



Action Manual

Participation-Oriented Safety Training for the Faecal Sludge Emptiers

Action Manual on Occupational Safety and Health



Demonstration of Pro-poor Market-based Solutions for Faecal Sludge Management in Urban Centres of Southern Bangladesh

Project partners:



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The views expressed in this report are those of the authors and do not necessarily reflect the views of SNV Netherlands Development Organisation.



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Preface

In Bangladesh, the most commonly used sanitation options such as pit-latrines and pour-flush latrine use pits or septic tanks for containing faecal sludge (FS) for a certain period of time which require regular emptying when the tanks or pits become full. This emptying and disposing of faecal sludge is usually performed in a traditional (manual) way by a certain group of people in the society known as “Horijon” or “Sweepers”. Recently, locally innovated technologies (mechanical way) have been introduced by a few city corporations and paurashavas (municipalities) in a more efficient and environmentally sensitive manner.

A large number of faecal sludge emptiers involved in faecal sludge management activities (both manual and mechanical) around the country. Both the manual and mechanical way of emptying, transporting and disposing of faecal sludge is a serious concern from the point of health and safety issues of the workers.

The working processes involved in these operations expose the emptiers to hazardous working conditions. The threat of fatal accident, injury and work related diseases in this occupation are extremely high and require urgent attention to minimize the safety and health risks towards workers and their families who lack financial and social safeguards.

Occupational health and safety measures are fundamental rights of the emptiers and ensuring safer working conditions is a legal accountability of the principal employer or hiring authority along the value chain of faecal sludge management work. Sound safety and health practices at work reduce workers’ vulnerability, increase productivity and lead to an improved protection of the environment.

Thus, the broader objective of the Participation Oriented Safety Training (POST) manual is to support emptiers and employers involved in this field to improve their knowledge of occupational health and safety in both manual and mechanical operations.

The present training manual aims to address the risks involved in faecal sludge handling and emptying operations through the implementation of participation based model. And to provide the skills required to fulfil the role of a field level occupational health and safety (OHS) educator / trainer and increase collective participation between employers and workers in this regard.

This POST training manual is a result of joint efforts of the SNV Netherlands Development Organisation, Bangladesh and OSHE Foundation with a hope that it will serve as an effective instrument on improving working condition and protection of the faecal sludge emptiers in the country.

It is also expected that this training manual contributes towards minimizing work-related risks and health exposures, promotion of good health and safety practices, and development of safe and environment-friendly faecal sludge emptying activity through the collective efforts of relevant authorities, employers and emptiers.



Abbreviations

CPR	Cardio Pulmonary Resuscitation
FS	Faecal Sludge
FSE	Faecal Sludge Emptier
FSM	Faecal Sludge Management
JP	Jhenaidah Paurashava.
KCC	Khulna City Corporation
KP	Kushtia Paurashava.
MCQ	Multiple Choice Questions
OSH	Occupational Safety and Health
OSHE	Bangladesh Occupational Safety, Health and Environment Foundation
POST	Participation Oriented Safety Training
PPE	Personal Protective Equipment



1. Introduction

Participation-Oriented Safety Improvements Training (POST) for the emptier in faecal sludge management is an action training manual designed for improving the safety, health and working conditions of emptier in faecal sludge emptying and transportation activity at household and community level.

The POST manual intends to promote joint efforts and participatory safety improvement actions between the Faecal Sludge emptiers and community towards safer faecal sludge collection, transportation and disposal operations.

Overall objectives:

The overall objective of the Participation Oriented Safety Training (POST) is to facilitate the emptiers, supervisors, contractors and principal employers involved in this field to improve knowledge and awareness on occupational health and safety in both manual and mechanical faecal sludge operations, address work related risks involved in faecal sludge handling and emptying operations, improve knowledge and skills towards identifying hazards and risks at work and assist them to develop participatory safety improvement actions and promotion of safety culture at community level.

Methods:

- Apply participatory training approach
- Link working conditions to safer faecal sludge collection, transportation and disposal
- Promote experiential learning
- Learn from existing good safety practises
- Promote workers' active involvement and networking
- Promote dialogue and cooperation between the faecal sludge workers, their hiring authority and local community

Targeted Participants:

This field level trainers' training programme is designed for the labour contractors and leaders of faecal sludge emptiers, concerned work supervisors, Health and Hygiene personnel at city authorities and horijon community leaders, who are willing to serve as local trainers / OSH facilitators or activists at the targeted community.

Training materials/Aids/Equipments:

Pictures, sketches, video-projectors and screens, poster papers, markers, job cards, post it, black/white boards, flip charts, hand-out for participants (those who can read and write), first aid box, demonstration of a vacutug at different relevant sessions.

Duration of this basic training:

One and half days

Selection and contact of participants for the POST Training

Through an introductory video or programme flyers or organising local level discussions or meetings, POST facilitators will recruit training participants.

A very good way to get this process done is to find which faecal sludge emptier communities/ groups in the local area have high interest and needs in improving their working conditions.

This can be done through brainstorming with relevant workers, health and hygiene inspectors / focal persons at the City Corporation / Paurashava(s).

Selection Date and Venue:

The organizer will select the date and venue and it will be shared while inviting participants.

Selection of Participants:

Organize discussion meetings at residential areas of faecal sludge emptiers to identify potential participants for the training. The association of faecal sludge emptiers or municipal bodies at local level may assist to fulfill this purpose.

Contact with Participants:

Phone or send invitation letters to potential participants; make appointment with potential participants (if necessary); establish contact at the residential areas of the potential participants.

Sample Training Schedule

Day 1

Session	Time	Subject
Registration	09:00 – 09:30	Registration
Session 1	09:30 – 10:00	Opening Session- Welcome speech, self-introduction and programme orientation
Session 2	10:00 – 10:15	Pre-test assessment
Session 3	10:15 – 11:15	Basic concepts on OSH in FSM Hazard and Risk at work place
	11:15 – 11:30	TEA BREAK
Session 4	11:30 – 01.00	OSH in FSM : Current and Good Practices (11.30-12.15) <ul style="list-style-type: none"> • Screening of a documentary on manual + mechanical emptying • Identifying / Comparing between Current & better and safer (ideal) Practices in manual and mechanical emptying in different steps Group work and presentation (12.15-01.00)
	1:00 - 2:00	LUNCH
Session 5	02:00 – 02.45	Personal Protective Equipment (PPE)
Session 6	02.45-03.15	Promoting Participatory Safety & Health Improvement Actions in FSM <ul style="list-style-type: none"> • Technical Action Area # 1: Safe Faecal Sludge Handling and Community Cooperation • Technical Action Area # 2: Safety of Faecal Sludge Collection Truck • Technical Action Area # 3: Work Environment and Personal Protective Equipment (PPE)
	3:15 - 3:30	TEA BREAK
Session 7	03:30 – 04:15	<ul style="list-style-type: none"> • Technical Action Area # 4: OSH related Welfare Facilities • Technical Action Area # 5: Work Organisation • Technical Action Area # 6: FS Protocol
Session 8	04:15 – 05:00	Closing of first day training and briefing for 2nd day

Day 2

Session	Time	Subject
Session 9	09:00 – 09.30	Review of 1st day's contents and discussion
Session 10	09:30 – 10.00	First Aid: Conceptual discussion & exercise
	10:00 – 10:15	TEA BREAK
Session 11	10:15 – 11.00	Safety and Health Committee: Formation and Responsibility
Session 12	11:00 – 11.45	Feedback & Post-test Assessment
Session 13	11.45 – 12.15	Closing session

1ST DAY OF TRAINING

Registration of participants:

The selected participants will register themselves in a register book. If anyone can't write, the facilitators will help them in registration.

Session: 1

Opening Session- Welcome speech, Self-introductions and Programme orientation

Objective	To welcome the participants and inform them of the purpose of this training course and provide a brief outline of the programme.
Duration	30 Minutes
Method	Self introduction
Tools	Poster paper, flip chart, white board/ black board
Outputs	Participants will get to know each other, also the trainer and the guest speakers and can have the opportunity to express their expectations from this course.

Notes for the programme facilitator:

Arrange guest speakers as well as reputed professionals on relevant field from local government authorities/ municipalities/ concerned government ministries to deliver short speeches on the importance of this training course and the need to apply its contents in FSM-related work.

The practical value of the course, its easy application and low cost safety improvements will also be stressed at the course orientation session. A brief list of the activities which will be carried out during the course, the expected outputs and logistic support for the participants will be discussed in this session.

Self introduction of participants and their expectations from the programme will also be heard in this session.



Session: 2

Pre-test Assessment

Objective	To become aware of the present knowledge level of workers on safety and health issues while emptying and transporting the faecal sludge from a pit / septic tank
Duration	15 Minutes
Method	Questionnaire-based test
Tools	Questionnaires
Outputs	Understand the present knowledge level on safety and health issues while emptying and transporting the faecal sludge from a Pit/ Septic Tank

Notes for the programme facilitator:

A set of MCQ questionnaires will be given to each of the participants for assessing their current knowledge level. What are their current practices on safety and health issues in FSM while emptying, transporting and dumping the faecal sludge from a pit / septic tank.

The facilitator will read out the questions and answer and help them to give the tick mark, in case the participants cannot read and write.

After the test the facilitator will keep record of the marks for post training evaluation.

Pre-test Assessment

Please give tick mark (✓) of the following questions.

1. **Safety at work for faecal sludge emptier is not essential**
 Agreed Disagreed
2. **Who is responsible for ensuring occupational safety & health at work?**
 faecal sludge emptiers The Paurashava / city authority
 Service recipients All parties involved
3. **Park the truck on the access road and close to the pit / septic tank. This is.....**
 Correct procedure Wrong procedure
4. **If there is a faecal sludge spillage while driving the vacutag on the street or if there is an accident.....**
 If the quantity of spillage is even very less, do not remove the sludge and leave that place before anybody notice it
 If the quantity of spillage is even very less, remove the sludge from the street, cover the sludge at road side and wash the sludge away in the nearby ditch/drain.
5. **If there is spillage or sudden spray of faecal sludge on the body of emptiers.....**
 Emptier will always alert households, children and by-standers to stay away from him/her and adverse effects contracting of fiscal sludge
 Emptier should immediately be released from duty and given opportunity to take proper wash/bath.
 All of these
6. **Use of personal protective equipment at faecal sludge empty work is not very much important?**
 Agree Disagree
7. **Washing facilities is important for faecal sludge emptier**
 True False
8. **What is First Aid?**
 Immediate and temporary treatment Cure diseases
 Visiting doctor Above all
9. **Regular period health check-up for the faecal sludge emptier is not an essential item**
 Agree Disagree
10. **Establishment of health and safety committee, organise safety training and welfare activity for the sludge emptier is not essential or a legal requirement**
 Agreed Disagree No idea



Session: 3

Basic concepts on Occupational Safety and Health In the Faecal Sludge Management Hazard and Risks at work place

Objective	To provide basic knowledge on occupational health and safety including Hazard and Risk and their importance at work places.
Duration	45 Minutes
Method	Brain Storming and Lecture Facilitator will ask participant to tell their personal experience on falling accident at work followed by discussion/inputs by trainer
Tools	Poster, video and relevant demonstrative pictorial material
Outputs	Participants will acquire knowledge on occupational health and safety including hazard and risks and could realize its importance at work. They could share this knowledge with others too after the training.

Notes for the programme facilitator:

At the beginning of the session the facilitator will check the participants' basic knowledge on OSH in FSM. Then the facilitator will discuss OSH elaborately through multimedia projector.

Hazards and Risks in emptying faecal sludge will be discussed. At the end of the session the facilitator will ensure that all the participants got basic knowledge on OSH, Hazard and Risk.

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Basic concepts on Occupational Safety and Health In the Faecal Sludge Management

The International Labour Organization (ILO) estimated that, globally, about 2.2 million people die every year from occupational accidents and diseases, while some 270 million suffer serious non-fatal injuries and another 160 million fall ill for shorter or longer periods from work-related causes. This represents an enormous toll of suffering for workers and their families.

These figures represent a considerable loss that has a negative impact on economic growth and puts a burden on society. Health and safety at work improve quality and productivity at work states that guaranteeing quality and productivity at work can play in promoting economic growth and employment. This is due to the fact that the lack of effective protection to ensure health and safety at work can result in absenteeism, in the wake of workplace accidents and occupational illnesses, and can lead to permanent occupational disability.

Health and safety at work confirms the interaction between health and safety at work on the one hand and productivity on the other hand. Investing in health and safety at work has to be looked upon as an investment rather than a cost.

According to the International Labour Organization (ILO) and the World Health Organization (WHO), Occupational health should aim at:

- the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations;
- the prevention among workers of leaving work due to health problems caused by their working conditions;
- the protection of workers in their employment from risks resulting from factors adverse to health;
- the placing and maintenance of the workers in an occupational environment adapted to his or her physiological and psychological capabilities; and
- the adaptation of work to the persons and of each person to their job.

The wide definition of health and safety is going beyond the avoidance of accidents and prevention of disease to include all aspects of the worker's well-being.

The main focus of occupational health is on three different objectives:

- (i) the maintenance and promotion of workers' health and their working capacity;
- (ii) the improvement of working environment and work to become conducive to safety and health; and
- (iii) development of work organizations and working cultures in a direction which supports health and safety at work and in doing so also promotes a positive social climate and smooth operation and may enhance productivity of the undertakings.

An occupational safety and health programme leads to greater health awareness (healthier lifestyle) and an improved motivation and commitment. These changes result in several outcomes such as more job satisfaction.



Legal Requirement:

Ensuring safety and health for the emptiers in faecal sludge management is a legal obligation for the city corporation / paurashava(s), individual principal owners (household level) and labour contractors.

For the case of faecal sludge emptying activity, relevant laws are:

- (a) Bangladesh Labour Act 2006
- (b) Environmental Conservation Act 1995
- (c) Environment Conservation Rules 1997

10 imperative observing issues in occupational health and safety

1. Be careful about own safety first and then for others;
2. Each accident is preventable;
3. Follow the rules and regulations of the organization(s);
4. Assess risks, adjourn the work and think;
5. Be careful about the safety issues in advance;
6. Do not work, in case you do not have any trainings;
7. Use modern machineries, in case of lifting and transportation;
8. Do not work in a short-cut way;
9. Follow and observe proper maintenance;
10. Stay safe and get ready.

To-dos in securing workplace safety

- Hazard Identification
- Risk Assessment
- Prioritization
- Hazard Elimination
- Develop and Implement safe work plan
- Monitoring and Evaluation
- Taking Initiatives

Hazard

A work-related hazard is any source of potential damage, harm or adverse health effects on something or someone under certain conditions at work.

Basically, a hazard can cause harm or adverse effects (to individuals as health effects or to organizations as property or equipment losses).

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Sometimes, a hazard is referred to as being the actual harm or the health affect it caused rather than the hazard. For example, the disease tuberculosis (TB) might be called a hazard by some but in general the TB-causing bacteria would be considered the “hazard” or “hazardous biological agent”.

Workplace hazards include practices or conditions that release uncontrolled energy like:

- an object that could fall from a height (potential or gravitational energy);
- a run-away chemical reaction (chemical energy);
- the release of compressed gas (while, for instance, opening the lid of a pit or septic tank) or steam (pressure; high temperature);
- entanglement of hair or clothing in rotating equipment (kinetic energy);
- contact with electrodes of a battery or capacitor (electrical energy); and
- accidental spillage of faecal sludge in an area frequented by children as well as adults.

Types of hazards are:

- **biological** - bacteria, viruses, insects, plants, birds, animals, and humans;
- **chemical** - depends on the physical, chemical and toxic properties of the chemical;
- **ergonomic** - repetitive movements, improper set up of workstation;
- **physical** - radiation, magnetic fields, pressure extremes (high pressure or vacuum), noise, physically getting inside of a pit / septic tank;
- **psychosocial** - stress, violence, stigma;
- **safety** - slipping/tripping hazards, inappropriate machine guarding, equipment malfunctions or breakdowns; smoking while opening the tank-lid and desludging.

Risks

Risk is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss.

For example: The risk of carrying out manual emptying could be expressed as “manual emptiers getting exposed to harmful gases are 15 times (for example) more likely to die of ill health than other category of cleaners”. Another way of reporting risk is “a certain number, “Y”, of smokers per 100,000 smokers will likely develop lung cancer” (depending on their age and how many years they have been smoking). These risks are expressed as a probability or likelihood of developing a disease or getting injured, whereas hazards refer to the possible consequences (e.g., lung cancer, emphysema and heart disease from cigarette smoking).

Factors that influence the degree of risk include:

- how much a person is exposed to a hazardous thing or condition (inhaling poisonous gas, contracting / getting exposed to faecal bacteria);
- how the person is exposed (e.g., unprotected breathing while desludging, getting inside a pit / containment and inhaling gas, skin contact with faecal sludge); and
- how severe are the effects under the conditions of exposure.



Session: 4

Occupational Safety and Health in Faecal Sludge Management: Current and ideal Practices

- Screening of a documentary on manual and mechanical emptying of pit/septic tank
- Identifying / Comparing between current & better and safer (ideal) practices in manual and mechanical emptying at different steps

Objective	To show existing manual and mechanical practices of emptying and identify lack of measures in ensuring health and occupational safety in the processes.
Duration	45 Minutes (15 min. For short video presentation + 30 min for group discussion+ 15 min for presentation)
Method	Video screening, group discussion and presentation
Tools	Multimedia projector, markers and poster paper / note books and pens.
Outputs	Participants will be able to identify any lack of safety measures and can suggest better and safer practices from their perspectives.

Notes for the programme facilitator:

A video documentary on FSM will be shown at the beginning. Participants will see the current practices of manual and mechanical emptying, transportation and disposal.

After the video presentation, the facilitator will divide the participants into small groups of 3-4. Participants in each group will be provided a case of selected current practices for group discussion. Participants would insert 'check marks' (as much as they can within this time frame) at the boxes in the accompanying sheets with identified problem areas and note down suggestions from occupational safety and health point of view. After the discussion, each group leader will present group outcomes orally or by poster paper followed by a general discussion.

- Screening of a documentary on manual and mechanical emptying of pit/septic tank
- Identifying / Comparing between current & better and safer (ideal) practices in manual and mechanical emptying at different steps

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Occupational Safety and Health in Faecal Sludge Management: Current Practices and ideal situation Manual Emptying

No.	Work Steps	Current practices by workers	Brainstorming for Participants Identify, what could be the ideal situation/ good practices?
1	Opening the lid / cover		
2	Waiting for passing out of the gas		
3	Mixing kerosene/ bleaching powder for blending with the sludge and transform the solid into liquid		
4	Moving the sludge through a bucket from the top		
5	Enter into the containments when the content volume is less and remain at the bottom of the tank		
6	Filled buckets are lifted to the surface		
7	Fill another container with the sludge in the bucket		
8	Carry the container to a disposal		
9	Close the pit / tank's slab with cement and sand after completing the operation		



Mechanical Emptying (Vacutug)

No.	Work Steps	Current practices by workers	Brainstorming for Participants Identify, what could be the ideal situation/ good practices?
1	Park the truck on the access road as close to the pit/ septic tank as possible and secure the truck using wheel chocks		
2	Layout and connect the hoses from the truck to the septic tank or pit to be emptied		
3	Open the septic tank or pit		
4	Connect the hose with the vacutug for removal of FS		
5	Contain the odor and break up FS that has agglomerated into a solid mass by using kerosene		
6	Inspect the system once emptied		
7	Secure the septic tank/ pit lid and fold away the hoses		
8	Remove the wheel chocks and drive the truck to the nearest approved disposal site		

Session: 5

Use of Personal Protective Equipment (PPE)

- Screening of a documentary on manual and mechanical emptying of pit/septic tank
- Identifying / Comparing between current & better and safer (ideal) practices in manual and mechanical emptying at different steps

Objective	To show need for using PPEs in FSM services and give a demonstration to the participants how to use them.
Duration	45 Minutes
Method	Lecture with practical demonstration
Tools	Photographs, demonstration of applicable PPEs etc.
Outputs	At the end of this session participants will get to know about the PPEs and their effective use in operations.

Notes for the programme facilitator:

At the beginning of the session, the facilitator will check with participants' knowledge about PPE.

The facilitator will discuss Personal Protective Equipment (PPE) in details. He will show some PPE practically.

Finally conduct a demonstration/role play on safe use of PPE.



What is Personal Protective Equipment (PPE)?

Protective clothes such as a safety helmet and gloves or other protective equipment such as ear plugs are a practical way of protecting yourself against safety risks.

Protective gear or equipment meant to be worn or held individually as protection against specific or multiple health or safety risks is known as Personal Protective Equipment or PPE. Though it cannot guarantee the complete shield against injury, it reduces the risk from that exposure to a large extent.

When to use PPE?

Personal protective equipment only enters the picture when there is absolutely no other way of limiting the risks e.g. by simply eliminating them or by using a protective partition enabling you to avoid contact.

This means it is preferable to look for solutions that eliminate the need for personal protective equipment. In other words, PPE is used as a last resort if there is a residual risk that can't be eliminated through technical measures or collective means of protection. PPE does not prevent accidents from happening, it can only protect you against the possible consequences.

Is there any employer's obligation?

The employer is responsible for providing and maintaining PPEs. This can be a pragmatic approach since if a worker (be they employees, contractors, temporary or agency staff) is engaged at an employer's workplace then it is in the employers interests to ensure that any protective clothing provided is safe for use. The employer is responsible for ensuring that everyone applies the PPE correctly. This is firstly done by the supervisor who has to set a good example but the following elements are also important: Employees must receive sufficient information and instructions on the use of PPE. Arrangements should be made for maintenance, cleaning, decontamination, inspection repair and replacement of PPE.

What is the obligation for the emptier?

As an fecal sludge empties you are obliged to use the PPE placed at your disposal by the employer. You are under an obligation to use the PPE correctly, check it frequently, take care of it and ensure its safe storage, exactly as prescribed by the employer.

Operating requirements

PPE that is provided by the employer must be suitable for the risk for which it is intended without constituting a risk itself. Thus it must be adjusted to the circumstances of the workplace. Personal protective equipment must not only be effective but must also be ergonomically suitable. This includes providing sufficient comfort for the user and being individually adjustable (e.g. safety helmet).

Types of PPEs

There are many kinds of personal protective equipment. The nature of the risk determines what PPE is required. Protection is available against dust particles, extreme temperatures, noise, electrocution, falling objects, etc. Depending on the risk a further distinction is made on the basis of the body part that needs to be protected e.g. the eyes, ears, head, hands, feet or respiratory system.

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PPE can be considered in three categories: -

- 1: protection against simple risks (e.g. aprons)
- 2: significant risks (e.g. safety shoes)
- 3: life-threatening risks (e.g. compressed air equipment)

Eye, Face and Hearing Protection

Eyes

Eye protection comes in different forms. There are safety glasses, wide vision goggles, face shields, welding goggles and welding masks.



Safety glasses

Safety glasses have lenses in tempered glass or synthetic material. The frame is non flammable and may be equipped with side shields. Safety glasses provide protection against flying particulates or chemical splashes.

USE:

- never rest your glasses on the lenses
- those who already wear glasses should use goggles or safety glasses with corrective lenses

MAINTENANCE:

- clean the glasses under running water and rub dry with a soft cloth

SUITED FOR THE FOLLOWING ACTIVITIES:

- work involving risk of eye injury
- grinding, milling, turning, ...
- working with breathing air
- painting, varnishing, transferring and mixing hazardous products

REPLACEMENT IS NECESSARY in the event of damage (e.g. scratches) and wear and tear.



Face shield

Face shields have a synthetic or metal mesh visor that protects the entire face. They may be equipped with a chin cup. Face shields protect the face from flying particulates, chemical splashes, dust and hazardous liquids. They are ideally suited for working above head height or for use with high-pressure cleaners.

USE

- a face shield can be combined with safety glasses
- face shields for cleaning activities involving high-pressure cleaners and for jobs involving acids must be equipped with a chin cup

MAINTENANCE

- clean the visor under running water and rub dry with a soft cloth

SUITED FOR THE FOLLOWING ACTIVITIES

- work involving risk of eye and/or facial injury
- cleaning activities with high-pressure cleaners
- working above head height
- working on live electrical installations (arcs)
- working with chemicals
- less suitable as protection against upward splashes

REPLACE in case of damage / wear and tear.

Hearing protection

Hearing

Those working in an environment with harmful noise can protect themselves with ear defenders. Make sure you have adequate hearing protection, because hearing damage caused by prolonged exposure to high noise levels is permanent and absolutely irreversible!

Wadding or pods

Wadding or pods consist of plasticized wadding and offer limited protection. The maximum attenuation ranges from 5 to 15 decibels. Pods cannot be washed or cleaned in any way and cannot be reused.

Plugs

Plugs consist of preformed synthetic material or mouldable synthetic foam. They can be rolled between thumb and forefinger and inserted into the ear. Their maximum attenuation factor is 20dB(A).



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Universal ear plugs

Universal ear plugs are specially formed pods in foam rubber or soft plastic that are sometimes attached to a brace worn around the neck. Depending on the pitch they provide an attenuation of 15 to 30dB(A).

Ear muffs

Ear muffs look like a large pair of headphones. They close off the ears to the sounds of the environment. The attenuation factor depends on the type of earmuffs and the pitch of the sound. Ear muffs have the highest attenuation factor of all hearing protection aids because they completely envelop the ear.



USE

- adjust the height of the muffs so the headband is resting on your head

MAINTENANCE

- frequently clean the seals with soft soap and water

ATTENUATION

- up to ± 27 dB(A)

REPLACE

- replace headband if bent out of shape
- replace the ear cushions in case of damage, tearing or leaks (cushions filled with liquid)

Respiratory protection

Filtering respiratory protective equipment

With filtering respiratory protective devices the breathed air is simply filtered via a mask. These masks are not capable of supplying oxygen themselves and can only be used if the ambient air contains small concentrations of a dangerous substance.

The filters in these masks are either integrated in the mask or they can be replaceable filter canisters. There are two types of filter: particle filters and gas filters. A particle filter only protects against dust or mist, whereas a gas filter offers protection from gas, vapor, smoke, mist and dust.





Half masks:

Half masks are usually made of a kind of rubber. They fit snugly around the mouth and nose and are attached to the head with straps. They can be used with compressed air or as a dust mask. The filter is either inserted in the mask or screwed on.



Full face masks:

These masks cover the entire face. Just like the half masks they can be used with compressed air or as a dust mask. An added advantage is the fact that they also protect the eyes and can therefore be used in environments that are dangerous to both eyes and lungs.

Self-contained respiratory protective equipment

With self-contained respiratory protective equipment you don't breathe the ambient air; you directly use the air supply from a breathing air cylinder (e.g. a compressed air cylinder worn on your back) or fresh air is supplied via a hose. These masks are referred to as 'self-contained respiratory protective equipment' because the user is no longer dependent on the ambient air. They are used for protection when there are highly toxic substances, in case of high concentrations of hazardous substances and in oxygen deficient environments. Since your life depends on this equipment you need to know that you have the lung capacity and function to be able to use it. You should be medically tested and approved and follow special training to be allowed to work with a compressed air mask or fresh air mask. After all, improper use may have lethal consequences.



Head Protection

Only a safety helmet protects the head adequately against falling materials or impacts. That's why wearing one is both necessary and in most countries on building sites and for certain maintenance activities.

Safety helmet

A few things have to be kept in mind with regard to a safety helmet, because a faulty safety helmet offers little or no protection and provides a false sense of security. Check frequently whether the suspension is still adjusted to your head. Replace your safety helmet in case of damage or when it has suffered a heavy impact. The impact may have damaged the outer shell or the suspension even though both appear undamaged.

Do not decorate your safety helmet with stickers or paint. This may affect the integrity of the safety helmet and hide possible cracks. Metal safety helmets are prohibited for industrial applications because they conduct electricity.

Replace your safety helmet at set intervals. The life of your safety helmet is determined by the materials and by use: three years for polyethylene hats and ten years for glass fibre hats. Don't place your safety helmet in the sun. This subjects the hat to UV rays, which may cause your safety helmet to become brittle and less tough.



1ST DAY OF TRAINING

Body Protection

Hand Protection

You can protect your hands and arms with gloves or cuffs, whether or not equipped with a sleeve. Gloves are available in various materials and it is important to select the right material for the right job.

Commonly used materials include leather, rubber, PVC, vinyl, ... Gloves made of textile or leather or a combination of both are usually suited for working with rough materials (concrete, brick, ...). Synthetic gloves protect against hazardous liquids / chemicals



Types

There are many different types of gloves that each suit their own purpose such as protection against cold, heat, sharp objects, radiation, chemicals, corrosive or heavily polluted products and electric risks. Sometimes you can also wear gloves against the risk of contamination or for reasons of hygiene when e.g. you come into direct contact with food.

Safe Use

Be careful, however, not to wear gloves near rotating parts. Your glove, and therefore your hand, can get caught between those moving parts.

Do not wear leather or textile gloves when handling chemicals. Wear your gloves in the correct manner to avoid chemicals from running into your sleeve. Replace worn gloves and also shoes that have come into contact with toxic substances.

Foot Protection

Also for foot protection there is a different kind of protection for every risk. We all know safety shoes and safety boots. They are made of synthetic materials, rubber or leather and are available in different leg heights.

Types

Good protective footwear has a steel tip to protect the toes, a steel midsole to protect the feet e.g. against penetration by nails and a non slip sole to keep the wearer from slipping. Shoes are also available with special soles and different kinds of fastening systems in order to keep from damaging products for example.



Safe Use

In order to make safe use of your safety shoes you need to maintain them properly. Oil them if necessary to keep them watertight. Don't dry wet shoes by placing them on or in front of a radiator or any kind of heating element as this would cause cracks. Replace worn shoes and shoes that have been in contact with toxic substances.



Body protection

Apart from the work clothes already used for certain functions, special protective clothing provides additional and often necessary protection. Protective clothing is available in different models and materials e.g. overalls, disposable clothing, all-weather clothing, thermal underwear, rainwear and high visibility clothing.

Types

Your protective clothing should provide protection against specific risks such as toxic substances, heat, cold, etc.

Overalls are mainly meant to provide protection against dirt. When working in a hot environment, near a fire or in a workplace with fire risks, you should wear non flammable or fire-retardant overalls.

Disposable clothing is worn just once and thrown away. High-visibility clothing guarantees the visibility of the employee e.g.



Safe Use

Dirty clothes must be cleaned or replaced immediately. Have damaged clothes repaired immediately or simply replace them. Avoid overalls with wide sleeves or loose flaps that can get caught between the moving or rotating parts of a machine.

Session: 6

Promoting Participatory Safety & Health Improvement Actions in Faecal Sludge Management

- **Technical Action Area # 1:** Safe Faecal Sludge Handling and Community Cooperation
- **Technical Action Area # 2:** Safety of Faecal Sludge Collection Truck
- **Technical Action Area # 3:** Work Environment and Personal Protective Equipment

Objective	To address the safety issues in everyday faecal sludge collection, transportation, and disposal works and include improvements points that can be implemented at low cost through cooperation among emptier, management/principal employers and community.
Duration	45 Minutes
Method	Power point presentation, brain storming of participants, trainer's inputs followed by question and answers.
Tools	Projector, Poster paper, demonstration of relevant pictures
Outputs	At the end of this session participants will be able to ensure faecal sludge management in a safe and healthy way. They will be well equipped in handling, emptying, collecting and transporting faecal sludge on more safer and systemic manners.

Notes for the programme facilitator:

The facilitator will make 30 min. presentation on different technical areas through a projector by power point slides or by using flip charts/poster papers. After the presentation facilitate open discussion, asked participants to any questions they have in mind on discussed matter and answering questions on easy language.



⚡ **Technical Action Area # 1** **Safe Faecal Sludge Handling and Community Cooperation**

(Checkpoints 1 - 2)

There are many practical ways to ensure safety in faecal sludge handling. This session provides some hints for both faecal sludge collectors and the community to facilitate their cooperation in the safe and efficient handling of faecal sludge.

Check point # 1: Opening of the pit and storing the collected Sludge safely at the worksite

Check point # 2: Size and Design of sludge collection containers and their uses in work processes from the point of workers health and safety issues

✔ **Check point # 1**

Opening of the pit and storing the collected Sludge safely at the worksite

Benefits for faecal sludge emptiers and communities

Opening of the pit carefully and safely contributes to reduce accident risks and efficient faecal sludge emptying and benefits both faecal sludge emptier and respective communities.

Faecal sludge is often heavy and difficult to handle. Good sludge storing will improve the safety of faecal sludge emptier, increase the efficiency of their work, and contribute to developing clean communities.

Needless to say, communities where faecal sludge and faecal sludge containers are scattered are not hygienic & comfortable places to live in.

There are many simple, low-cost measures to improve faecal sludge storage.

How to improve

1. Observe faecal sludge emptying points at household or community toilet facilities. Are the septic tank/ Pits are well sized for work and well-organized?
2. Select primarily faecal sludge storage points in a place that is safe and convenient for both collectors and the community.
3. Clean the collection areas and remove unnecessary materials from worksites after completing the work.
4. Select a primary sludge storage place from where it is easily accessible to the parking spot of the truck and the sludge collection point.

Otherwise, manual emptiers would have to walk long distances carrying heavy waste.



1ST DAY OF TRAINING

Ways to promote cooperation

Faecal sludge emptier and the community can share their ideas for joint improvements. Walk around the onsite sanitation areas together.

Discuss practical ways to improve safe storage system with them and learn from existing good practices. Make improvements in a step-wise manner, and maintain joint improvement efforts on an on-going basis.

Points to remember

Clean and well-organized pit areas can make faecal sludge collection work easier and prevent accidents.

Check point # 2

Size and Design of sludge collection containers and their uses in work processes from the point of workers health and safety issues

Benefits for faecal sludge emptier and communities

Faecal sludge emptier often require to handle and carry heavy containers full of high volume of sludge and have to bend frequently to lift and carry the containers during their work processes.

This may pose a high risk of back injury, pain and discomfort. There also lies a high risk of upturning the container which may cause injury to the emptier and may pollute the surrounding environment.

Therefore the size and design of the containers should be such that the emptier can easily lift and carry without bending. The workers can also work jointly i.e. two collectors can lift and carry the container together which may reduce the load on a single collector and risk of accidents.

Container should be equipped with grips/holding points and its height should be at the waist level of the workers so that they can carry it easily and safely.

Containers should be labelled with warning sign so that surrounding people can aware of the danger and stay away from it in case of any spillage.





How to improve

1. The height of the sludge container should be such that emptier can carry it without bending.
2. Container should have firm grips / holding points so that two collectors can carry it.
3. Emptier should not work in a hurry so that it may cause back muscles injury, pain and accidents.
4. Put heavy sludge in small amounts in a number of containers and in case of low high containers, raise the height of the containers to the waist level using platforms.
5. Warning label/sign should be easily visible and should be posted on the containers. If the sign is unclear, busy emptier and the surrounding people may miss the labels.

Ways to promote cooperation

There are many ways to adjust the working height of faecal sludge emptier to avoid frequent forward bending posture. Many communities already have good examples including adjusted waste storage areas and platforms for the use of containers of appropriate size. Faecal sludge emptiers know of such good examples through their everyday work.

Points to remember

- Placing of sludge container at waist level improves the work posture of faecal sludge emptier and increases safety and efficiency.
- Appropriate sized and designed containers reduce the risk of accident and injury.
- Collected sludge should be handled and stored properly and safely. The community should cooperate in preventing injuries and accidents.

1ST DAY OF TRAINING

Technical Action Area # 2 Safety of Faecal Sludge Collection Truck (Mechanical + Manual operation)

(Checkpoints 3 - 4)

Faecal sludge emptying trucks are the motorized vehicle for efficient faecal sludge emptying. Emptier, faecal sludge truck drivers and the community can jointly enhance the safety of faecal sludge emptying trucks through their cooperation.

The safe operation of faecal sludge trucks contributes in efficient faecal sludge management systems.

Check point # 3: Ensure the safety of the collection truck

Check point # 4: Cleanliness of the Truck

Check point #3

Ensure the safety of the collection truck

Benefits for faecal sludge emptier and communities

Faecal sludge collection trucks are different in terms of size and functions, from ordinary trucks. It is important to designate a specific place in commercial or downtown areas for safe parking of the truck.

No other vehicles should obstruct its view and movement. The rotating panel installed in the hopper of the collection truck is very dangerous.

The rotating panel might roll a collector and cause a serious accident. This type of accident can also happen to members of the community if some of them come close to the truck.

The faecal sludge workers need to learn the safe procedure for collecting sludge into the suction pipe of the truck. They should also warn children not to approach the collection truck.

There are many switches and controls for operating the rotating panels on faecal sludge collection trucks. The operation of these switches should be easy to understand. The label on the switch should be written in the local language so faecal sludge emptier can read the label.

Emergency stop switches are important to prevent injuries to faecal sludge emptier and even members of the community. The emergency switches need to be clearly visible for immediate operation.



How to improve

1. Observe faecal sludge collection areas carefully and identify safe parking places for collection trucks
2. Ask for community cooperation to secure safe parking places for faecal sludge collection. The city corporation/ paurashava(s) authority can also support this community effort for safe, efficient faecal sludge collection.
3. On busy shopping and business streets, place sign boards to secure the parking place for collection trucks and prohibit the parking of other cars.



4. Guide the truck driver carefully if the collection truck has to enter narrow roads or muddy and bumpy roads to collect the faecal sludge.
5. Faecal sludge emptier should never put their arms in the suction pipe even if some sludge is stuck inside the suction pipe.
6. Protect members of the community and do not allow them to approach the back of the collection truck.
7. Do not throw anything into any rotating panel inside the collection truck.
8. The emergency stop switch of the rotating panel should be highly visible and be easily reached in case of emergency.
9. Check the conditions of all switches and control panels on the collection truck. Some control switches might also exist in the drivers' cabin.
10. Attach labels on the switches and controls to indicate their functions.
11. The labels and the instructions for operations should be written in the language faecal sludge emptier can easily understand.
12. Labels written in the language of the foreign countries should be replaced with those written in the local language.
13. Make emergency stop switches for the rotating panel clearly visible by using a bright colour so that any faecal sludge emptier can stop the panel immediately.
14. Let all faecal sludge emptiers know how to operate the emergency stop switches. Train new emptiers to know all the switches and controls.

Ways to promote cooperation

Community cooperation is essential to ensure safe parking of collection trucks. The city corporation can help in ensuring this. The community should select safe and easy-to-approach areas for faecal sludge collection and avoid narrow streets or other places that are potentially dangerous for the collection truck and people.

Once the community has selected faecal sludge emptier collection areas, it is ideal to mark the place and let all people know this is the place where collection trucks park.

Faecal Sludge emptier should closely observe the collection work and the potential dangers of the rotating parts of the collection truck.

Faecal sludge emptier should also discuss it among themselves to establish safe work procedures. Clarify the roles as to who is responsible for starting and stopping the suction pump activities. Cooperation between the team members is very important to ensure safe use of the panel.

Points to remember

- Find safe parking spaces for faecal sludge collection trucks through community cooperation.
- Clearly visible, easy-to-understand switches ensure safe and efficient faecal sludge collection work.
- Don't approach the rotating panels while they are in motion.

1ST DAY OF TRAINING

Check point #4

Cleanliness of the Collection Truck

Benefits for faecal sludge emptier and communities

Drivers of faecal sludge collection trucks need clean, comfortable and well-organized cabins.

Drivers cannot concentrate on driving if their cabins are messy and this could potentially cause an increased possibility of road accidents.

Drivers' cabins are also the places where emptier sit when moving from one collection area to another.

Drivers and emptier can enjoy talking to each other in a comfortable cabin and increase their communication for their work efficiency.

Faecal sludge emptiers and drivers need to wash their collection trucks every day after completing the work.

This is important to keep the truck clean and remove smells. The community and outsiders should not come close to the washing area.

Faecal sludge collection trucks need to be in a good condition to provide a quality service. Maintaining the collection truck in good condition is essential for safe and efficient waste collection services.

The faecal sludge collection team should check the truck condition every day to ensure the truck is well-maintained.



How to improve

1. Remove unnecessary items from drivers' cabins and make sufficient space for the comfort of the driver and fecal sludge emptier.
2. Clean the cabin after work, everyday. Rubbish, food, or water bottles should be taken out after work. It should be convenient to prepare small cleaning devices.
3. Adjust the height and location of the seats in the cabin. The driver should have a good front view and a comfortable posture for safe driving.
4. Both drivers and faecal sludge emptiers in the truck should wear seat belts while driving. Maintain the seat belts in good condition.
5. Good rear view and wing mirrors are essential for safe driving. Adjust them to the appropriate angles to secure good views for safe driving.
6. Clean windows before and after the collection work to ensure that the driver has a good view for safe driving.
7. The garage for the trucks should be equipped with sufficient water supply, hoses and other equipment to wash the truck.
8. Use safety signs and don't allow outsiders to come into the washing area.
9. Wash it from outside as much as possible.
10. Every morning before starting work, drivers should check the condition of collection trucks.



11. Check them again every day after work.
12. Faecal sludge emptiers should inform the driver of any possible problems they have found.
13. The faecal sludge collection team should have regular maintenance programmes in consultation with experienced auto mechanics.
14. Consider the security of the truck at night. Nobody except the faecal sludge collection team should enter the parking area at night and on holidays.
15. Dirty water after washing collection trucks should go into waste canals, and not directly into rivers or ponds.
16. Open the window after work and during the rest time and encourage fresh airflow in the cabin. This will also remove the bad smell.
17. Keep a First Aid Box in the driver's cabin.

Ways to promote cooperation

Faecal sludge emptier should cooperate in keeping the driver's cabin clean and comfortable. They can clean the cabin everyday as part of their team work. If someone finds any problem with the seat, mirrors, safety belts or others, they should work together to fix the problem swiftly.

Faecal sludge collectors should discuss how to wash and maintain their trucks. Members of the community should not enter into the washing area.

However, anyone who finds a problem with the faecal sludge collection trucks can inform the driver and collectors of the problem so improvements can be made.

Points to remember

- Clean and comfortable driver's cabins promote safe waste collection work.
- Well-maintained collection trucks are the basis for safe and efficient faecal sludge collection systems.

1ST DAY OF TRAINING

Technical Action Area # 3 Work Environment and Personal Protective Equipment

(Checkpoints 5 - 7)

Faecal sludge emptier works in an open-air environment. Their work is always affected by natural environmental factors such as strong sunshine, heavy rains, animals, birds and insects sometimes make problems in their works.

Hazards stemming from faecal sludge such as germs, dust and bad smell also influence their health and working conditions.

This session provides tips to reduce these risks and improve safety and health in faecal sludge collection work.

Once again, the session stresses the importance of community cooperation as they can support to improve the situation for safe and efficient faecal sludge collection and management systems.

Check point # 5: Ensure safe work environment for the faecal sludge emptiers and protect them from heat dust, and noise

Check point # 6: Faecal sludge emptier awareness on hazardous substances and use of personal protective gears.

Check point # 7: Use of fire extinguishers and portable oxygen cylinder in case of emergency

Check point #5

Ensure safe work environment for the workers and protect them from heat dust, and noise, rain and shine

Benefits for faecal sludge emptier and communities

Faecal sludge emptier required walking repeatedly from one site to another.

Safe walking from one area to another ensures effective collection work. By walking safely and not rushing, reduce the risk of accidental falls and slips, and also the risk of being hit by other cars.

Emptier should pay attention to working safely in crowded areas. They often work in downtown areas where there are many people and cars passing by. The community can cooperate to increase safety and efficiency by making safer waste collection areas.

Faecal sludge collection trucks discharge their waste into dumping sites (landfills). Emptier and drivers should know the risk of potential accidents in the dumping site and prevent them.

The roads to the sites are often not paved and can be muddy and slippery, especially when it is raining.

Faecal sludge collection work outside for long hours every day for emptying purpose. They need to avoid heat stress and prevent dehydration.





Heat from the sun increases the chance of fatigue and also affects the quality of their work. The community can help reduce this heat stress by placing faecal sludge collection areas in shaded areas, such as under a large tree.

Protecting emptiers from dust and noise is also important for their safety and the quality of their services. Dust and noise affect the health of emptiers and interrupt their work. Dust and noise also affect the quiet living environment of communities, especially in the early morning and at late night.

Collection work on rainy days is more dangerous as emptiers carry harmful waste on slippery roads. In addition, emptier sometimes have to work in a wet and humid environment and easily become exhausted. Community cooperation is required in this respect to make the work of collectors easier.

Emptier and drivers often have to work in the dark as they start their work in the early morning before sunrise. Some collectors may need to work at night for particular reasons.

Emptier should work with special caution to prevent accidents due to slipping, stumbling or falling. Collection truck drivers also need to drive safely and carefully. As much as possible, faecal sludge emptier should minimize working in the dark by adjusting their work times.

How to improve

1. Faecal sludge emptier should walk safely from one collection area to another. Pay extra attention to safe walking in crowded areas. Avoid bumping into other people.
2. Walk slowly and safely in wet or muddy areas. They are slippery. In rainy days even more attention to safe walking is needed.
3. Faecal sludge emptier should get on and off the collection truck carefully and not to be in a rush. By working this way, emptier can prevent falls from the step of the driver's cabin.
4. Drive slowly and carefully in the bumpy and unpaved area.
5. Faecal sludge emptiers and truck driver should drink sufficient safe drinking water in hot and humid days to avoid dehydration.
6. Work at a slower pace on rainy days to avoid the possibility of accidents due to slipping.
7. Suspend collection work temporarily during heavy rain. Wait until the heavy rain stops.
8. Minimize work in the dark by adjusting the collection time.
9. When working in the dark, provide a forehead lamp/torch for the fecal sludge emptier.
10. The faecal sludge emptiers should exchange ideas to ensure safe dumping procedures and propose improvements to the city corporation/employers.
11. Mention the risk of spillage and leakage of fecal sludge.
12. Wear comfortable clothes so that it can protect from heat.
13. A safety cap protects collectors from the sun and prevents heat stress.
14. Provide good quality personal protective equipment for faecal sludge emptier to ensure safe work on rainy days or in the dark.
15. The city corporation should call for public understanding about the slower service and changing collection time on rainy days.

1ST DAY OF TRAINING

Ways to promote cooperation

The Faecal sludge collection team should discuss how to move safely from one area to another, especially in the crowded downtown area.

People and car drivers in the community and shopping areas should also not force collectors and waste trucks to move quickly.

The city corporation/paurashava staff should take the lead to ensure safe procedures to dispose of the sludge at fecal sludge disposal site. The city corporation/paurashava can also plan to maintain good road conditions in the dumping sites.

The community can minimize heat stress of faecal sludge emptiers by relocating collection areas.

Working in the rain is dangerous and community cooperation and understanding are important for safe work. The community should also understand that collection services will be slower on rainy days for safety reasons.

Points to remember

- Safe walking from one collection area to another is the basis for an efficient Faecal sludge empty system.
- Know the safety risk in the dumping site and prevent accidents
- Cooperation between faecal sludge emptier and communities minimizes heat, noise and dust sources.
- Faecal sludge emptier needs to work slowly and carefully on rainy days and in the dark; this requires public understanding.

Check point #6

Workers awareness on hazardous substances and use of PPE

Benefits for Faecal sludge emptier and communities

Faecal sludge emptier should be very careful when they find unknown, sharp, broken material which may pose potential danger during handling of Faecal sludge.

Also tell members of the community to carefully handle this material.

Personal Protective Equipment (PPE) such as a safety cap, safety gloves, shoes, boots and clothes protect Faecal sludge emptier from various hazards and diseases. Safety goggles protect their eyes.

Safety gloves protect their hands from sharp items and germs. Bright coloured safe clothes help drivers





and surrounding people to see faecal sludge emptier easily working on the street and avoid traffic accidents.

PPE needs to be well-maintained. Clean them after use, and place them in a designated area. If broken or torn, fix the problem immediately or change for a new one.

How to improve

1. Wear goggles, mask and safety gloves when handling the faecal sludge.
2. Inform people in the community of the potential danger of the faecal sludge and tell them to stay away from the waste. Place a warning board if necessary.
3. Provide a safety cap, safety shoes/boots, gloves, goggles and clothes.
4. Safety clothes should be in a highly visible colour like yellow or orange.
5. Managers are responsible for providing adequate PPE to all collectors and drivers. The local government should also provide support.
6. Ensure that every faecal sludge emptier receives PPEs which fits his size and use them when they are in work.
7. Faecal sludge emptier should always use PPE while working.
8. Designate a PPE storage place to avoid losing them as well as to maintain them. Check the condition of the PPE regularly.
9. When a safety gear is broken or worn out, repair it swiftly. Don't use a broken one. If it cannot be repaired, changed for a new one.
10. Train faecal sludge emptiers in the correct use and maintenance of PPE.

Ways to promote cooperation

Ensure that the community people should know that they should not dispose of any hazardous chemicals or any other hazardous substances into the pit or septic tank other than the human waste.

Design leaflets or other information materials and distribute them among the households to inform the people of this instruction.

Points to remember

- Select and use the correct PPE for its effective use

1ST DAY OF TRAINING

Check point #7

Availability of fire extinguishers and portable oxygen cylinder in case of emergency

Benefits for Faecal Sludge Emptier and communities

Availability of appropriate fire extinguisher and portable oxygen in the truck or within the working team helps to tackle possible fire incidents at work stations or saving the life of the colleagues who get exposed in poisonous gases while working inside the pit or transporting Faecal sludge from collection point to dumping areas.



How to improve

1. Provide appropriate fire extinguisher, Portable oxygen cylinder and first-aid box in the truck or in the working team at manual operation.
2. Provide appropriate and adequate training to all faecal sludge emptier on how to use those tools in case of emergency.

Ways to promote cooperation

Confirm the availability of fire extinguisher and portable oxygen cylinder in the collection truck or within the faecal sludge collection team and everybody in the working team knows how to use them in case of emergency.

Points to remember

- Select and use the correct fire extinguisher, portable oxygen cylinder and first aid box and maintain those regularly for its effective use.



Session: 7

Promoting Participatory Safety & Health Improvement Actions in FSM

- **Technical Action Area # 4: OSH related Welfare Facilities**
- **Technical Action Area # 5: Work Organisation**
- **Technical Action Area # 6: Faecal sludge Spillage Protoco**

Objective	To address the safety issues in everyday faecal sludge collection, transportation, and disposal works and include improvements points that can be implemented at low cost through cooperation among faecal sludge emptiers, management/principal employers and community.
Duration	45 Minutes
Method	Power point presentation, brain storming of participants, trainer's inputs followed by question and answers.
Tools	Projector, Poster paper, demonstration of relevant pictures
Outputs	At the end of this session participants will be able to ensure faecal sludge management in a safe and healthy way. They will be well equipped in handling, emptying, collecting and transporting faecal sludge on more safer and systemic manners.

Notes for the programme facilitator:

The facilitator will make a 30 min. presentation on different technical areas through a projector by power point slides or by using flip charts/poster papers. After the presentation she/he will facilitate open discussion, ask participants if they have any questions in their mind on discussed matters and answering questions on easy language.

1ST DAY OF TRAINING

Technical Action Area # 4 OSH related Welfare Facilities

(Checkpoints 8 - 9)

Faecal sludge emptiers require adequate basic facilities such as safe drinking water, bathing facilities, toilets, comfortable eating places, or recreation facilities.

Appropriate work time arrangements, training and team work development to promote good work.

Check point # 8: Safe drinking water, sanitary toilets, washing and bathing facilities and eating and resting facilities available for the Faecal sludge emptier

Check point # 9: Provision of First-Aid Kits, medical assistance for injury and accidents (in case of emergency) and routine health check up for faecal sludge emptier.

Check point #8

Safe drinking water, sanitary toilets, washing and bathing facilities and eating and resting facilities available for the Emptier

Benefits for faecal sludge emptier and communities

Faecal sludge emptiers need sanitary toilets, washing facilities and sufficient safe drinking water for their well being and efficient waste collection work. The quality of work will be compromised if they don't have those facilities.

Community cooperation and understanding are required to find both appropriate toilets and washing facilities for fecal sludge emptier.

A comfortable resting corner for short breaks is needed for faecal sludge emptiers. This facility can be made at low cost. Tired and exhausted workers can be at a high risk of accidents. Fatigue also affects the quality of the work. Simple recreation facilities made by using available spaces make the fecal sludge emptiers' work-break more pleasant. Faecal sludge emptiers can enjoy sports and games. Adequate exercises would have benefits for health and are also good for team work.

Faecal sludge emptiers require proper lunch break. Afternoon work without having lunch is not recommended. Hungry emptier may make mistakes and can lead to injury or accidents. It is important to provide an appropriate eating place for workers.

Each member of the faecal sludge emptier team and the drivers, has many practical ideas for safer and easier emptying through the experiences of their everyday work. It is important to use their ideas to establish efficient faecal sludge emptying. The city corporation/ paurashava (s) and the community should cooperate in this respect.

Faecal sludge emptiers should have regular opportunities to exchange ideas for improvements. For example, they can have a 5-minute morning safety talk before starting work or monthly safety and health committee meeting.

Faecal sludge emptiers need an appropriate work schedule that avoids long working hours without breaks and can hamper their safety and health. A well-organized work schedule prevents over-fatigue and ensures the safe and efficient work of collectors.





Faecal sludge emptiers should enjoy regular weekend holidays as well as seasonal long holidays. This is particularly important to make a balance between their family lives and work life. After weekend and long holidays, faecal sludge emptiers can return to work with a fresh attitude.

How to improve

1. A sufficient number of toilets and wash basins should be available for the faecal sludge emptier.
2. It is ideal for the faecal sludge emptiers to take a shower after emptying work and before going home.
3. The faecal sludge emptiers should have washing facilities for their uniforms and also lockers to store them.
4. Establish resting corners for the faecal sludge emptier. Start with the simple facilities such as tables, chairs or benches and improve them gradually. Exchange ideas with other emptier.
5. Provide simple board games, news-papers or magazines in the resting corner for the faecal sludge emptiers.
6. It would be nicer if the resting corner could have clean drinking water, and facilities to make tea and coffee.
7. Ensure lunch breaks and find an appropriate place to have lunch.
8. The eating place should have washing facilities for faecal sludge emptier to wash hands before having lunch. If there are no washing facilities, an option is to wash hands and then move to an eating place.
9. Schedule a short meeting of the faecal sludge emptier team to improve health and safety condition in the work process. They should have many ideas from their work experiences. Based on the discussion, try to come up with concrete improvement proposals.
10. Ask for cooperation from the city corporation/paurashava(s) and the community. Invite them to join the discussion to make their ideas to materialize.
11. Make the meeting a regular practice among the faecal sludge emptying team. Five-minutes morning talks everyday on safety and health, or monthly occupational safety and health (OSH) committee meetings can be arranged.
12. The work time per day should not be longer than around 8 hours. Insert a lunch break and at least two short breaks, one in the morning and another in the afternoon.
13. Secure regular weekend holidays and adjust the work schedule for this purpose.
14. National holidays and seasonal holidays, as appropriate, should also be applicable for faecal sludge emptiers.
15. Avoid working in the dark as much as possible. Adjust the working hours according to season changes to avoid working in the dark.

1ST DAY OF TRAINING

Ways to promote cooperation

Toilets and washing facilities are basic needs for faecal sludge emptier. The availability of these facilities affects the safety and efficiency of the collection work. Communities and City Corporation should provide toilets and washing facilities, lunch corner etc. As well as public facilities, collectors may need to use toilets or washing facilities in the community or in private houses for their immediate needs.

The community can assist faecal sludge emptiers in establishing their resting corners. Someone's used chairs and tables can be reused in the resting corner. There should be some occasions when a faecal sludge emptier team and the community can enjoy sports and games together. Certainly, these activities increase communication and cooperation to create better collection and management systems.

Representatives of the community and the city corporation can actively contribute to the faecal sludge emptiers discussion for improvement. Schedule a joint meeting at a convenient time for everyone. Learning from good examples, the discussions can be more productive for joint actions.

Points to remember

- Toilet and washing facilities are the basic needs of faecal sludge emptier and should be available for them.
- Pleasant resting corners increase communication and cooperation among faecal sludge emptiers.
- Gathering everybody's ideas can create safe and efficient faecal sludge collection systems.
- Sound work time arrangements are the basis for safe and efficient collection systems.



Check point # 9

Provision of First-Aid Kits, medical assistance for injury and accidents (in case of emergency) and routine health check up for the workers

Benefits for faecal sludge emptier and communities

Appropriate first aid could save the life of faecal sludge emptier in case of an accident and emergency.

There are many risks of injury in faecal sludge emptying. They are, for example, cutting injuries from sharp materials, injuries from slips and falls, skin problems.

First aid is important to provide an immediate remedy. All the faecal sludge emptier should know where the first aid kit is and how to use it.

Representatives of faecal sludge emptier should have basic first aid training. Managers and the City Corporation/ Pourashavas should help provide such training programme.

Faecal sludge emptiers need to immediately report accidents and injuries to relevant authorities immediately. Examples could be sudden back injuries because of lifting heavy waste, cuts from sharp objects or skin problems caused by hazardous substances.

The managers/work supervisors should keep records and review them to prevent future accidents and diseases. The emptiers should also report incidents and potential hazards to the team and the manager to discuss improvements.

Accidents and injuries to faecal sludge emptiers also affect their community. Many in the community would feel embarrassed if faecal sludge emptiers were accidentally injured.

How to improve

1. Keep the first aid kit in an easy-to-see place in the Vacutug. Let all faecal sludge emptiers and truck drivers know where it is.
2. Select the drugs and equipment for the first aid kit that are necessary for emergency injury treatment. They are: sanitary cotton, gauzes, alcohol and other antiseptics, bandages, scissors, etc.
3. Prepare an emergency plan for the faecal sludge emptying team in cooperation with other teams. Identify a clinic or hospital near the workplace and secure transport measures in case of an emergency.
4. The faecal sludge emptier team can add drugs to relieve common symptoms to the first aid kit, for example, drugs for a common cold, fever or diarrhea. These common drugs should be in a separate compartment from the emergency treatment set.
5. Faecal sludge emptiers should inform the manager/work supervisor of unsafe events and unsafe collection areas.
6. The manager/work supervisor and faecal sludge emptier should jointly review the accident and injury records. Develop an improvement proposal and send it to the city authority.
7. Faecal sludge emptiers may directly inform the community of certain accidents and unsafe events and seek their cooperation for improvements in a constructive manner.
8. Injured faecal sludge emptiers and truck drivers should have access to adequate medical treatment for a quick recovery.

1ST DAY OF TRAINING

Ways to promote cooperation

The city corporation / paurashava(s) or the community can help faecal sludge emptier teams with basic first aid training and also developing an emergency plan in consultation with clinics and hospitals.

The community can also cooperate, for example, by transferring patients to the hospital in an emergency.

The faecal sludge emptier teams, the community and the city corporation should work together to prevent accidents and unsafe events.

They can take immediate action to fix minor problems. If the problem is bigger and needs the cooperation of many people, they can fix the problem step-by-step. Their constant communications with the community are important to keep the emptying work running safely and efficiently.

Points to remember

- Prepare an emergency action plan. Having first aid kits is an important starting point.
- Reporting accidents and injuries is important for prevention as well as for treatment.



Technical Action Area # 5 Work Organisation

(Checkpoint 10)

Faecal sludge emptiers require adequate basic facilities such as safe drinking water, bathing facilities, toilets, comfortable eating places, or recreation facilities.

Appropriate work time arrangements, training and team work development to promote good work.

Check point # 10: Establishment of OSH committee and health and safety training for faecal sludge emptier

Check point #10

Establishment of OSH committee and health and safety training for faecal sludge emptier

Benefits for faecal sludge emptier and communities

Establishment of health and safety committee fulfills the legal requirement, enable the Management and faecal sludge emptiers to engage in joint planning and actions on OSH issues to avoid possible accidents and keep the work safer and healthy through participatory processes.

An OSH committee with the active participation of work managers and workers can contribute to making the workplace safe and healthy

OSH committee can support faecal sludge emptiers when they are injured. For example, if someone is injured or sick due to unsafe work practices, they can get support from the committee

Faecal sludge emptiers and drivers need practical training to make their work safe and efficient. Trained workers know how to avoid danger in Septic Tank emptying and contribute to efficient waste management in the community as a professional.

Faecal sludge emptiers should be trained in several ways. There they can learn about possible safety and health risks associated with their collection work and also about how to use personal protective equipment. Drivers need to learn emptying in a safer way.



How to improve

1. Organise regular meeting in the community.
2. Establish the OSH committee as per local labour law.
3. Implementation of action plan in faecal sludge empty operation and follow up the actions.

1ST DAY OF TRAINING

4. Faecal sludge emptiers and drivers should train newcomers. Use this POST training manual to provide practical information on the safe handling of faecal sludge, the safety of collection trucks, the work environment and personal protective equipment, and welfare facilities and work organizations.
5. Take new emptiers to actual collection areas and let them see how experienced emptiers and driver perform their work safely.
6. Faecal sludge emptiers and drivers should also meet community representatives and listen to their opinions on how to improve collection work. Training is an opportunity to build a collaborative tie with the community for better emptying.

Ways to promote cooperation

The City Corporation/ Pourashava should take lead role towards establishment of the functional OSH committee at community level.

Training should avoid the one-way teaching and promote interactive discussion between trainees and trainers to make joint improvements.

The training should apply group work methods to encourage trainees to find out safety and health risks and propose improvements.



⚡ Technical Action Area # 6 Faecal Sludge (FS) Spillage Protocol

Faecal Sludge (FS) Spillage Protocol	
<p>Faecal sludge (FS) is the 'material' removed from septic tanks, pits and holding tanks / containments. It contains a variety of microorganisms, some of whom may be pathogenic (disease causing). When handling FS for transport, it is important to remember that this material can potentially harm people, animals and the environment if not handled properly.</p>	
<p>Reporting: In the event of an accidental spillage of FS, the emptiers and municipality/ city corporation/ private organisation-led vacutug team should:</p> <ol style="list-style-type: none"> 1. immediate take action to contain the spillage, reduce the possibility of health hazard and minimize the environmental impact and start cleaning up; 2. In case, the volume of spillage is more than 100 litres, notify the concerned authority (city corporation / municipality) with the necessary information e.g. date, time, location and volume of spillage, actions taken to contain the spillage, to disinfect the areas and required future actions (in necessary). 	
<p>What needs to be done when there is a FS-spill while removing the tank/pit-lid and collecting sludge from the client's pit / septic tank</p>	<ol style="list-style-type: none"> 1. Remove the sludge with the use of a tool (i.e. shovel). Afterwards, wash the tool and then pour bleaching powder on. 2. Pour bleaching powder on the area to disinfect the residue. If the surface is concrete made, wash the area with water and then bleach. If the water stranded or absorbed by the soil, dig earth and cover the wet area not to get children come in contact; Warn the households and their children not to walk barefooted at least for few days. 3. Each quantity of FS should be dealt with carefully and should follow the steps of removing, washing, bleaching and covering with earth as appropriate. 4. For larger spills, the first step should be to prevent FS running off into nearby streams or contaminate water supplies. This is done by using the tool (shovel) to dig containment ditches, or pile dirt around the spill to keep it from running off. Then disinfect with the bleaching powder and clean up.
<p>What if there is FS-spill while driving the vacutug on the street or if there is an accident</p>	<ol style="list-style-type: none"> 1. If the quantity of spillage is less than 100 litre, remove the sludge from the street and cover the sludge at the road side. Wash the sludge away in the nearby ditch / drains. Pour bleaching powder to disinfect the residue on the street. Though releasing sludge in the environment is not appreciated, sludge left on the street can be a serious health hazard to people on the street; 2. If the quantity of sludge is more than 500 litres, immediately contact the conservancy department to report. In this case, a massive operation needs to be taken where other vacutugs / water-trucks may join to wash away sludge and then pour bleaching powder on the street.
<p>What about spillage while discharging FS</p>	<ol style="list-style-type: none"> 1. Cover the area with earth. Bleaching may not be necessary as these places are generally off limit to people. However, if spillage takes place on a concrete floor, then washing and bleaching would be necessary.
<p>If there is a spill / spray on human body</p>	<ol style="list-style-type: none"> 1. If there is spill or sudden spray due to malfunction / poor workmanship of emptiers, the person affected should immediate take a proper shower / bath. If it affects an emptier, he should immediately be released from the duty to do the same. 2. Emptiers will always alert households, children and by-standers to stay away and aware them of the adverse affects contracting FS.

1ST DAY OF TRAINING

Session: 8

Closing of first day training

- **Technical Action Area # 1:** Safe Faecal Sludge Handling and Community Cooperation
- **Technical Action Area # 2:** Safety of Faecal Sludge Collection Truck
- **Technical Action Area # 3:** Work Environment and Personal Protective Equipment

Objective	To review the day's work and try to understand if the participants are able to conceive the first day's contents.
Duration	15 Minutes
Method	Facilitators will share the 2 nd day's programme schedule. Oral discussions will be conducted for this session using power point presentation
Tools	Brief speech, power-point slide, projector, white board and Marker pen etc.
Outputs	At the end of this session, the participants will share their views and contribute to better and safer practices in FSM.

Notes for the programme facilitator:

The facilitator will make 30 min. presentation on different technical areas through a projector by power point slides or by using flip charts/poster papers. After the presentation facilitate open discussion, asked participants to any questions they have in mind on discussed matter and answering questions on easy language.



Session: 9

Review of 1st day's contents and discussion

- **Technical Action Area # 1:** Safe Faecal Sludge Handling and Community Cooperation
- **Technical Action Area # 2:** Safety of Faecal Sludge Collection Truck
- **Technical Action Area # 3:** Work Environment and Personal Protective Equipment

Objective	Recap of the previous day's contents and provide a brief outline of 2nd day's activities.
Duration	15 Minutes
Method	Presentation
Tools	Not Applicable
Outputs	The participants will be reminded of lessons learned from 1st day training activities.

Notes for the programme facilitator:

The programme facilitator will welcome all the participants in the 2nd day's programme.

The facilitator will ask the pre-selected participant to make a brief summary presentation on the first day training activity followed by discussion as part of re-capitulation.

2ND DAY OF TRAINING

Session: 10

First Aid: Conceptual discussion & exercise

Objective	To inform the importance of first aid and give a demonstration of how to use it in emergency.
Duration	45 Minutes
Method	Presentation, role play/ Practical Demonstration
Tools	First aid kits
Outputs	At the end of this session participants will be introduced to first aid kits and its uses in need.

Notes for the programme facilitator:

At the beginning of the session the facilitator will check the participant's knowledge about First Aid. Then the facilitator will discuss about First Aid in details.

Exercise: Different steps and techniques of providing first aid followed by role play / demonstration of first aid kits.



First Aid: Conceptual discussion & exercise

First Aid, immediate and temporary treatment of a victim of sudden illness or injury while awaiting the arrival of medical aid. Proper early measures may be instrumental in saving life and ensuring a better and more rapid recovery.

The avoidance of unnecessary movement and over-excitation of the victim often prevents further injury. Conditions that require immediate attention to avert death include cessation of breathing (asphyxia), severe bleeding, poisoning, strokes, and heart attack.

The essentials of first aid treatment also include the correct bandaging of a wound; the application of splints for fractures and dislocations; the effective methods of cardio pulmonary resuscitation (CPR) and artificial respiration; and treatment of shock, fainting, bites and stings, burns, and heat exhaustion.

Asphyxia and Obstruction of Air Passages

Symptoms: Blue discoloration of face, tongue, and lips; gasping; inability to speak; unconsciousness.

Treatment: First try the Heimlich maneuver, grasping the victim from behind with hands linked in front and compressing the abdomen just below the ribs. Encourage victim to cough up foreign objects in throat; as a last resort, rap victim between shoulder blades to dislodge object. For asphyxia caused by gas or fumes, remove victim to a clear atmosphere; use artificial respiration.

Bites and Stings

Symptoms: Wound (animal or human bite) or swelling and pain (insect sting).

Treatment: For animal and human bites, cleanse wound with soap and water and apply iodine containing antiseptic; submit animal for rabies test. For poisonous snakebite, cooling the site of the wound with ice will slow down absorption of poisons; antivenin treatment is required only for a small number of reptile bites. Prevent exertion and taking of stimulants by victim. For insect stings apply cortisone ointments, soothing lotions, or cool compress. Persons who are allergic to insect stings should carry adrenaline with them at all times. Papain, the main ingredient in “meat tenderizer,” is effective in coral sting injuries.



Burns

Symptoms: Redness (first-degree burns), blistering (second-degree burns), charring of skin (third-degree burns).

Treatment: Cold water may be applied to first- and second-degree burns. All burns should be covered with sterile non-adherent dressings. Chemical burns should be washed with large quantity of water; vinegar may be added to the water for alkali burns, and sodium bicarbonate may be added to the water in case of acid burns.

Fainting

Symptoms: Unconsciousness, paleness, rapid pulse, coldness of the skin, sweating.

Treatment: Leave victim lying down, loosen clothing, roll victim to the side and wipe out mouth in the event of vomiting.

2ND DAY OF TRAINING

Foreign Body in the Eye

Symptoms: Pain, redness, burning, tears.

Treatment: Pull down lower lid and remove un-embedded object with clean tissue if it lies on the inner surface of lower lid. If object has not been located, pull upper lid forward and down over lower lid. Object can be removed from surface of upper eyelid by turning lid back over a swab stick or similar object and lifting off the foreign body with a clean tissue.



Finally, flush the eye with water. If object is suspected to be embedded, apply a dry, protective dressing over eye, and call physician or take patient to hospital emergency room. Keep victim from rubbing the eye. For chemical burns, flood eyes with water.

Fractures and Joint Injuries

Symptoms: Pain or tenderness, deformity of bones, swelling, discoloration.

Treatment: Prevent movement of injured parts until splint is applied; treat for shock; if ambulance service is not available, splint entire limb before moving. For sprains, elevate affected part and apply cold compresses. Elastic bandages may be used for immobilization.



Heat Exhaustion

Symptoms: Pale, clammy skin, profuse perspiration, weakness, headache, possibly cramps.

Treatment: Rest, cool atmosphere, cool water by mouth if conscious. In case of heat cramp, exert firm pressure on cramped muscle (usually abdomen or legs) to help relieve spasms.

Heatstroke

Symptoms: High temperature (as high as 108–112°F/42–44°C), hot dry skin, rapid pulse, possibly unconsciousness.

Treatment: Immediately undress victim and sponge with or immerse in cool water or wrap in water-soaked sheets. Use fan or air conditioner.

Poisoning

Symptoms and signs: Information from victim or observer, stains about mouth, presence of poison container, breath odor, pupils contracted to pinpoint size from morphine or narcotics.

Treatment: Dilute ingested poison by administering water or milk, administer specific antidote if described on label of commercial product. Do not induce vomiting if poison is strong acid, strong alkali, or petroleum product, or if victim is unconscious or convulsive. Syrup of Ipecac available without prescription at pharmacies may be administered to induce vomiting in other cases. A universal antidote contains Ipecac and activated charcoal; the latter absorbs the poison and the former causes it to be expelled.





Severe Bleeding

Symptoms: External wound.

Treatment: Apply pressure over wound with wad of sterile gauze or other clean material. If bleeding continues and no fracture is present, elevate wound. If bleeding still continues, apply pressure to blood vessels leading to area in arm, press just below armpit; in leg, press against groin where thigh and trunk join. Use a tourniquet (tight band that cuts off circulation) only when it has been decided that the sacrifice of a limb is necessary to save life.



Shock

Symptoms: Pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration), cool skin, weakness, weak pulse; unresponsiveness and dilated pupils in later stages.

Treatment: Keep victim lying down and covered enough to prevent loss of body heat. The body position should be adjusted according to the victim's injuries. Victims in shock may improve if the feet are raised 8 to 12 in. (20–30 cm). For electric shock, cut off current or separate victim from contact with electricity by using dry wood, rope, cloth, or rubber; administer CPR.

Wound

Treatment: Stop bleeding, cleanse wound with soap and water and cover with sterile or clean bandage.

First Aid Kit Checklist (proposed)

1. Tools

- Small Scissors
- Tweezers
- Needle
- Suture thread
- Sterile disposable gloves
- Surgical mask
- Stethoscope
- Emergency eye wash kit



2. Bandages and Cloths

- Adhesive Bandages various sizes and shapes
- Surgical Gauze
- Surgical Tape
- Skin Tape/Butterfly closure strips
- Eye Pads
- Cotton Pads and cotton balls
- Large cloth bandages
- Ace bandages



2ND DAY OF TRAINING

3. Wound Cleaning and Care

- Antibiotic Ointment or cream
- Iodine
- Sterile alcohol wipes
- Antiseptic towelettes
- Spray or cream; for mild burns
- Calamine Lotion or powder
- Anti-fungal cream
- Petroleum jelly
- Saline solution



4. Medicine

- Tylenol or Aspirin
- Children's pain reliever/fever reducer
- Medicine for upset stomach
- Anti-Diarrhoea Medicine
- Anti-histamines or anti-allergen pills



5. Important Tips

- Sterilize all tools (scissors, tweezers) first. Use alcohol swabs or heat with a lighter or matches.
- All bandages should be sterile Individual bandages should be sealed in individual packages.
- Ensure guides have instructions on how to perform life-saving techniques on children and infants as well.
- Be aware of any drug allergies. Have them listed in case further medical attention is necessary.
- Toss the emetics medicines used to induce vomiting, like syrup of ipecac, are no longer recommended for use.



Session: 11

Safety and Health Committee: Formation and Responsibility

Objective	To give an idea to the participants about the importance of formation of OSH Committee and its responsibilities to ensure workers' rights and well being from the occupational health and safety perspective.
Duration	30 Minutes
Method	Presentation
Tools	Poster papers / flip chart
Outputs	The participants will be well informed about the roles and responsibilities of OSH Committee where they can seek cooperation and assistance in need.

Notes for the programme facilitator:

The facilitator will discuss some points on formation of OSH management and its importance through power point presentation. Provide some good example regarding OSH management so that participants feel encourage.

2ND DAY OF TRAINING

Safety and Health Committee: Formation and Responsibility

A safety and health committee is a forum for bringing the internal responsibility system into practice.

The maximum five members committee may consist of fecal sludge emptiers, municipality and local community representatives who meet on a regular basis to deal with safety and health issues.

The advantage of forming the committee is that the in-depth practical knowledge of specific tasks is brought together under the wider municipal policies, and procedures (management).

Another significant benefit is the enhancement of cooperation among all parts of the work force towards solving safety and health problems. Consult health and safety legislation applicable in the concerned workplace for details.

Responsibilities of Safety and Health Committee

- Recognize workplace hazards;
- Evaluate the risk of accidents/incidents, injuries and illness;
- Participate in development and implementation of programs to protect the employees' safety and health;
- Respond to employee complaints and suggestions concerning safety and health;
- Ensure the maintenance and monitoring of injury and work hazard records;
- Monitor and follow-up hazard reports and recommend action;
- Set up and promote programs to improve employee training and education;
- Participate in all safety and health inquiries and investigations;
- Consult with professional and technical experts;
- Participate in resolving workplace refusals and work stoppages;
- Make recommendations to management for accident prevention and safety program activities;
- Monitor effectiveness of safety programs and procedures.

Legal Provision

Formation of Safety Committee:

According to the Bangladesh Labour Act 2006 (Amendment 2013), Section 90a 'Where in any factory, 50 or more workers are employed, there shall be a safety committee formed and functioned in the manner prescribed by the Rule'.



Session: 12

Feedback & Post-test Assessment

Objective	To gather feedback from the participants and conduct an evaluation of this training programme.
Duration	15 Minutes
Method	MCQ test
Tools	MCQ questionnaires, discussion
Outputs	The trainer will be able to identify the strengths and weaknesses (shortcomings) of the training programme and can update and improve the programme by incorporating the feedback and suggestions from the participants for future use.

Notes for the programme facilitator:

A set of MCQ questionnaires will be given to each of the participants to evaluate the impact of the training. Verbal comments will be taken as training feedback.

The facilitator will read out the questions and answer and help them to give the tick mark, in case the participants who cannot read and write in that case.

After the test, the facilitator will compare the recorded marks with pre-test assessment.

Feedback & Post-test Assessment

Please give tick mark (✓) of the following questions.

1. **Safety at work for faecal sludge emptier is not essential**
 Agreed Disagreed
2. **Who is responsible for ensuring occupational safety & health at work?**
 faecal sludge emptiers The Paurashava / city authority
 Service recipients All parties involved
3. **Park the truck on the access road and close to the pit / septic tank. This is.....**
 Correct procedure Wrong procedure
4. **If there is a faecal sludge spillage while driving the vacutag on the street or if there is an accident.....**
 If the quantity of spillage is even very less, do not remove the sludge and leave that place before anybody notice it
 If the quantity of spillage is even very less, remove the sludge from the street, cover the sludge at road side and wash the sludge away in the nearby ditch/drain.
5. **If there is spillage or sudden spray of faecal sludge on the body of emptiers.....**
 Emptier will always alert households, children and by-standers to stay away from him/her and adverse effects contracting of fiscal sludge
 Emptier should immediately be released from duty and given opportunity to take proper wash/bath.
 All of these
6. **Use of personal protective equipment at faecal sludge empty work is not very much important?**
 Agree Disagree
7. **Washing facilities is important for faecal sludge emptier**
 True False
8. **What is First Aid?**
 Immediate and temporary treatment Cure diseases
 Visiting doctor Above all
9. **Regular period health check-up for the faecal sludge emptier is not an essential item**
 Agree Disagree
10. **Establishment of health and safety committee, organise safety training and welfare activity for the sludge emptier is not essential or a legal requirement**
 Agreed Disagree No idea



Session: 13

Closing & Certificate Distribution

Objective	To deliver a closing speech and distribute the certificates among the participants.
Duration	15 Minutes
Method	Oral
Tools	Speech, Certificates
Outputs	By completing this training programme a group of trained faecal sludge emptiers will be able to carry out their works in a better and safer way and become well informed of their rights, social benefits etc. to ensure the occupational health and safety.

Notes for the programme facilitator:

Guest speakers as well as reputed personnel on relevant field from local authorities/ municipalities/ concerned government ministries will thank the participants. And will give short speech on importance of this training course and its need to apply the knowledge at workplaces and the practical value of the course.

Guest speakers will distribute the certificates among the participants and declare closure of the training.

Participation-Oriented Safety Training
for the Faecal Sludge Emptiers
Action Manual on Occupational Safety and Health

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