

## Lesson Plan 13: Human Excreta Management



55 minutes total

### Lesson Description



This lesson introduces the five components of a sanitation system to properly manage human excreta. Participants learn about sanitation systems and discuss why the entire system must be addressed to ensure safe and sustainable sanitation.

### Learning Outcomes



At the end of this session participants will be able to:

1. Identify the five components of a sanitation system to properly manage human excreta.
2. Discuss why sanitation should be considered as a system, to ensure safe and sustainable sanitation.

### Materials



- Flipchart paper
- Markers
- Tape

Optional:

- Computer and projector
- PowerPoint: Human Excreta Management

### Preparation



- Review topic in Technical Brief: Introduction to Sanitation
- Optional: Write out each component of the sanitation system and its description on separate pieces of flipchart paper. See activity below for the descriptions. Cover the descriptions and reveal them as you do the activity.
- Introduction Option A: Print and cut out the functions and arrows of the sanitation system (1 set per group). Draw the sanitation system on flipchart paper.
- Optional: Write the learning outcomes on flipchart paper
- If using PowerPoint: Human Excreta Management
  - Review the PowerPoint presentation
  - Check that the projector is working
  - Cue the PowerPoint on the computer

**Introduction****10 minutes****Option A:**

1. Divide participants into small groups.
2. Hand out the functions and arrows of the sanitation system to each group.



3. Ask the groups to place the components in a sequential order.
4. After 3 minutes, show the framework diagram on the flipchart. Ask the groups to discuss and compare their diagrams with yours.
5. **LINK:** Ask the participants what have they created with their diagram?
  - *A system for managing human excreta*
6. Present the lesson description or learning outcomes.

**Option B:**

1. Ask the participants “What is needed to make a phone call to someone? What does that entire system look like?”
  - *The caller and receiver both need to purchase phones*
  - *The caller needs to have credit or an agreement to pay the bill for the phone call*
  - *The caller needs to know how to use the phone to dial the number*
  - *The cell phone towers need to connect the calls*
  - *The receiver needs to pick up the phone*

2. Ask the participants “What would happen if one part of this system didn’t work?”
  - *You still might have the phone and be able to use it to play games or music.*
  - *You could get the call display and know that the person called them.*
  - *In most of the cases the call would not be made and message would not be communicated.*



3. Ask participants to now think of household sanitation as a system. Ask “Where could a sanitation system fail and what would be the consequences?” Share some answers as a large group.
  - *Contaminated environment*
  - *Contaminated drinking water*
  - *Sick people*
4. Present the lesson description or learning outcomes.

## Sanitation Systems

35 minutes



1. Explain that sanitation (or managing human excreta) is much more than building latrines and stopping people from open defecation. Sanitation is a system, rather than a single technology or a latrine.
2. Explain to participants that you are going to lead them through a story. Tell the participants to imagine that they live in a peri-urban area and have decided to build a latrine for their family. Optional: Use either flipcharts or PowerPoint as a visual aid throughout the next steps.
3. In pairs, ask the participants to discuss “What features do you want in your latrine?” Share some answers as a large group.
4. Explain that people usually first think about how it will look, type of toilet and how they will cleanse themselves. Tell participants that the term we will use to encompass all of those aspects is ‘user interface’.
5. Show participants the “*User Interface*” flipchart and read the description.

- *The things a person encounters when they use and maintain the latrine.*



6. Ask the participants “What parts of latrine are considered the user interface?” Record the following 5 components on the “*User Interface*” flipchart.

- *Toilet*
- *Slab*
- *Superstructure*
- *Latrine accessories (e.g., anal cleansing materials, a place to wash or dispose of menstrual hygiene products)*
- *Handwashing station*

7. Tell participants that they have now built a very sturdy and private superstructure, with a toilet on a smooth concrete slab, a handwashing station, and an area for women to wash their menstrual hygiene products. Ask the participants “Where does the excreta go?” Share some answers as a large group.



8. Show participants the “*Excreta Storage*” flipchart and read the description.




- *A latrine needs some type of pit, tank or chamber to safely collect and store excreta until it is emptied, removed or covered.*

9. Tell participants to go back to their imaginary latrine. Explain that they have been using it for a few years now and when they look down the hole they can see that the excreta is close to the top of the slab. They want to keep using it for years to come. Ask the participants “What do you do now?” Share some answers as a large group.




10. Show participants the “*Emptying and Transport*” flipchart and read the description.

- *Full latrines must be either emptied or moved to a new location. Latrines should be emptied in a safe and hygienic manner by well-equipped and protected workers who transport the sludge to a treatment, use or disposal site.*

11. Tell participants that the pit is now emptied and the excreta is ready for transport. Ask the participants “What do you need to figure out next?” Share some answers as a large group.
12. Explain that most people think of disposal first. It’s important to think about disposal and ensure that the excreta is put somewhere where it will not come in contact with people or contaminate the environment. However, there are also options to first treat the excreta to ensure its safety, like composting for instance.
-  13. Show participants the “*Treatment*” flipchart and read the description.
  - *It is important to treat excreta before use and sometimes disposal. Treatment helps to protect the environment and public health from fecal pathogens and other contaminants.*
14. Explain to participants that after treating the excreta you can either dispose of it safely or you have the option to use it. The practice of using excreta in agriculture has been used for centuries. Excreta is nutrient rich and can add a lot value to crops and soil. If it is going to be used for this purpose, it must be treated properly to ensure safety. This is known as ecological sanitation.
-  15. Show participants the “*Use or Disposal*” flipchart and read the description.
  - *Using or disposing treated excreta in ways that are the least harmful to people and the environment.*
-  16. In pairs, ask the participants to discuss “Why is it important to consider all of the components of a sanitation system when you build a latrine?” Share some responses as a large group.
  - *Each component should be taken into account to ensure that the technology choices will support the ultimate goal of keeping excreta out of contact with people and the environment.*
  - *Often sanitation projects only consider the user interface and excreta storage. There are no clear plans of what should be done when the latrine is full. By not thinking through the entire system you cannot have a sustainable project or long-term sanitation use.*
  - *Many of the technological and user decisions made for each component will affect the other components and technologies. You need to make sure that all the technologies work together in order to create a functioning sanitation system.*

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**Review****10 minutes**

-  1. Explain that participants will work in groups to create actions to help remember the 5 components of a sanitation system. They will come up with one action for each component. After 2 minutes, they will share their actions with the large group.
2. Divide the participants into 3 groups. Give them 2 minutes to come up with their actions.
3. Ask each group to share their actions.





4. Optional depending on time: Call out each component and get the whole group to do their action. Do this more than once and when participants are comfortable, you can start calling them out of order.

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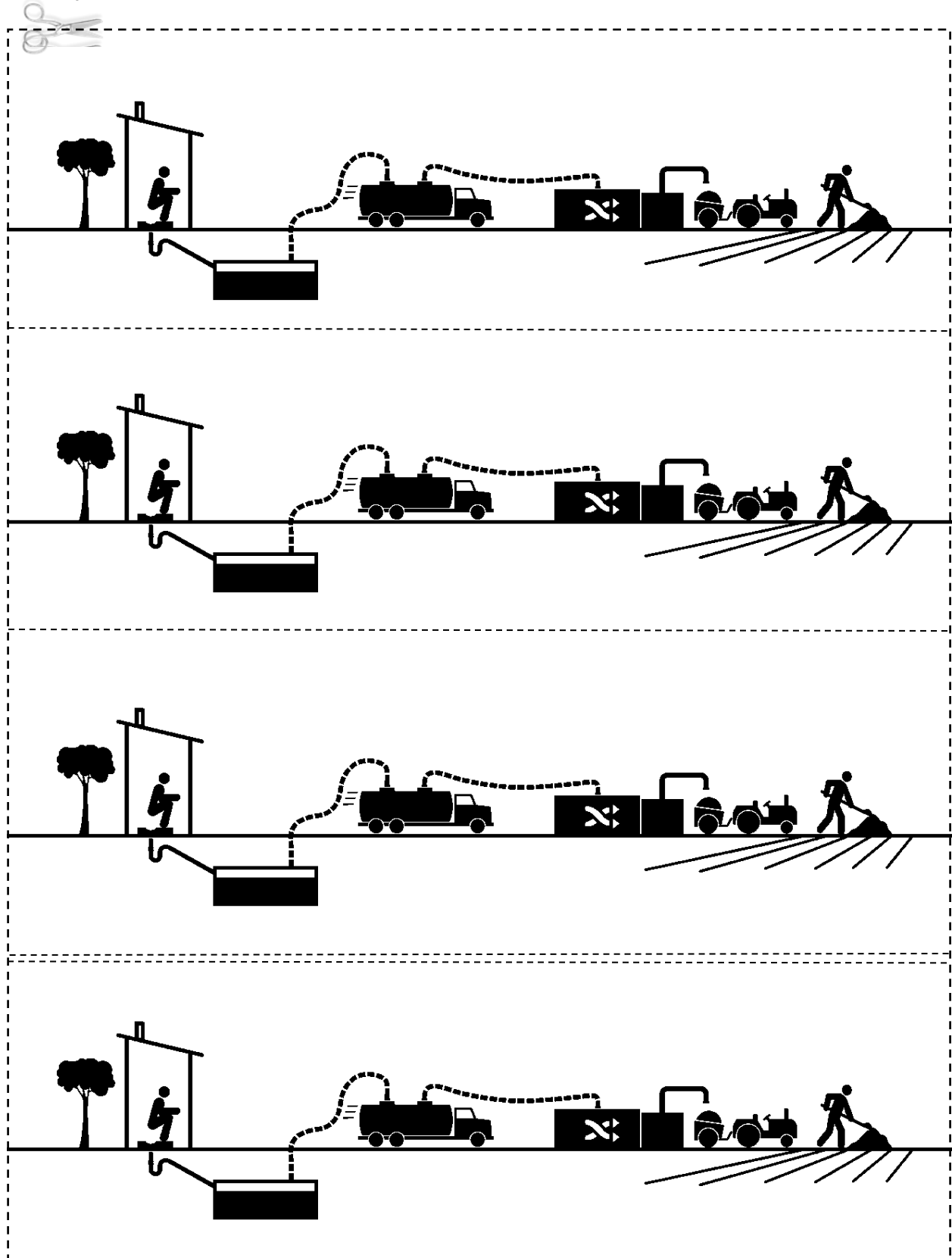
**Reflections on Lesson**

## Introduction Activity: The Sanitation System



<b>User Interface</b>	
<b>Excreta Storage</b>	
<b>Latrine Emptying and Sludge Transport</b>	
<b>Sludge Treatment</b>	
<b>Sludge Use or Disposal</b>	

Activity: Sanitation Service Chain



Posters: Sanitation Service Chain

