

- 1.2 Brainstorm on the meaning of "PROBLEM". Refer to Key Learning Points for the definition.

- 1.3 Tell the participants that you are going to show them a set of pictures and they have to

decide which among them are considered problems on water and sanitation in a community.

2. Activity Proper

- 2.1 Show the pictures one by one, allowing the participants to label each whether it depicts a problem on water and sanitation or not. Ask for their reasons for saying so.
- 2.2 Post the pictures which the majority considered as depicting problems.
- 2.3 Call on the small groups formed earlier on the topic *Characteristics of a Good BWSA Leader*. Give the small groups the following instructions:

Objective:

To describe a problem on water and sanitation and enumerate corresponding causes, effects and solutions.

Instructions:

1. Choose one among the posted "problem" pictures.
2. Discuss and enumerate all possible causes and effects of the problem (preferably in order) and the ways how can the BWSA solve it.

3. Have the Manila paper divided into three columns. Label each column accordingly as **Possible Causes, Effects and Solutions**. Write the results of the group discussion under corresponding columns.
4. Choose a reporter to present group output.
Discussion: 20 minutes
Presentation: 5 minutes per group

Key Learning Points

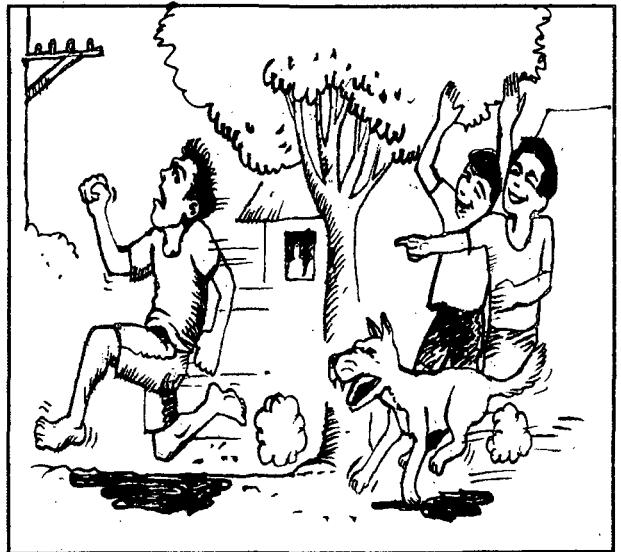
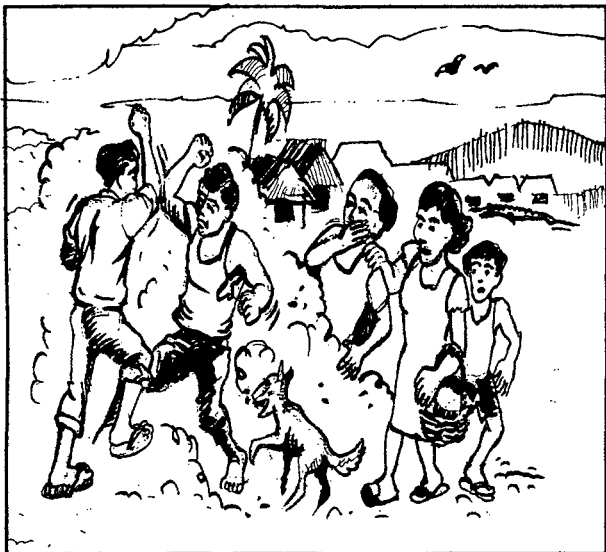
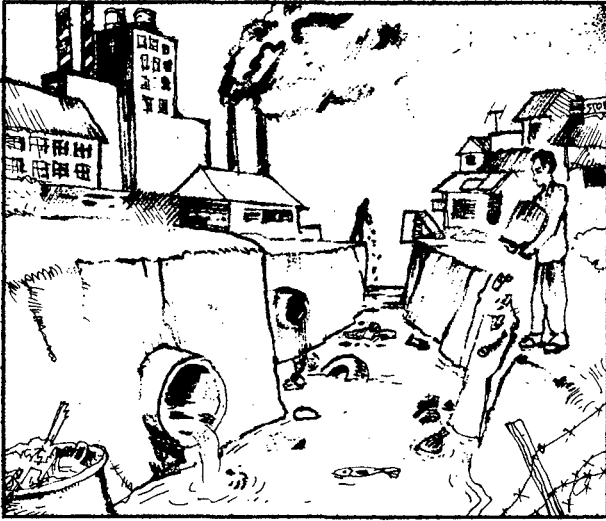
Just what is a PROBLEM ?

A problem is ... basically a dilemma with no apparent way out;

an undesirable situation without a solution;

a question that cannot be currently answered or explained.

Training Tools



Outline for Effective Problem-Solving and Decision-Making

Process

Result

I. Problem Definition Process

1. Recognition

Discuss and document individual views, proven facts, and symptoms until everyone involved accepts there is a problem.

Agreement that an issue needs resolution.

2. Label

Clearly document both sides of the conflict you want to resolve.

An agreed-upon statement of the problem.

3. Analysis

Find and agree on the fundamental source of the problem.

Unanimous identification of the root cause of the problem.

II. Solution-Decision-Making Process

4. Options

List all alternative strategies that have the chances to solve the problem and its root cause.

A complete list of possible solutions.

5. Decision- making

Choose the best solution on your list by objectively evaluating the optional strategies.

A firm joint decision on the chosen solution.

6. Action Plan

Organize systemic steps of tasks, timing, and resources to implement the decision in the real world.

A complete step-by-step road map to translate the decision to reality.

Facilitation and Presentation

Learning objective: To demonstrate effective presentation and facilitation skills in mobilizing the community, solving problems and/or providing information.

performance of such responsibilities requires skills that could be acquired through practice.

Time required: Three and a half hours

1.4 Tell them that the succeeding activity will enable them all to practice speaking before a group.

Materials needed: Indigenous materials found within the premises of the training venue, colored pens, lead pencils, crayons and sheets of paper

2. Activity Proper

2.1 Divide the participants into four groups.

2.2 Give the following instructions:

Procedure:

1. Orientation

1.1 Ask the participants about the qualities that they like about speakers or facilitators.

1.2 Ask who among them have had the experience of presiding over meetings or conducting a lecture anywhere. Those who have, ask them about their difficulties and ease in doing so. For those who have not yet tried, tell them that being BWSA leaders, part of their responsibilities are interacting with the members, presiding over meetings, facilitating discussions, planning activities, etc.

1.3 Explain that effective

1. Draw lots to present the following topics:

a. In a barangay assembly, you are instructed by your barangay chairman to discuss the importance of forming a BWSA.

b. You are addressing all the BWSA members to encourage them to pay monthly dues.

c. You are tasked to educate the BWSA members on the proper use and maintenance of the water supply and sanitation facilities.

d. Your BWSA is not yet formed but as potential

leaders, you are leading the planning session for its formation.

2. Tell each group to discuss how they will present their topic using simple visual aids and tips on effective presentation and facilitation.

3. Non-presenting groups should comment on the ways the topic was prepared and handled by the group.

3. Discussion Points

Ask the following questions :

3.1 How did you come up with your sub-topics and speaking assignments?

3.2 What did you feel while facilitating the group?

4. Synthesis and Integration

4.1 Ask the participants about the lessons they learned from the activity.

4.2 Instruct them to write in their workbooks any issue they feel they need to discuss with their respective communities or BWSAs. Tell them to develop an outline for presenting the issue/s they thought of.

Module 2:

Framework for Sustainable Community-Managed Water Supply and Sanitation Projects

Gap Between People and Planners

Sustainability Aptitude

Water and Sanitation Artworks and Key Words

Hardware and Software Mix

Objective Setting

Impertinent Pert Chart

Go to the Next Chapter

Water Walk

Mural on Community Participation

Good, Bad and In Between

Women, Water Supply and Sanitation

Gap Between People and Planners

Learning objective: To create an awareness of the need to encourage greater participation from BWSA members.

Time required: One hour

Materials needed: Six large illustrations about the implementation of water supply and sanitation projects

Procedure:

1. Orientation

Ask the participants:

- 1.1 Have you ever actively participated in the planning of a certain project? How have you participated?
- 1.2 In what ways can you actively participate in the implementation of a water supply and sanitation project?
- 1.3 Why should you be part of the planning process?

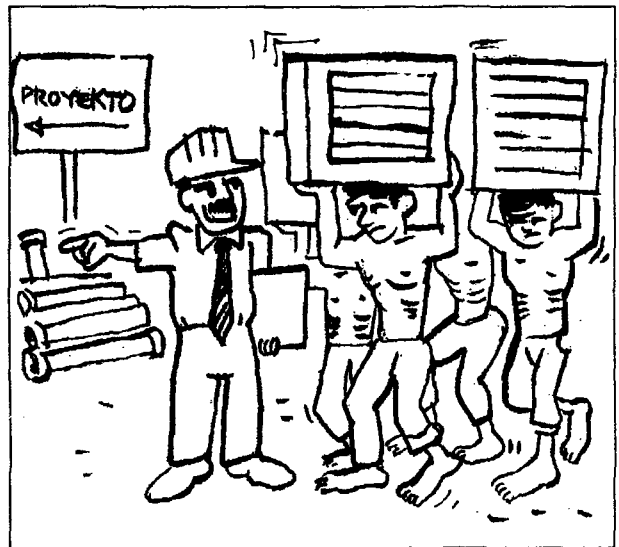
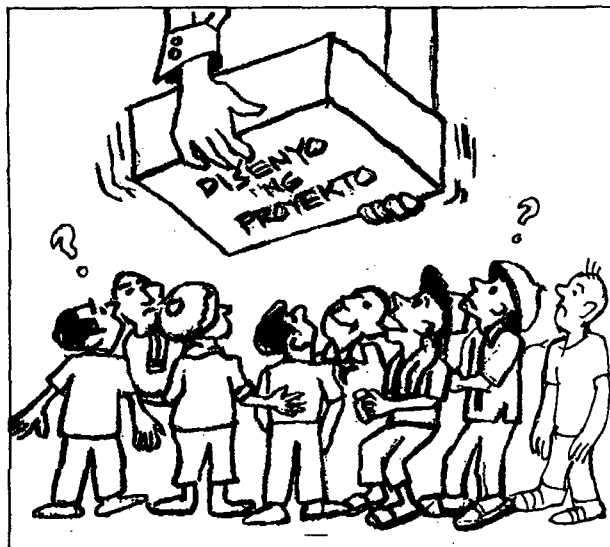
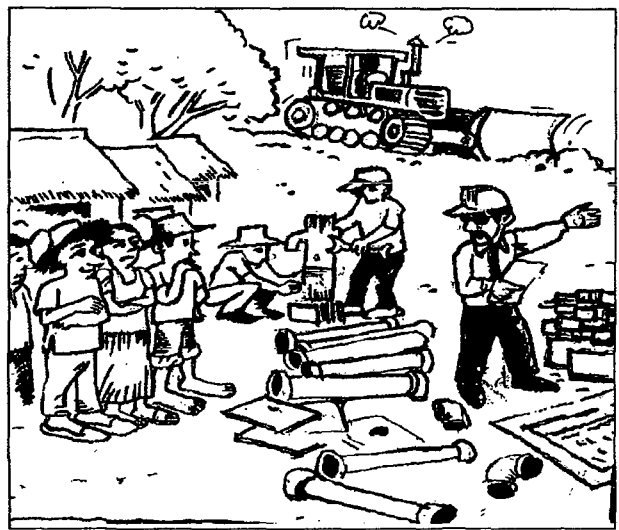
Summarize the answers and emphasize common points brought out. Define briefly the meaning of participatory planning by referring to the Key Learning Points.

Key Learning Points

In the participatory planning of community-managed water supply and sanitation projects, local people:

- identify their problems and needs and make informed decisions regarding what should be done and how it should be done.
 - undergo a process of working together to overcome problems and to gain control of their lives.
 - recognize conflicts of interests both inside and outside their community.
 - understand that real participation is a partnership approach which involves sharing of information, consultations, discussions and negotiations. Externally developed ideas are not imposed.
- ### 2. Activity Proper
- 2.1 Tell the participants that you are about to show them different illustrations about the

Training Tools



- implementation of water supply and sanitation projects. Proceed to show them the large illustrations from the Training Tool.
- 2.2 After each picture has been shown, ask each participant if the community was involved in the planning process.
- 2.3 Ask the participants to further explain their answers.
- For example:
- In illustration 1, do you see people working on a water project? Who do you think are they? Are there other people in the picture? Are they doing something? Can you further explain your answer?
3. Processing
- Ask the participants:
- 3.1 As leaders and members of the community, how did you relate to the illustrations and the characters presented?
- 3.2 What hinders people from participating in planning and implementing a water supply and sanitation project?
- 3.3 How can people be more involved?
4. Synthesis and Integration
- 4.1 Review briefly the definition of participatory planning by referring to the Key Learning Points
- 4.2 Ask the participants how best they can enhance the participation of community members in activities concerning water supply and sanitation.
- 4.3 Summarize briefly the whole topic. Emphasize the learnings and their practical applications.

Sustainability Aptitude

Learning objective: To be able to define the meaning of sustainability of a water supply and sanitation project.

Time required: 45 minutes

Materials needed: Copies of the *Sustainability Aptitude Test*, pencils, black board and chalk

Procedure:

1. Orientation

- 1.1 Tell the participants that the succeeding activity will make them evaluate whether or not a project, condition or a reality will last. Give some definitions of sustainability. Refer to the Key Learning Points.

Key Learning Points

Sustainability

is the continuation of benefits to people with or without the programs or organizations that stimulated those benefits in the first place.

Sustainability

is a continuous process which involves organizational

strengthening of a unit or an entity managing it where there is coordination at various levels and strong support from various stakeholders.

Sustainable development

refers to the ability to meet the needs of the present generation without jeopardizing the ability of future generations to meet their own needs.

2. Activity Proper

- 2.1 Tell the participants that you are going to give them an aptitude test on sustainability. Refer to the Training Tool.
- 2.2 Distribute the test papers and give the participants 10 minutes to answer the questions.
- 2.3 After completing the test, ask some participants about their answers to each question.
- 2.4 Summarize the answers.

3. Discussion Points

Ask the participants:

- 3.1 When do you say that a project or an event is sustainable?

- 3.2 As officers or members of the community, can you relate the definitions of sustainability to your projects?
- 3.3 What are the factors that contribute to the sustainability of a project?
- 3.4 What realities do not contribute to the sustainability of your

project? How can these be addressed?

- 3.5 How can the community members work towards making their water supply and sanitation services more sustainable?

Summarize the answers and discuss the *Factors Affecting Sustainability* by referring to the Key Learning Points.

SUSTAINABILITY?

**ANO KAYA
IYON??**



Key Learning Points

Factors Affecting Sustainability

- * Perception of stakeholders regarding water supply and sanitation. (Water supply and sanitation is not just a construction facility but more of a service delivery system.)
- * Availability of skills at the local level to manage the water supply and sanitation facility.
- * Critical support from the stakeholders.
- * Availability of spare parts of water supply facility.
- * Relationship of the community with national and local government agencies.
- * Systems and processes that the community can make use of to sustain the water supply and sanitation services.

4. Synthesis and Integration

- 4.1 Review briefly the definition of sustainability of water supply and sanitation services.

Training Tool

Sustainability Aptitude Test Questionnaire

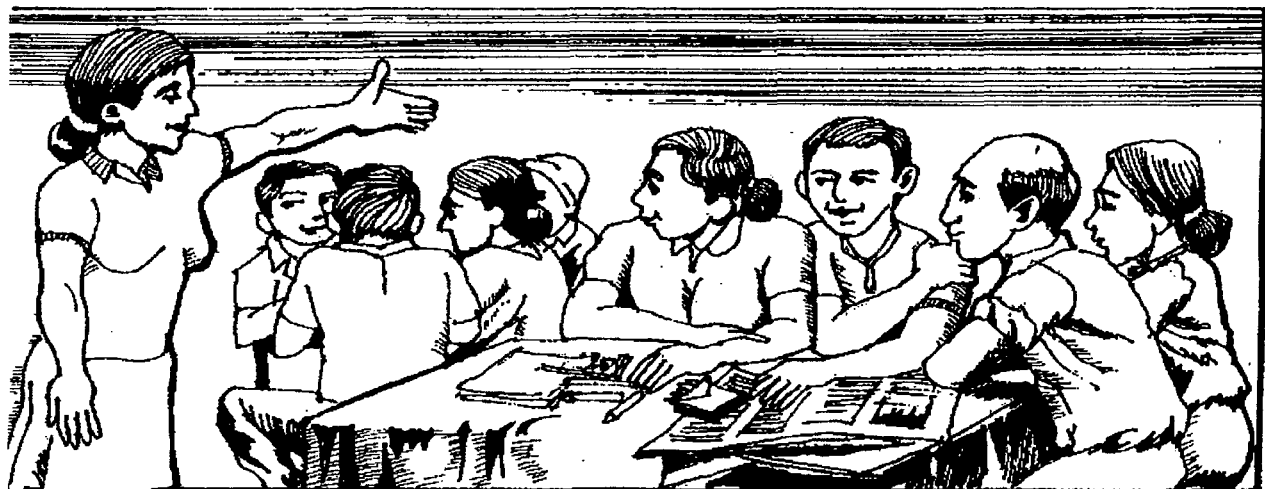
In a scale of 1 to 5, rate the following items (5 being the most sustainable and 1 the least sustainable). In the space provided after each item, state your reason for giving the corresponding rating.

- 1. A movie house in the municipality
- 2. A park in the poblacion
- 3. A water delivery business in the community
- 4. A paid banca ride (P10.00) in your municipality
- 5. A rain water catchment beside the municipal hall
- 6. A municipal market where vendors pay a monthly fee of P500

Note:

Depending on the realities of the community, the facilitator may adopt other conditions to be rated.

WATSAN Art Works and Key Words



Learning objective: To present key concepts on sustainable community-managed water supply and sanitation services

1.2

Ask the participants these questions:

- What comprise a water supply system?
- How can you manage your water supply system properly?

Time required: One hour

Materials needed: Blackboard and chalk, crayons, colored papers, old newspapers, bond papers and other materials readily available in the training site

1.3

Summarize the answers.

2. Activity Proper

Procedure:

1. Orientation

- 1.1 Tell the participants that water is a finite and vulnerable resource and needs to be managed properly.

2.2

Divide the participants into groups composed of four members. Allow each group to have enough space.

2.3 When the groups have settled, tell them to make an art work using available materials to show their concept of WATSAN.

2.4 After 20 minutes, ask each group to post their work in front. Ask another group to interpret the creation of the other groups.

2.5 Match the concepts with the effective interpretation of the artwork.

3. Discussion Points

Ask the participants:

3.1 What are the factors that contribute to sustainable community-managed WATSAN based on the artworks?

3.2 What are the realities in your community that promote WATSAN?

3.3 What factors hinder achieving community-managed WATSAN?

Summarize the answers of the participants and present the aspects required for a sustainable community - managed WATSAN by referring to the Key Learning Points.

Key Learning Points

Water Supply Systems

Level 1 (point source)

A protected well, a rainwater collector or a developed spring with an outlet but without a distribution system. Adaptable for rural areas where houses are thinly scattered. Generally serves an average of 15 households not more than 250 meters from the point source. The capacity is usually 20 liters/capita/day.

Level 2 (communal system faucets or standpipes)

A system composed of a source, a reservoir, a piped distribution network, and communal faucets. Usually one faucet serves 4-6 households. Suitable for rural and urban areas where households are clustered densely enough to justify a simple piped system. Designed access is normally restricted to houses not more than 25 meters from the communal faucet. The capacity is usually 60 litres/capita/day.

Level 3 (waterworks system, household connection)

This water system has a source, a reservoir, and a piped distribution network for household taps. Generally suited for densely populated areas. Households have individual service connections from the system. The capacity of this water system is usually 100 litres/capita/day.

Sustainable Community-Managed WATSAN Strategies

Integrated Water Resources Development and Management (IWRM)

- considers the entire ecosystem, its resources and their interrelation with other resources;
- attaches a value to water and ensures that people have access to it, that it is protected against exploitation, over extraction, pollution and other forms of abuse;
- involves people, especially women, who play a central role in water management.

Community Organizing (CO)

- educates people to understand their existing situations;
- organizes people to act collectively and efficiently on their problems and needs;
- mobilizes people to develop their capabilities and readiness to respond and to take action on their immediate needs towards solving their long term problems.

Essential Resources from the Community

Materials:

ensure that spare parts are available in case of breakdowns;

Mind:

knowledge and skills to manage the water system in a viable manner;

Manpower:

the right people to execute the different tasks required in the operation and maintenance of the water system;

Means:

Are community members willing and able to pay for the water supply?

Moment (time):

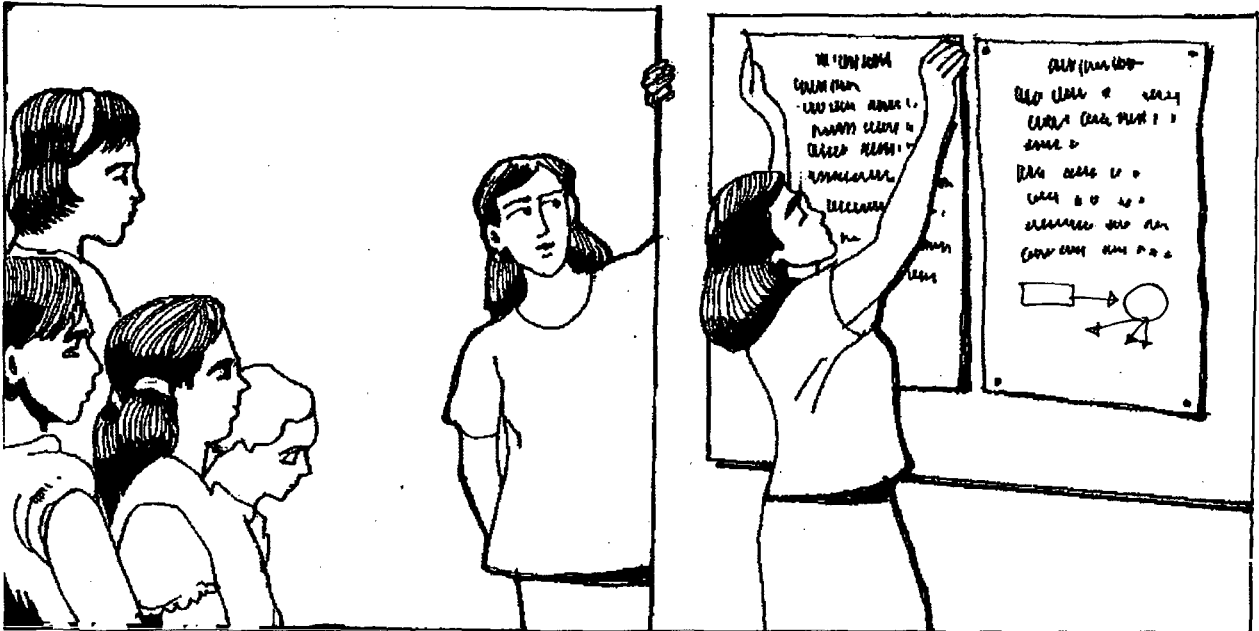
Are people willing to provide time to execute the different tasks required in the operation and maintenance of the water system?

4. Synthesis and Integration

4.1 Briefly review the main components of WATSAN.

4.2 Summarize briefly the whole topic. Emphasize the learnings and their practical applications.

Hardware and Software Mix



Learning objectives: To create awareness of the value of including software concerns in hardware plans and vice versa;

To emphasize the need to promote people's participation in the implementation and management of water supply and sanitation projects.

Time required: 45 minutes

Materials needed: List of hardware and software components, individually cut horizontal board, scotch tape and scissors

Procedure

1. Orientation

- 1.1 Tell the participants that water supply and sanitation have both hardware and software components.

Key Learning Points

Two Components of a Water Supply System

Hardware

refers to the infrastructure or the system itself.

Software

pertains to the organization and the management of the system.

2. Activity Proper

2.1 Divide the participants into four groups. Balance the composition of the groups with those who have and do not have knowledge of both hardware and software components of WATSAN.

2.2 Let each group list activities associated with WATSAN. Each activity is to be listed in a pre-cut cartolina. Tell the participants that the group with the most number of activities listed wins. Have the groups post the list of activities on the board or on the wall.

2.3 Check the list of activities for correctness and completeness. You can do this together with the participants.

Note: A variation of this activity is to have participants do the following:

- a. Distribute the typed lists to the four groups. Allow time for them to read the instructions. Refer to the Training Tool.
- b. Explain that the two hardware groups should cut apart not only the typed hardware list but also the software list.
- c. Ask them to rearrange the items cut apart in logical order, showing the sequence in which each step would be undertaken in an actual community setting.
- d. Have the two hardware groups

reconcile their sequence of steps to produce one hardware sequence. Software groups should do the same.

e. Ask the groups to paste the larger newsprint strips of hardware and software components on the board or wall in the same order in which they arranged their cut-up strips.

f. Each of the sections (hardware and software) should form a team to decide at which points the hardware and software sequences could best be integrated.

g. Facilitate the plenary discussion in which all the lists are compared and integrated as much as possible.

3. Discussion Points

Note: You may include this portion or tackle it as a sub-topic of the whole activity.

Ask the participants:

3.1 As members of the community and future officers of the BWSA, what are your roles and responsibilities in relation to the activities you have cited?

3.2 In your BWSA or community, what was/will be your primary responsibility in the WATSAN project? What do you think should be your participation aside from those which you

have actually done?

- 3.3 What insights on WATSAN implementation and management did you learn from the activity?

4. Synthesis and Integration

- 4.1 Review briefly the main components of WATSAN. Highlight the role of community participation in both components.
- 4.2 Summarize briefly the whole topic. Emphasize the learnings and their practical applications.

TRAINING TOOL

Hardware Components

Arrange for supply of spare parts.
Conduct geological survey.
Hold planning meetings.
Evaluate use of water source.
Conduct pump trial.
Brief the municipal engineer.
Select site for pump.
Plan the use of the area around the pump.
Establish the drilling.
Purchase drills and other supplies.
Ensure delivery of pumps.

Software Components

Create a BWSA fund.
Promote women's participation.
Compile village files
Form committees within the BWSA.
Hold community meetings.
Discuss agency and community roles.
Orient committee members.
Meet with local leaders.
Orient the BWSA members.
Register the BWSA.
Open BWSA bank account.
Sign land agreement for placing the pump.
Collect fees from BWSA members.
Select and train water source caretakers.
Conduct hygiene education.

Objective Setting

Learning Objective: To be able to clarify the objectives of the BWSA.

Time Required: 20 minutes

Materials Needed: Manila paper
pentel pens

Procedure:

1. Orientation

Give a brief lecture on problem solving by referring to the Key Learning Points.

Key Learning Points

Steps in Problem Solving

1. Problem Identification
2. Problem Analysis
3. Objective Setting
4. Planning
5. Implementation of the Plan
6. Monitoring and Evaluation

1.1 Using the Key Learning Points, focus on objective setting. Ask the participants what they understand about an objective.

1.2 Write the answers on the board and summarize the answers given.

2. Activity Proper

2.1 Discuss the definition of objective and the qualities of a good objective by referring to the Key Learning Points.

Key Learning Points

Qualities of a Good Objective

Simple Realistic
Measurable Time Bound
Attainable

2.2 Give examples of correctly stated objectives.

2.2 Group the participants according to BWSA. Have them undergo an exercise on objective setting by listing down objectives to be achieved covering a six-month period.

3. Discussion Points

Ask the participants these questions:

3.1 How did you find writing down your objectives? Tell us more about it.

3.2 What factors did you consider in writing down your objectives?

Summarize their answers. Highlight the qualities of a good objective by referring to the Key Learning Points.

4. Synthesis and Integration

4.1 Review briefly the points to consider in setting objectives.

4.2 Summarize the discussions. Emphasize learnings and their

Impertinent Pert Chart (IPC)

Learning objective: To acquire the skills in planning an activity.

Time required: Two hours

Materials needed: Newsprint or any large sheet of paper, pentel pens, pencils and tape

Procedure:

1. Orientation

Ask the participants the following questions:

1.1 Do you follow a system for action planning?

1.2 What are the steps in planning an activity?

Write their answers on the board then summarize. Tell the participants that this session will familiarize them with the different steps in project planning.

2. Activity proper

2.1 Make participants think of or choose a community problem to be addressed.

2.2 Divide the participants into small groups. Ask each group to discuss the full implications of the problem they have selected by concentrating on

the following questions:

a. What is the nature of the problem?

b. Who is/are affected?

c. What are some ways to resolve it?

d. What constraints stand in the way?

e. What resources are available?

2.3 Make them write specific objectives related to the problem which can be achieved within a set time frame. Let each group brainstorm on the number of actions required to achieve that objective.

2.4 Instruct them to evaluate the ideas generated and select the most pertinent or feasible. Tell them to write each action idea selected on a card or slip of paper.

2.5 Let them decide on three or four categories under which action steps can be grouped. Tell them to use these categories as headings in preparing the left-hand side of the IPC.

2.6 Give the small groups the following directions in preparing the IPC:

- a. Take a large sheet of paper and divide it horizontally into as many spaces as the number of categories identified. Write the category headings on the left-hand side. For each category, review the steps and stick them on the right-hand column in a logical sequence beginning with the easiest and the most urgent steps to take. Allow participants to arrange or add steps after discussion.
- b. Review each step by considering the following: time, resources needed, and cost. Post the cards in left- and right-hand corners.
- c. Determine the time frame by dividing the top of the chart into the number of months the activities will be accomplished. In sequencing the steps corresponding to each category, consider which steps under each category would have to be undertaken before, after, or simultaneously with other steps. Space them accordingly to show how action will proceed along several fronts in a coordinated manner. Divide

the horizontal space on the chart into time segments (e.g. months), adding up to the total time available for activities. Then arrange activities that have been previously sequenced above so that they are realistically spaced and stay within the total time available.

3. Discussion Points

3.1 Ask the participants the following questions:

- a. What did you feel about the activity you had just undertaken?
- b. Why did you feel this way?
- c. Did the experience give you an insight on how you can systematically plan for your water and sanitation projects? Why?

4. Synthesis and Integration

4.1 Briefly review the outputs of the small groups.

4.2 Summarize the whole activity. Emphasize learnings and their practical applications.

Go to the Next Chapter

Learning objectives: To elicit the community's expressed needs in relation to water.

To envision a desired (ideal) community and to identify goals and resources needed for attaining that desired community.

Time required: Two hours

Materials needed: Old newspapers, colored papers, pentel pens, pencils, and indigenous materials found in the area

Procedure:

1. Orientation

Get the participants in a relaxed state by giving a five-minute relaxation exercise. Refer to the training tool.

Training Tool

Let the participants find a comfortable position. Tell them to relax with their eyes closed and follow what you say:

1. *Breath deeply. One, inhale; two, exhale; three, inhale; four, exhale (and so on till you notice that the participants are breathing rhythmically).*

2. *Contract feet muscles slowly. Relax.*

3. *Contract knee muscles slowly. Relax.*

Do this for the other parts of the body: thighs, buttocks, abdomen, chest, shoulders, neck and the whole body.

After 10 seconds of silence, tell the participants to empty their minds - to think of nothing, and just experience a general state of relaxation. After 10 more seconds, let them open their eyes.

2. Activity Proper

- 2.1 Divide the participants into small groups.

- 2.2 Distribute the materials. Tell the participants that out of those materials, each group has to make an imagined community that they would like to be in.

- 2.3 Ask them to make a map of that community, indicating the general sanitation condition as well as its water resources.

- 2.4 After doing the map, ask the groups to compare them with their respective real

communities by:

- a. Listing the resources found both in the real and in the desired or imagined community;
- b. Listing the goals and the needed resources.

- a. How did you find the activity?
- b. What are the roles of the leaders and the members of the community in arriving at their desired or imagined community?

2.5 Ask the groups to develop a set of criteria for prioritizing their goals.

2.6 Tell them to put the goals in order of priority according to these criteria.

4. Synthesis and Integration

4.1 Review briefly the outputs of each group.

4.2 Summarize the whole topic. Emphasize the learnings and their practical applications.

3. Discussion Points

3.1 After the activity, ask the participants the following questions:

Water Walk

Learning objective: To understand the different processes involved in the use of water.

Time required: Three and a half hours

Materials needed: Pictures/drawings depicting various activities involved in the use of water, pencils and pieces of paper

Procedure:

1. Orientation

1.1 Ask the participants what are the activities involved in the use of water, particularly drinking water.

1.2 Summarize their answers.

2. Activity Proper

2.1 Divide the participants into groups of five.

2.2 Tell the participants that they will be shown different pictures and that they have to arrange them in a chronological order.

Note: The pictures should be related to sourcing, collecting, transporting and using water.

2.3 Tell each group to identify possible problems in relation to water use as can be noted in the pictures and discuss among themselves the proper

ways of using water.

2.4 Instruct the participants to go around the community (in groups) to observe how water is used. Tell them that they have to note down their observations in the community. Give the participants about two hours to accomplish this activity.

2.5 After the field observation, tell the small groups to choose a reporter among their members and present their reports to the big group.

2.6 Summarize the reports.

3. Discussion Points

Ask the participants the following questions:

3.1 How did you find the activity?

3.2 What is happening in the community that is similar to the pictures you have earlier seen?

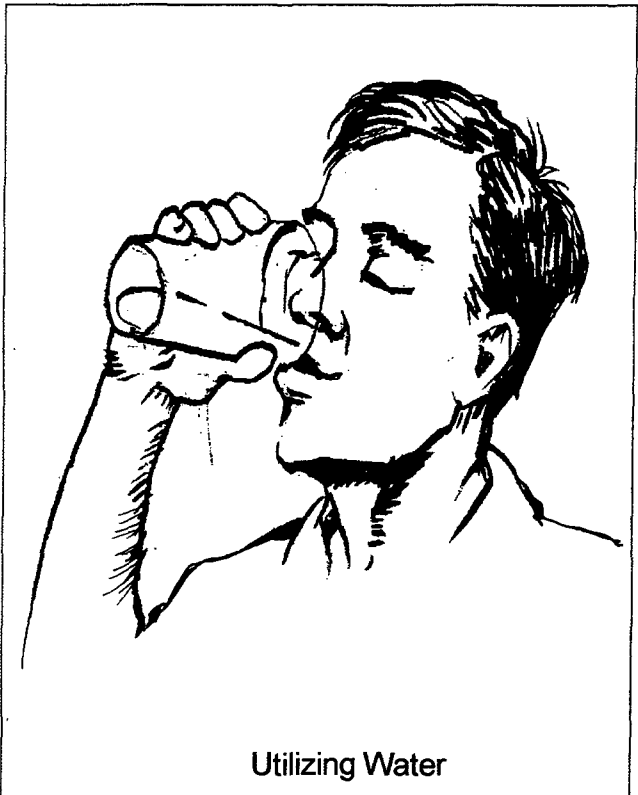
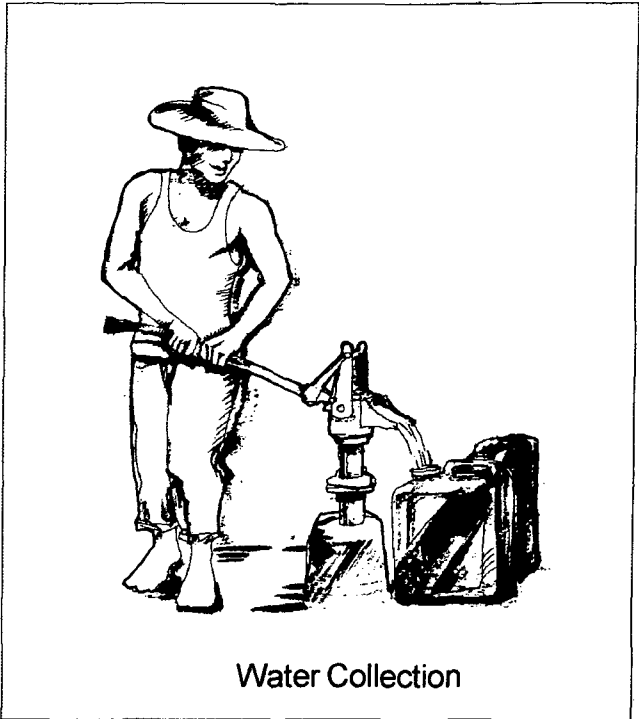
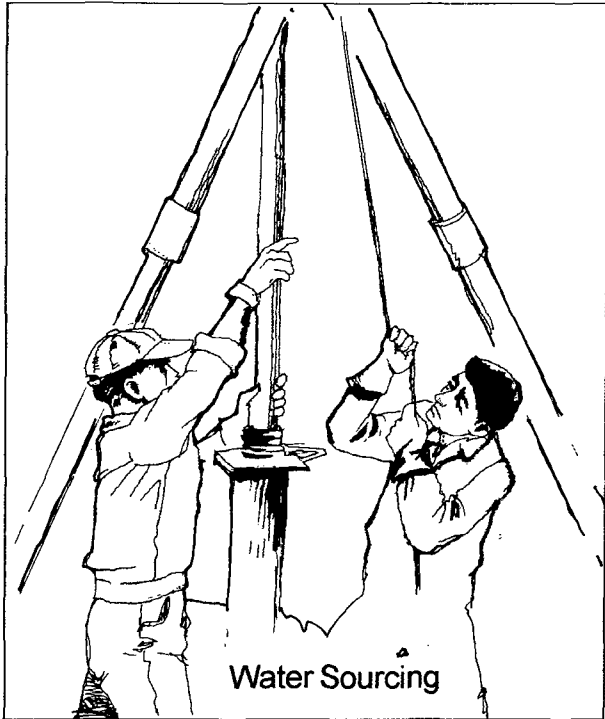
3.3 Did you observe possible problems related to sourcing, collecting, transporting and using water?

4. Synthesis and Integration

4.1 Briefly summarize the activity.

4.2 Highlight the observations and conclusions of the participants.

Training Tool



Mural on Community Participation

Learning objective: To define community participation in the implementation of water and sanitation projects.

picture illustrating their concept of community participation. They have 10 minutes to complete the task.

Time required: One hour

2.4

Ask the small groups to have a sharing of individual drawings among their members and to combine them into one display. Ask them to choose a spokesperson who can explain the group's drawing to the large group. Give each group 20 minutes for sharing and preparation of murals.

Materials needed: Bond papers, lead pencils, pentel pens, colored pencils, paste or adhesive tape

Procedure:

1. Orientation

1.1 Explain that before discussing the concepts of community participation, it is important for the participants to first share individual and group ideas on the meaning and forms of community participation to reconcile different views and reach agreements.

2.5

Give each group five minutes to present their mural to the large group.

2.6

With the help of an artist, if available, all the drawings can be combined and transformed into a mural on community participation.

2. Activity Proper

2.1 Divide the participants into three small groups of no more than ten members each.

2.2 Explain that this activity is to help the whole group understand how each member feels about community participation.

2.3 Ask the participants to draw a

3. Discussion Points

After the presentations, ask these questions:

3.1 What are the groups' common concepts of community participation?

3.2 What are the differences in the groups' concepts?

3.3 What definition of community

participation can the groups draw from their murals?

Key Learning Points

Write the participants' definition of community participation on the board and integrate this with the meaning of community participation by referring to the Key Learning Points.

Community - composed of individuals and families belonging to various groups, but sharing common environment, beliefs, practices, problems and needs.

4. Synthesis and Integration

Community participation happens when members...

- 4.1 Review briefly the meaning of community participation and emphasize the key points about the role of the community in water and sanitation project management.
- 4.2 Ask how they can develop and increase community participation in the projects.
- 4.3 Summarize the topic. Emphasize the learnings and their practical applications.

- identify their problems and needs;
- make decisions on what has to be done;
- implement their decisions and collective action;
- share in the benefits of such decisions and actions; and,
- evaluate the results of their decisions and actions.

Good, Bad and In-Between

Learning objectives : To be able to identify problems and causes of problems.

To be able to find alternative ways of solving a problem.

Time required: 30-45 minutes

Materials needed: a set of cards with illustrations on health, sanitation, and water supply that could be interpreted as GOOD, BAD, or IN-BETWEEN.

Procedure:

1. Orientation

Ask the participants the following questions:

- 1.1 Have any of you undergone a planning process or undertaken a training on planning?
- 1.2 What is planning? What activities are done when you plan?

Summarize the answers and explain the meaning of planning for water supply and sanitation.

2. Activity Proper

- 2.1 Ask the group to form a circle.

2.2

Invite 2 or 3 volunteers to come to the center of the circle. Give them a set of cards to study and instruct them to sort these out into three piles: Good, Bad, or In-Between. Use good health, sanitation, water supply or other development conditions as criteria.

2.3

Encourage participants to reconsider their choices in consultation with other members of the group. If some aspects have been missed, feel free to raise questions which would help the group think further, and if necessary, change their classification of the card concerned.

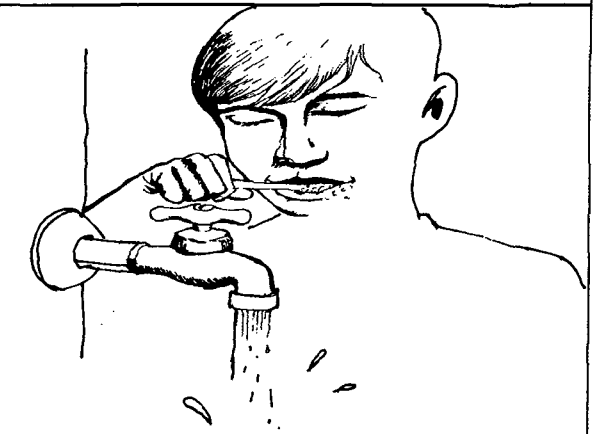
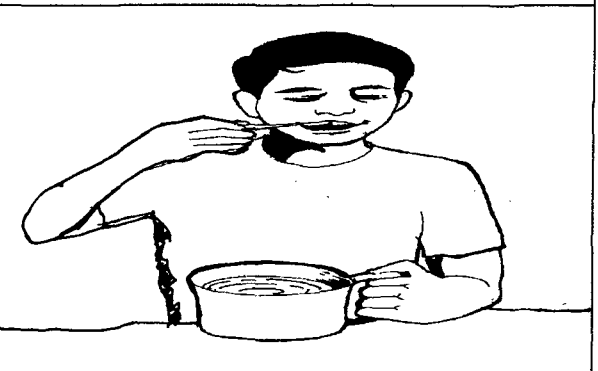
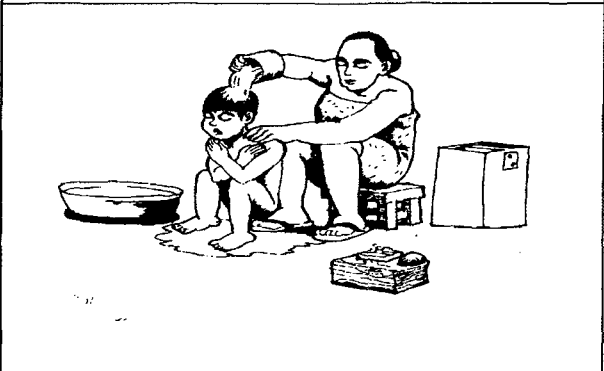
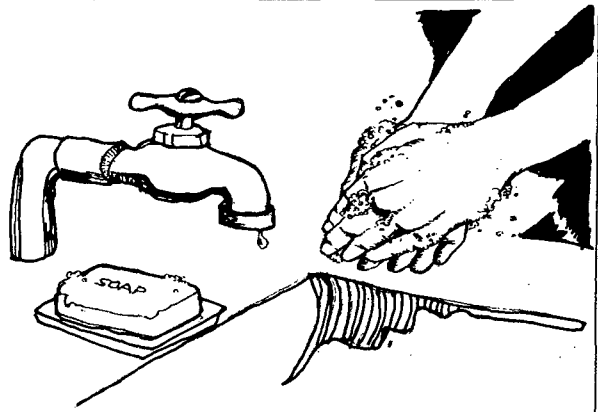
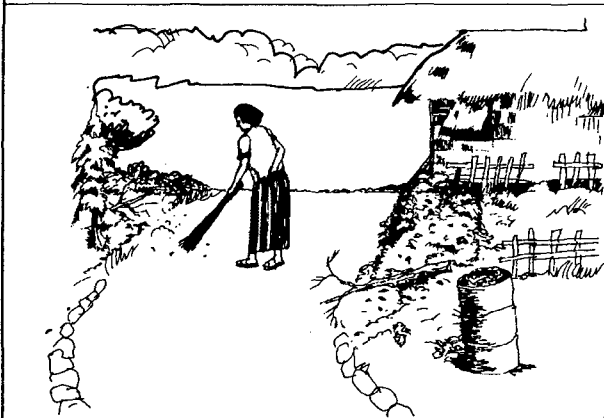
2.4

If desired, have participants select one or more cards from the BAD category and develop a list of action steps to resolve the problems presented. They should then decide who should be responsible for each step, i.e. the government, the community, the NGOs, the women.

Some action steps that may be suggested:

- * Install pumps.
- * Build more toilets for common use.

Training Tools



- * Take preventive action against typhoid fever.
- * Start vegetable gardens using waste water.
- * Repair the pump.
- * Ensure that spare parts are available.
- * Monitor the proper use of water.
- * Pay cost of maintaining the water system.
- * Ensure the cleanliness of the environment.
- * Ensure that women have a say in the decisions.

3. Discussion Points

Ask the participants the following questions:

- 3.1 How does your BWSA go about planning to solve a problem?
- 3.2 How would you go about planning for activities of the BWSA?

4. Synthesis and Integration

- 4.1 Review briefly the steps in problem solving by referring to the Key Learning Points.
- 4.2 Summarize the whole activity by emphasizing learnings and their practical applications.

Key Learning Points

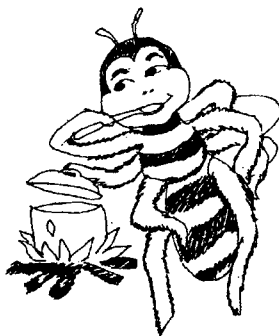
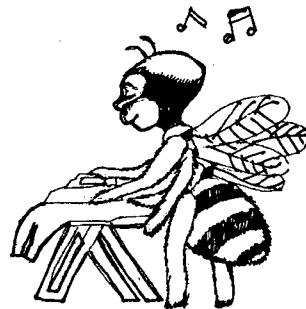
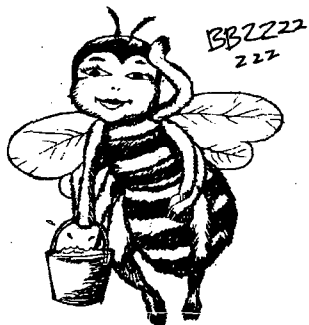
Steps in Problem Solving

1. Problem Identification
2. Problem Analysis
3. Objective Setting
4. Planning
5. Implementation of the Plan
6. Monitoring and Evaluation

Women, Water Supply and Sanitation

<p>Learning objective: To acquire skills for increasing women's participation in the community.</p>	2.4	Discuss the outcome by highlighting what tasks were easy to categorize and what tasks were difficult to categorize.
<p>Time required: 30 minutes</p>		
<p>Materials needed: Blackboard and chalk; drawings of bees and frogs</p>	2.5	Discuss which roles are best performed by women in the management and maintenance of water supply and sanitation.
<p>Procedure:</p>		
<p>1. Orientation</p>	2.6	Have the participants react to the conclusions drawn.
<p>Ask the participants the following questions:</p>	2.7	Point out the strategies for enhancing women's participation in water supply and sanitation programs.
<p>1.1 Who are the groups in your community that are in need of water and sanitation facilities?</p>		
<p>1.2 What do women do during the implementation of water supply and sanitation projects?</p>		
<p>2. Activity Proper</p>	3. Discussion Points	
<p>2.1 Show large drawings/pictures of: a female bee; a male frog; and a female bee with a male frog.</p>	3.1	As members of the BWSA and of the community, how can you enhance women's participation in water and sanitation projects?
<p>2.2 Give the group 12 cards showing women bees performing daily tasks.</p>	3.2	How can women be involved in the planning and management of water supply and sanitation programs?
<p>2.3 Ask the small groups to sort out the tasks as either male, female or common to both.</p>	4. Synthesis	
	4.1	Summarize the topic.
	4.2	Emphasize the learnings and their practical applications.

Training Tools



Training Tools



A FEMALE BEE



A MALE FROG



A FEMALE BEE WITH
A MALE FROG

Module 3: *Health and Sanitation*

***Workshop on the Local Health
and Sanitation Situation***

***Workshop on the National Health
and Sanitation Situation***

***The Interrelationship Between Water Supply
and Sanitation***

Workshop on the Local Health and Sanitation Situation

Learning objective: To discuss the local health and sanitation situation.

Time required: Three hours

Materials needed: Manilapaper
pentel pens

Procedure:

1. Orientation

Tell the participants that before presenting the national situation on health and sanitation, it is important to have a grasp of the present health and sanitation situation of their area.

2. Activity Proper

Divide the participants into groups of five. Ask the groups to answer the following questions:

2.1 Where are the sources of water in your community?

2.2 What does the community do to ensure that the sources of water are clean?

2.3 What problems are encountered in ensuring that the water is clean?

2.4 What health and hygiene programs are undertaken in your barangay?

2.5 To what extent have these programs helped your community?

Ask the groups to write the summary of their discussion in a Manila paper and present their outputs to the whole group.

3. Discussion Points

Ask the participants the following questions:

3.1 What were the most common situations discussed by the groups?

3.2 How did each community address the issue of ensuring clean and potable water supply?

4. Synthesis and Integration

4.1 Review briefly the main points reiterated in the presentation of the different groups.

4.2 Summarize the topic. Emphasize the conclusions and learnings.

Workshop on the National Health and Sanitation Situation

Learning objective: To discuss the national health and sanitation situation.

2.5 Discuss the various interventions done for health and sanitation.

Time required: One hour

Materials needed: Overhead projector, transparencies of statistics and other data on the national health and sanitation situation, Manila paper or blackboard and pentel pen or chalk

3. Discussion Points

3.1 Ask the participants to relate the situation of their respective communities to the national health and sanitation situation.

4. Synthesis and Integration

4.1 Review briefly the main points of the presentation and discussion.

4.2 Summarize the whole topic. Emphase the clarifications and conclusions drawn from the discussion.

Procedure:

1. Orientation

Link the relevance of your presentation to the training course.

2. Activity Proper

2.1 Present the national situation on safe water supply.

2.2 Present the national situation on sanitary toilet coverage.

2.3 Discuss the incidence of water-borne diseases.

2.4 Present the environmental sanitation situation.

The Interrelationship Between Water Supply, Sanitation and Health

Learning objective: To define the interrelationship between water supply, hygiene and health

Time required: 1 hour

Materials needed: Three illustrations/pictures depicting: two women getting water at a pump; a man or child drinking a glass of dirty water; and, another man or child drinking a glass of clean water.

names) husband or child drinking the water she brought home from the pump yesterday. The picture is attached to the board at some distance from the pump. Put an arrow between the two pictures.

Procedure:

1. Orientation

Tell the participants that they are about to undergo an experience where they can better appreciate the interrelationship of water supply, sanitation and health.

2. Activity Proper

2.1 Divide the participants into three small groups.

2.2 Attach the pictures to the board. Let participants examine the picture of the women getting water from the pump. Make them describe what is happening.

2.3 Have the participants study the picture of the person drinking the dirty water. Trainer explains that this is (one of the women's

2.4

Ask the participants what could have happened between the first and second picture to cause the water to be contaminated.

2.5

When all the possible reasons (events) have been described, attach the first and second picture of the person drinking dirty water and explain that this is the husband/child of the second woman at the pump. An arrow is drawn between the pump picture and the clean water picture.

3. Discussion Points

3.1

What has this woman done to keep her drinking water clean?

3.2

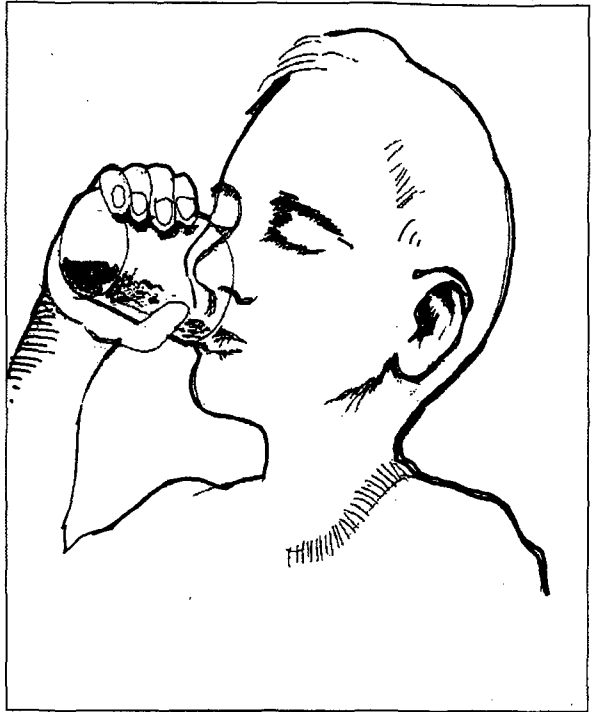
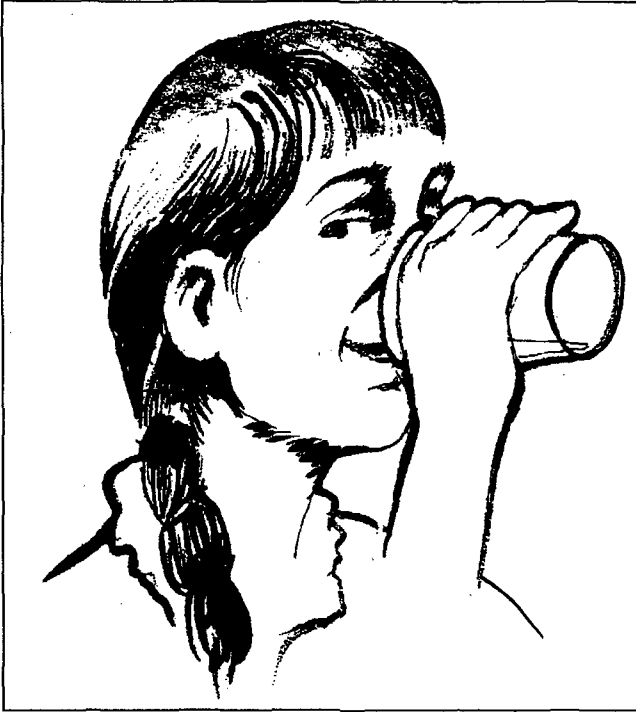
What can be done in a village to help people keep their pump water clean?

4. Synthesis and Integration

4.1

Synthesize points and issues raised. Emphasize the learnings.

Training Tools



Module 4: **Operation and Maintenance**

What Can We Do With Well Troubles?

Disinfection of Pump Well: Why and When

***Chlorination of Pump Well: An Actual
Demonstration***

What Can We Do With Well Troubles?

<p>Learning objectives: To discuss the results of improper operation and maintenance of pump wells;</p> <p>To identify the most common pump well troubles in their respective barangays;</p> <p>To identify what the barangay folks usually do to remedy said pump well troubles; and,</p> <p>To discuss the most common causes of pump well failures and their remedies.</p>	<p>2.2</p> <p>2.3</p>	<p>Distribute Manila papers, pentel pens and masking tapes to the groups.</p> <p>Tell the groups to come up with a list of the most common pump well troubles that they observe in their respective barangays. Tell them to discuss among themselves what they think could be the causes of such troubles and what remedies are usually done by the barangay residents. Give the groups 20 minutes for discussion and writing their outputs in the Manila paper.</p>
<p>Time required: One hour and 30 minutes</p>		
<p>Materials needed: Manila papers, pentel pens, masking tape, posters or handouts on basic well design and pumpwell troubles and their remedies</p>	<p>2.4</p>	<p>Have the small groups present their respective outputs to the large group, allowing 10 minutes per presentation.</p>
<p>Procedure:</p>		
<p>1. Orientation</p> <p>1.1</p>	<p>2.6</p>	<p>Aided by posters, or transparencies, or hand-outs, present and discuss: Basic Well Design and Functions; Results of Improper Operation and Maintenance of Pump Wells; and, Pump Well Troubles and Their Remedies. At any point during the presentation, encourage the participants to comment and ask clarificatory questions.</p>
<p>2. Activity proper</p> <p>2.1</p>	<p></p>	<p>Divide the participants into three groups.</p>

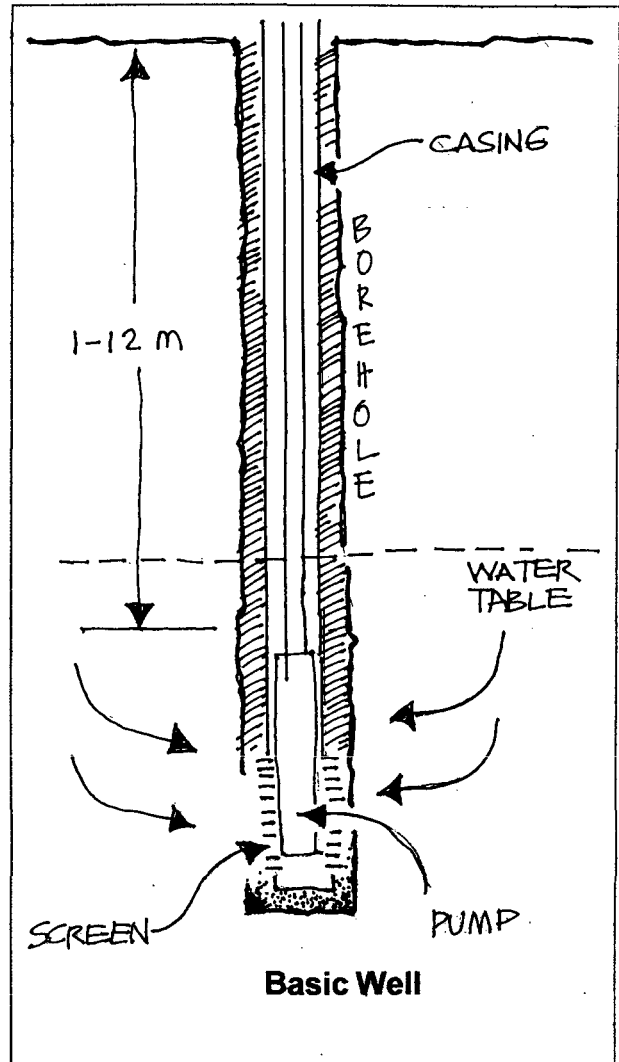
3. Discussion Points

Ask the participants the following questions:

- 3.1 How do you find the session, did it help you understand better the most common causes of pump well failures and the corresponding remedies for such? Explain.
- 3.2 Do you think you can explain well to the people in your barangay what you have learned just now? Explain.

4. Synthesis and Integration

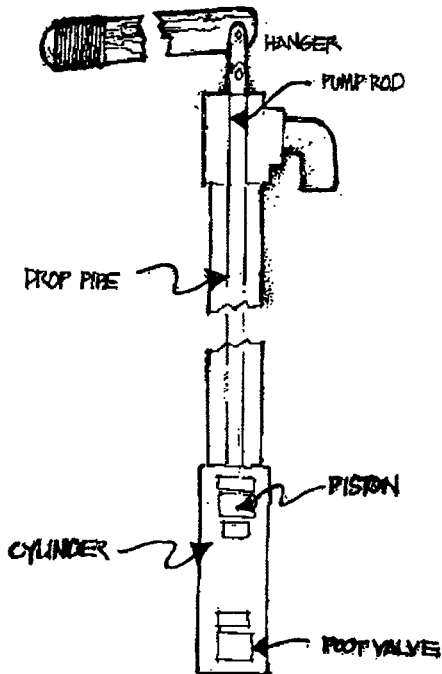
- 4.1 Briefly review the main points drawn from the presentations and discussion.
- 4.2 Summarize the whole activity focusing on the conclusions and learnings gained.



Pumpwell Troubles and their Remedies

Disconnection Troubles

Disconnection of any of the above parts will result in no water. If it is the pumprods, drop pipe or cylinder that is disconnected, no resistance will be felt on the handle when it is being worked.



REMEDY: Reconnect the disconnected parts. If the disconnected part(s) is below ground, the part should be pulled out. If it is the drop pipes or cylinders that were disconnected, it will often drop to the bottom of the well and you have to fish it out.

Leakage Problems

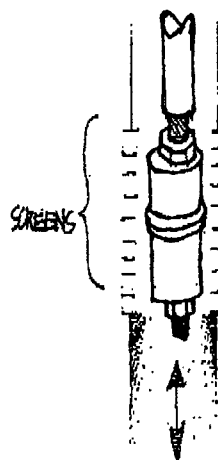
1. Leakage problems such as holes in the droppipe (little or no water will come out even with lots of pumping). Remedy is to replace the cylinder.

2. Worn-out piston seals causes little or no water to come out. Water leaks from above and below it during operation. Remedy is to replace worn-out piston seals.
3. Leaking foot valve. Its symptom can be noticed every morning. It will take a long time (many pump strokes) before water comes out. Remedy: replace leaking rubber gaskets in the foot valve.

Borehole Problems

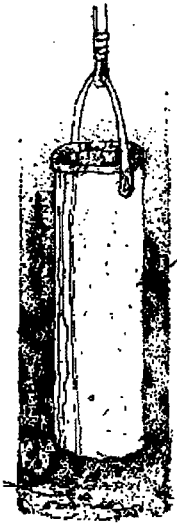
- A. Sand pumping: Pump water is laden with sand, causing piston seals to wear out fast. Its remedy is to have the well cleaned out of any loose sand and debris. Maintain at least 3 feet of clearance between pump intake and well bottom; and at least 5 ft above the screens.

Some ways of cleaning out wells



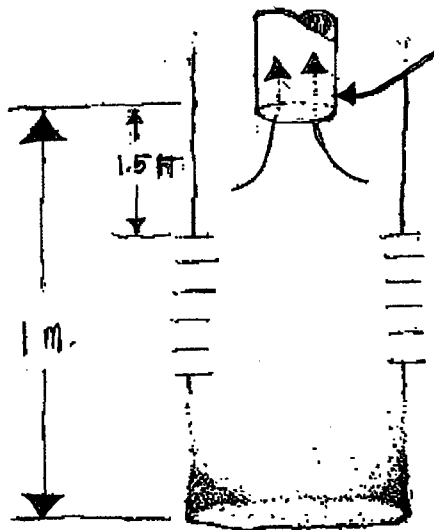
2 cylinders of wood with rubber washer in between, bolted together and attached to the end of the pumprod.

SURGING



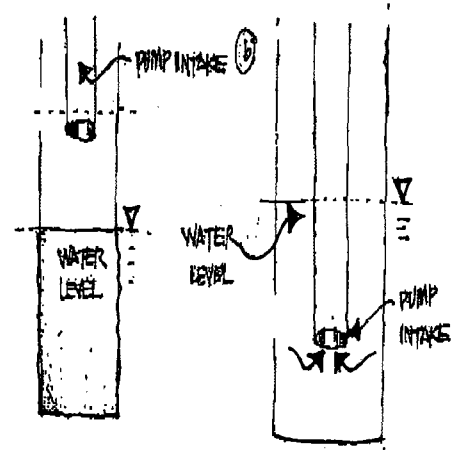
Sand bucket (short piece of pipe with a one-way valve for bailing out debris at well bottom.

Keeping pump intake clear of well bottom and screen

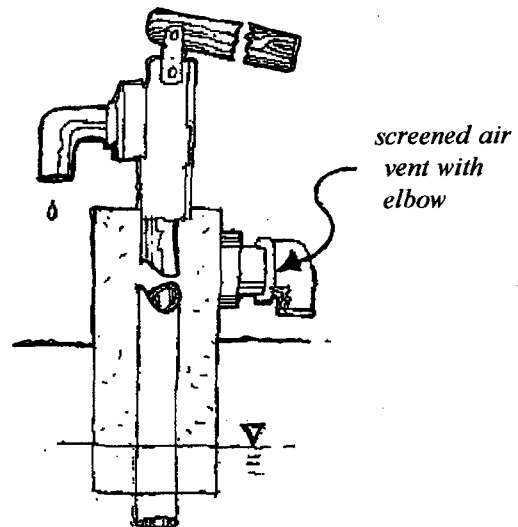


pump intake

Well collapse (cave-in): Surrounding formation has caved into the well) little (muddy or sandy) water is coming out. Remedy is to redevelop/clean/or re-drill the well.



Water level has gone down below the pump intake. No water comes out. Remedy: extend the pump intake to below the water level. If well depth is not enough, for the extension, deepen it.



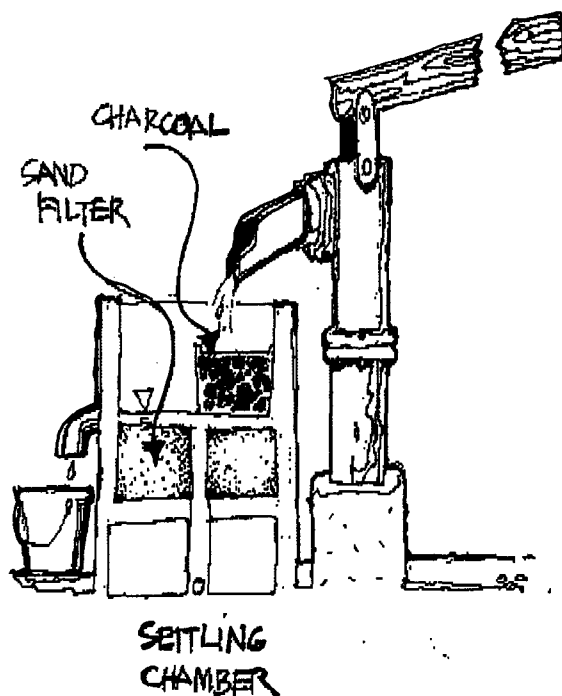
screened air vent with elbow

Water Quality Problems

1. Disease-causing organisms:
 - a. Disinfect regularly
 - b. Boil/disinfect water (2-20 minutes)
 - c. Get drinking water from safe sources.
2. Hard water (increases soap consumption for bathing and washing; leaves sticky feeling on hair and skin): There is no remedy except consider other sources of water like rainfall.
3. Iron and manganese in water (rust-like smell, increases soap consumption for bathing and washing).

Try the following:

- a. Make an air hole for the casing so water in the well can "breath".
 - b. Chlorinate well so any iron-eating microbes will be eliminated.
 - c. Make an iron filter.
4. Presence of sulfates (makes water taste astringent): try remedy stated in number 3, except chlorination.
 5. Saline water
 - a. consider other sources.
 - b. Redesign well so that only fresh water can enter it.
 - c. Regulate use of water from well so it will not be overdrawn.
 6. Presence of nitrates (Usually arises from excessive agricultural use of fertilizers. High nitrate intake can cause some cancers). There is no remedy except regulating use of nitrates and assuring that the well is sufficiently grouted for protection against entry of surface waters.
 7. Presence of other pollutants like oils and greases, pesticides and other organic toxins and



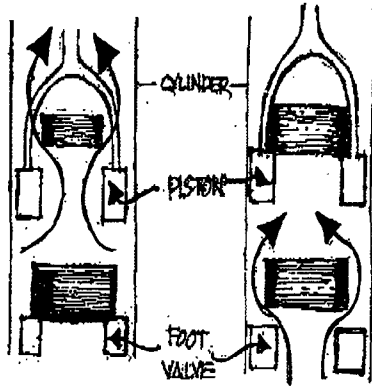
chemicals. This is difficult to treat. Preventive measure is proper disposal of solid and liquid wastes.

Pumpwell Maintenance

1. Keep all pins oiled or greased.
2. Keep all connections tight except connections like some bolts that are intended to be loose. Replace worn bolts, couplings.
3. Keep the pump platform from being undermined by erosion by repairing undercut portions.
4. Direct all sillage from pump use to seep into the ground at least 20 meters away from the well.

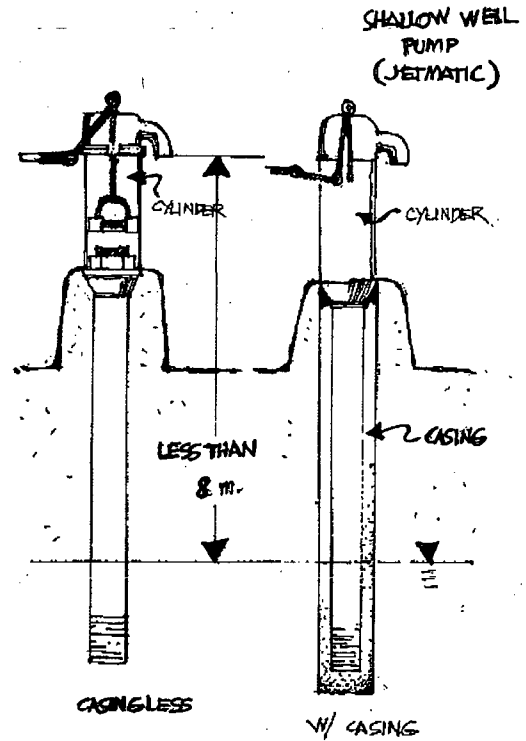
Pump Well Design and Function

How a reciprocating pump works



Piston moves up, valve closes due to pressure of water above it; water above piston is lifted up, vacuum is created between piston and foot valve, water opens foot valve flap and enters the pump cylinder; piston goes down, water opens piston valve and passes up.

Shallow Well Pump (Jetmatic)



Disinfection of Pump Well: Why and When?

Learning objectives: To discuss the importance of pump well disinfection.

To discuss when pump well disinfection should be done.

Time required: One hour

Materials needed: Blackboard and chalk, poster or hand-out showing various cases where and when disinfection of pump well is necessary

c. The Code of Sanitation is a basic law which provides for the treatment of water to render it safe for drinking. It also states that the disinfection of contaminated water source should be done at least once every six months.

1.2 Tell the participants that this session will deal on the importance of disinfecting pump wells. Cases where disinfection is necessary will also be discussed.

Procedure:

2. Activity Proper

1. Orientation

2.1 Ask the participants to give their opinions as to why they think pump wells should be disinfected.

1.1 Explain to the participants the following:

a. Disinfection is a process of killing pathogenic bacteria found in drinking water inside pipes, pumps, reservoirs and other components of the water supply system.

2.2 Write their responses on the blackboard.

2.3 Underline all relevant and valid responses.

b. Disinfection is carried out with the use of chemicals, usually chlorine.

2.4 Elaborate on the most salient points elicited (underlined responses), highlighting health implications such as: If water is not disinfected, the end user

might suffer from diarrhea or other water-borne or water related diseases.

3.2

How will you explain to them the importance of disinfecting pump wells?

2.5 Aided by transparencies, or posters, or drawings on the blackboard, discuss when disinfection of pump wells should be done.

4. Synthesis and Integration

4.1

Give a brief summary of the discussion by re-emphasizing why and when disinfection should be done.

3. Discussion Points

3.1 Do you think the people in your barangay are aware of the necessity to disinfect pump wells?

Training Tool

Two Kinds of Disinfection:

A. Disinfection of the water system (the well, the pipes, the reservoirs).

This is done during commissioning of the system and after every repair.

B. Disinfection of the water itself.

This is done continuously where water tests positive for bacterial contamination.

It is recommended to undertake disinfection several times a year even for systems where water is normally safe. Disinfection of water should be done during:

1. the start and the end of the rainy season;
2. soon after the pump or well has been submerged in floodwaters;
3. before and after occasions when there is an influx of people into the community, such as fiestas, athletic meets, jamborees, evacuations and refugees.

Chlorination of Pump Well: An Actual Demonstration

Learning objectives: To review the importance of pump well disinfection.

Disinfection Is Necessary, review the importance of chlorinating a pump well.

To acquire skill in pump well chlorination. 1.2

Tell the participants that the greater part of this particular session will be an actual demonstration of pump well chlorination to be conducted in the field.

Time required: Two to four hours

Materials needed: For the discussion at the session room:
Handouts, or other visual aids, or actual samples of materials needed for disinfection, particularly chlorine dosing.

2. Activity Proper

For the actual demonstration during the field activity:
Chlorine powder or liquid, plastic pail with 3 gallons of water, empty plastic pail or wash basin, and a nearby pump well scheduled for chlorination

2.1 Ask the participants if anyone among them had actually conducted water disinfection by himself/herself. If there is one, ask him/her to share with the whole group how he/she did it.

2.2 Aided by the posters, or transparencies, or hand-outs on *Materials for Water Disinfection* and *Chlorine Dosing*, discuss the materials needed and the steps in pump well chlorination.

2.3 Encourage the participants to ask clarificatory questions at any point during the discussion.

Procedure:

1. Orientation

1.1 Aided by the previous session's training tool regarding *Cases Where*

2.4 Instruct the participants to get ready for actual field demonstration of pump well chlorination.

2.5 In the field, reiterate the step by step process of water disinfection simultaneous with the actual conduct of the chlorination.

2.6 After the demonstration, lead the participants back to the session house for the continuation of the discussion.

3. Discussion Points

Ask the participants the following questions:

3.1 How did you find the activity?

3.2 What new things did you learn

from it?

3.3 Is there anything in the process of chlorination that you think the people in your respective barangays would not agree to? Explain why.

3.4 Could you impart well to the people in your respective barangays the chlorination process you just have learned?

4. Synthesis and Integration

4.1 Summarize the whole activity. Focus on the new learnings.

Training Tool

How Much Chlorine to Use

A. For disinfecting wells

Amount of chlorine (laundry bleach granules) in tablespoons

Diameter of well (in inches)

Depth of water in well (in meters)

For a **6-meter deep** well with a 2-inch diameter: 1/2 TABLESPOON chlorine granules

3-inch diameter: 1 TBSP chlorine granules

4-inch diameter: 2 TBSP chlorine granules

6-inch diameter: 2 & 1/2 TBSP chlorine granules

40-inch diameter: 4 & 1/2 TBSP chlorine granules

For a **12-meter deep** well with a 2-inch diameter: 1 TBSP chlorine granules

3-inch diameter: 1 TBSP chlorine granules

4-inch diameter: 1 & 1/2 TBSP chlorine granules

6-inch diameter: 2 & 1/2 TBSP chlorine granules

40-inch diameter: 5 TBSP chlorine granules

For an **18-meter deep well** with a 2-inch diameter: 1 & 1/2 TBSP chlorine granules
3-inch diameter: 2 TBSP chlorine granules
4-inch diameter: 3 & 1/2 TBSP chlorine granules
6-inch diameter: 5 TBSP chlorine granules
40-inch diameter: 9 & 1/2 TBSP chlorine granules

B. For Disinfecting Reservoir and Pipes

1. Fill the tank with water.
2. For every cubic meter of tank capacity, mix in 50 level tablespoonfuls or 1/4 kilo of laundry bleach granules.
3. Let stand for thirty minutes.
4. Release the water into the pipeline network.
Inform the users before hand not to open their faucets.
5. Go around opening each faucet until the chlorine smell is noticeable; after which, shut it off immediately.
6. Tell users not to use the faucets for 30 minutes.

Module 5:

Financing

***Funds for Operation and Maintenance:
Where Must They Come From?***

Fund Collection and Management

Funds for Operation and Maintenance (O&M): Where Must They Come From?

Learning objectives: To identify common problems regarding funding for operation and maintenance of water supply system in the barangay;

To identify and discuss the steps (methods) commonly used by the people in the barangay in solving said problems; and,

To discuss suggested community financing and cost-sharing schemes (among neighborhood organizations or BWSA members) for the operation and maintenance of water supply systems in the barangay.

Time required: One hour

Materials needed: Manila paper, pentel pens, masking tape, blackboard and chalk

Procedure:

1. Orientation

1.1 Tell the participants that while financing for the installation of water supply systems has been a major problem in several localities, the need for funds for operation and maintenance has also become a major concern

in barangays that already have water supply systems.

1.2 Tell the participants that this session will attempt to identify and discuss the most common problems and solutions regarding funding for operation and maintenance of water supply systems in their respective barangays. Suggested community financing schemes will also be elicited from them.

2. Activity Proper

2.1 Divide the participants into small groups of five or six.

2.2 Instruct the small groups to answer the following questions:

- What are the common operational and maintenance troubles that you observe in the water supply system in your barangay?
- How much are the usual estimated costs for repair?
- What do the people in your barangay usually do in cases of breakdown of their water supply systems?
- Where do the funds for maintenance and repair come

from?

- Are people voluntarily contributing for the cost of maintenance and repair?
- What are the people's feelings (attitude) towards giving contributions?
- What financing scheme/s can you suggest for improving the operation and maintenance of the water supply systems in your barangay?

2.4

answering the above questions. Ask them to write the results of their discussion in the Manila paper provided them.

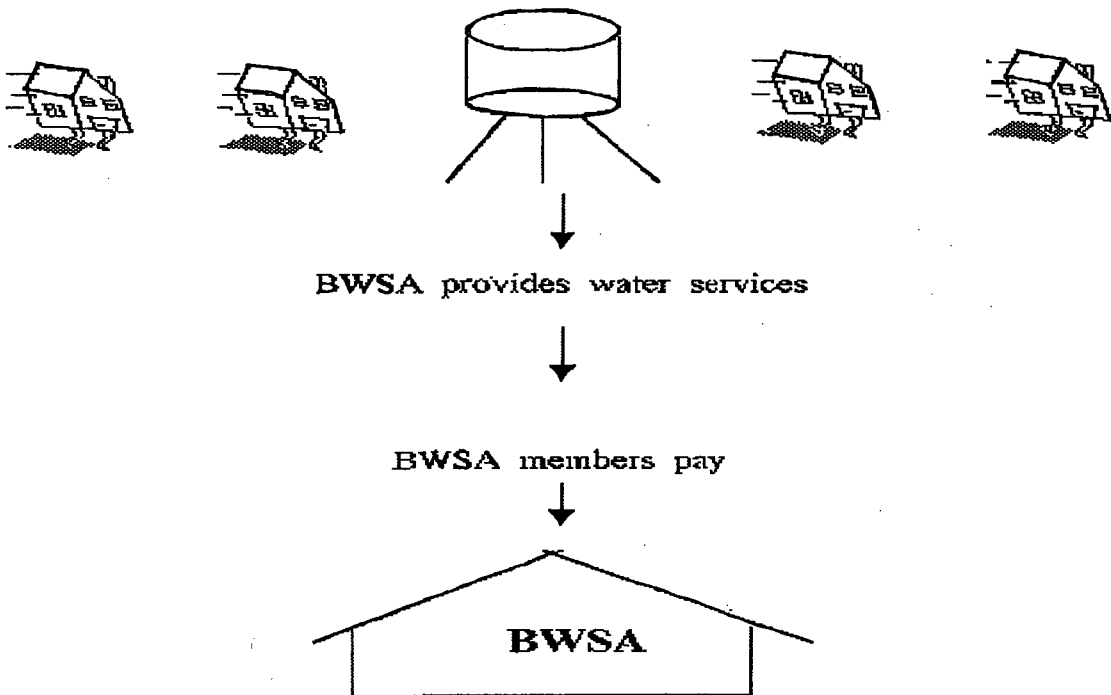
Have the small groups present their outputs to the large group. Give 10 minutes per presentation.

2.5

Integrate the small group outputs. Highlight the suggested financing schemes drawn from the small group outputs.

2.3 Give the groups two hours for

BWSA OPERATION



1. Settles expenses for O & M, Honoraria, others
2. Reserves funds for capital depreciation, interest and others

2.6 Elaborately discuss the importance of community financing and cost-sharing schemes. Emphasize the following points:

Users need not only express what they want but also demonstrate their commitment to taking action. -- *From: Participatory Evaluation. Tools for Managing Change in Water and Sanitation*

We can never overemphasize the fact that the resources of the group and the community itself are the most influential factors in improving the quality of life. Land, water, air, light,..... labor force, know-how and local investment are among the many resources that contribute far more to the success of a village scheme than money

coming from the outside. Outside funds are only effective if they complement village resources. --*From: Land and Life. Vanishing Land and Water. Organizing for Action*

3. Discussion Points

Ask the participants:

- 3.1 How did you find the activity?
- 3.2 Give your personal reaction on the suggested community financing and cost-sharing schemes drawn from the small group presentations.

4. Synthesis and Integration

- 4.1 Summarize the activity.
- 4.2 Highlight the learnings drawn from the discussions.

Fund Collection and Management

Learning objectives: To identify the common problems in the collection and management of funds for the operation and maintenance of existing water system/s in the barangay; and,

To elicit suggestions for a simple, adaptable, transparent and cost-effective method of fund collection and management in the barangay or BWSA.

Time required: Three hours

Materials needed: Manila paper, pentel pens, blackboard and chalk, hand-out on bookkeeping procedures, and samples of bookkeeping forms

Procedures:

1. Orientation

- 1.1 Tell the participants that fund management differ in individual and communal water supply systems. Explain that in the latter system, it is very important that the methods of collection and management of funds are made simple enough, transparent and cost-effective to ensure community financing.

- 1.2 Tell the participants that this session will help them in identifying and analyzing the common problems in fund collection and management in their barangay or BWSA and that, based on the results of their analysis, suggestions for improving their present system of fund collection and management will also be generated.

2. Activity Proper

- 2.1 Divide the participants into groups of five or six.
- 2.2 Instruct the small groups to answer the following questions:
- Are there communal water supply systems in your barangay?
 - If yes, are there rules and regulations regarding fee collection, management and responsible use? What are they?
 - Are there systematic and transparent accounting and financial management systems with which people are satisfied?
 - What common problems exist regarding fund

collection and management?
Why do you think they exist?

- What can you suggest to improve your present fund collection system and management?

2.3 Give the groups one hour for answering the questions and writing the results of their discussion in the Manila paper provided them.

2.4 Have the small groups present their respective outputs to the big group. Allow 15 minutes

per presentation.

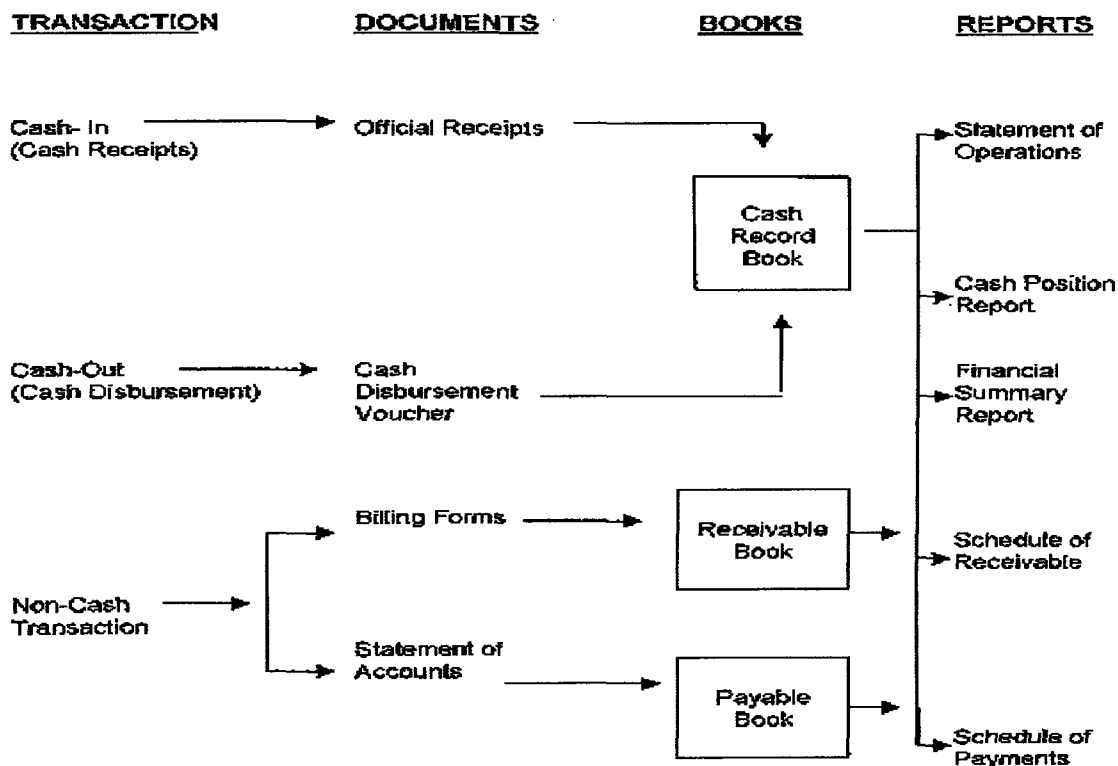
2.5

Integrate the outputs of the different groups. Highlight the commonalities of problems and suggestions for improving their systems of fund collection and management. Draw conclusions from the discussion.

2.6

Ask the participants if there are BWSA bookkeepers in attendance. If there are bookkeepers, invite at least two of them to come in front. If there is no one, invite at least

ACCOUNTING PLAN



two participants who have some knowledge of bookkeeping procedures of their respective BWSAs.

- 2.6 Instruct them to explain the bookkeeping procedures in their respective BWSAs and to illustrate on the blackboard formats of the books of accounts, vouchers, official receipts, and financial statement forms that they currently use.

[NOTE: In case there are no BWSA bookkeepers in attendance and nobody among the participants is knowledgeable about the subject, distribute the hand-outs and show the sample bookkeeping forms. If transparencies of these are available, project them so participants are able to see.]

- 2.7 Instruct the rest of the participants to comment on the procedures and forms that were presented. Ask suggestions for simplifying the procedures and the forms.

3. Discussion Points

Ask the participants:

- 3.1 How will your BWSA or organization make sure that the collection and management of funds for the operation and maintenance of the community water supply system is simple, adaptable, transparent and cost-effective?

4. Synthesis and Integration

- 4.1 Summarize the main points and draw conclusions from the discussion.

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