

Lesson Plan 6: Water Conservation (Rain Water harvesting and Ground Water Recharge)



90 minutes

Lesson Description



The focus of this lesson is to share the importance of water conservation, various techniques to conserve water along with use of alternate source of water; rain water as a solution to water scarcity.

Learning Outcomes



1. Explain the importance of water conservation
2. Describe the RWH system (general overview on RWH and GWR)

Materials



- Brown sheet paper
- Permanent Marker
- Masking tape
- Meta cards
- Sticky Note
- Bottle
- Glass
- Pictures of water scarcity
- Documentary (Jalpari)
- Picture of woman waiting for water in rain
- Projector
- Computer

Preparation



- Write the learning outcomes or lesson description on flip chart paper
- If using the PowerPoint, prepare the files and projector for display
- Prepare a bottle and a glass for demonstration on water availability for consumption
- Prepare a slide related to volume of water in the world vs. amount of consumable water.
- Prepare sets of meta-cards with water related issues and probable solutions for the issues
- Video on Rain Water harvesting

Introduction

10 minutes



1. Ask participants, if they have faced any situation when they run out of water at critical times. Ex. While bathing, brushing teeth, run out of water for anal cleaning after toilet, etc.
2. Ask few participants to volunteer their answer. Share a personal experience with the remarks on necessity of water conservation. Ex. On a day, you planned to wash clothes and bath. Firstly you washed your clothes without worrying about water it consume. After washing clothes you take bath, but unfortunately you ran out of water and had to call someone for help. While waiting for help, you thought if you had used water reasonably while washing clothes, you would have had enough for next purpose.

- Summing up all points, share importance of water conservation and present the learning outcomes.

Water, its importance and use



70 minutes



- Ask to participants "What is the first word which comes in your mind when you hear the word 'Water'".
- Display the slide and introduce them volume of water in the world vs. volume of consumable water (for drinking purpose). Brief about percentage of water in human body.
Also demonstrate the volume of water available by showing a liter bottle and a spoonful of water.
Take 1ltr water in a bottle and a spoonful water, inform 1 ltr water as total water volume available on earth and spoonful water as drinkable water which accounts for source of drinking water. Ex streams, rivers, lakes, etc. Also glaciers, snow cap, etc.
- With the limited volume of water thus available, water conservation is very important. Otherwise, if water is not consumed thoughtfully, the consequence might be: (Show picture of water scarcity or people in queue to fill water and discuss further).
- Ask participants what may be reason behind this situation?
Expected answer: water scarcity, increase population, limited water sources, and no access to water resource
- Ask participants how they can sort out the issues from the individual level. For the purpose, tell participants that they are going to play a game where participants will be divided into 2 groups. In each group, participants will be given a meta-card written either a problem or a solution.

Water related issues	Possible Solution
Throwing vegetable washed water in yard	Throwing water in kitchen garden
Hand washing leaving tap open	Close tap while washing hand
Brushing teeth with open tap	Closing tap while brushing
Water leakage	Maintain leakage
No water to flush toilet	Reuse of washed water
Water diverted to drainage	Water diverted to pit for further use
Rain water drained on the road	Rain water harvesting
Dry water sources- well, <i>Kuwa</i> , stone spout	Rain water harvesting and ground water recharge
Poor household hygiene (throwing grey water haphazardly in yard)	Proper management of grey water for further use/ reuse of grey water
Tap water is insufficient for all household chorus	Rain water harvesting

- In a minute, participants have to find their partner and have to assemble in a line in a middle of the training hall. Ask if participants are clear.

7. Divide participants into 2 groups and distribute the problem and solution containing meta-cards to two groups respectively.
8. Inform participants to start their activity and after a minute ask them to stop.
9. Ask participants to share their issue and solution one by one. Check whether participants are paired in correct order or not. If there is mistake, take suggestions from the large group and shuffle to correct partner.
10. Ask other participants to add other water wastage points and solution to reduce such wastage.
11. Ask participants to take their seat and ask them to keep the meta-cards safely as they will need it later in session.
12. Inform participants that all the water conservation ideas can be sum up in 3 core ideas.
13. As discussed earlier, in the session, revise the methods of water conservation i.e, **Reduce, Reuse and Alternative use of water**. Also remind participants about the appropriate technologies for water conservation like Eco-San latrine, reuse of water in kitchen garden, roof top farming, reuse of hand wash water in toilet flushing, etc.
-  14. After discussing about reduce and reuse; ask participants, 'what do you understand by alternate use of water?'
15. Take few ideas from participants and inform them to look if their idea coincides with the actual or not.
16. Continue the slides, providing brief information on water source: Surface water, Ground water and Alternate source or rain water.
17. Inform that rain water harvesting is taken as alternate water source. Present the picture of woman waiting for water with umbrella and describe the water from umbrella is alternate water and show the picture of upside down umbrella.
18. Present documentary screening ('*Jalpari – MaHa*' cropped scene display only RWH and Ground water recharge techniques)- (5 min for preparation and screening)
19. Open the floor for general discussion on RWH (on the idea/perspective, practice on household level or something they practice or have heard about)
20. If any of the participants is practicing the system let participants share their experiences and its benefit.
21. Share what is RWH, importance and its benefits through discussion and slide.
-  **Trainer note:** Do not forget to include RWH practice using local resources and components of RWH in the presentation slide.
22. Also introduce ground water recharge as a component of RWH unit.
23. Present the RWH video to the participants.
24. Ask participants - "What different steps can be taken at institution level to encourage RWH and GWR technologies?"- Let participants share their idea and summarize all the idea as in the dry season this can be a way out for water and especially very important for the areas with no or less access to other water sources.

Review
10 minutes

1. Ask participants to take the meta-card they got earlier in the session. Ask participants to take a look at the issue or solution that they got and ask to stand the

participants who think their issue or problem is related to reduced use of water-
check if all are correct.

2. Similarly, ask participants with reusing of water and alternate use of water, respectively.
3. Ask few participants to volunteer their idea on importance of RWH and GWR.

Reflections on Lesson