SSHE Handbook for Teachers
Preface

Handbooks for SSHE is intended for all those development professionals and practitioners who have the responsibility of designing or/and implementing programmes to improve the learning environment of schools. For children to realize their right to elementary education it is imperative that schools provide not just learning opportunities but a health promoting setting. This can be done only if schools have safe and clean drinking water facilities all year round, clean well-maintained separate toilets and urinals for girls and boys, facilities for washing hands with soap and sufficient daily life information and knowledge on key hygiene practices that prevents easily communicable diseases like diarrhoea, dysentery, colds and coughs.

This easy to read handbook will guide teachers, teacher educators as well as development planners and managers of water and sanitation programmes in schools and communities. Absence of safe water, adequate functional toilets along with unnoticed and unattended problem of worm infestation in children compromises their learning ability. Proper hygiene is an important intervention to ensure regular attendance of girls, prevent drop out and positively influence their learning capabilities. The book will help teachers to understand and appreciate technologies suitable for rural areas like leach-pit toilets and designs which are child friendly and meet the needs of girls and boys.

UNICEF globally with national governments promotes SSHE or WASH in schools as an entry point to bringing lasting change in values and behaviours of young children in the areas of water, sanitation, hygiene and preventive health. Investments in projects that enables children, parents and teachers to work together to develop and maintain a clean, safe and healthy environment for children to grow and learn in, is unquestioningly worthy in terms of human development.

This hand-book is the result of collaboration between the Water and Environmental Sanitation Section of UNICEF, India Country Office and the International Water and Sanitation Centre, (IRC) Delft, Netherlands. Contributions of Kathleen Shordt and Marielle Snel are deeply appreciated for the basic text. Amudha Periasamy, PO, SSHE, UNICEF has adapted the global context to the Indian reality and has enriched the book with photographs and best practices identified from different states. These show the richness and diversity of experience in India. The hand-book has also been reviewed by Kumar Alok and Sumita Ganguly. We hope that all those who wish to see children grow up as healthy and happy individuals will find this book useful and adapt it to their situation with a local language translation.

UNICEF
India Country Office
India

International Water and Sanitation Centre, (IRC)
Delft, Netherlands.
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School Sanitation and Hygiene Education (SSHE) works to improve the health, the hygiene behaviours and understanding of children. It also aims to support hygiene practices in the home and community. It sometimes is known by other names such as SWASTHH or SHSP. A successful School Sanitation and Hygiene Education Programme has these elements:

- Facilities that are used and maintained for:
  - Drinking safe water
  - Safe excreta disposal. Boys and girls use the toilets and urinals
  - Washing hands with soap or ash before eating and after using the toilet
  - Boys and girls (of all castes and classes) share work equally for cleaning school, collecting water, cleaning water points and toilets

- Learning about hygiene in the classroom. Hygiene education, with participatory activities focuses on life skills

- Sharing information. Teachers, children and school management groups have activities for parents and the community
School sanitation and hygiene programmes can bring these benefits:

- Reduce diarrhoea, intestinal worms, eye infections and, possibly, reduce malaria and colds/flu
- Improve the attendance of girls in school because girls can have privacy when they use the toilets/urinals
- Form healthy habits that continue in the future generation of adults
- Help to improve sanitation and hygiene in the home and community

Promote safe behaviours

About half of the 6,00,000 primary schools in India have safe drinking water. Only one in 10 have sanitary toilets. We need to work together to improve this situation. However, SSHE must go beyond constructing toilets or water points. If all children regularly use the toilets and water points, and learn about hygiene in the class, then SSHE comes closer to its main purpose – improving health and behaviours. This means that SSHE includes construction and also training, education of children, continuing use of facilities, good maintenance, reaching out to parents and community members.

SSHE is more than construction. It needs to build safe hygiene practices and have clean, well-used toilets and water points, with children and teachers working together.

Who is usually involved in SSHE in the community?

The SSHE programme needs to involve most or all of these groups in order to succeed:

- Teachers
- Community groups such as: Village Education Committees, School Management Committees, or Parent-Teacher Associations
- Non-governmental organisations and community-based organisations
- Panchayati Raj Institutions
- Special groups of children such as school health clubs, hygiene scouts, children parliaments and, all children in the school and their parents

Training is needed for SSHE

We usually think of training as a formal activity in a classroom. But, there are other types of training that can be equally or more useful. These include: Orientations, workshops in schools, study trips to other schools, cluster school meetings, planning workshops that include some training and pilot projects. To be successful and build ownership, these people should be given some kind of training:

- Teachers. Training should be repeated at least once every year
- Parent groups such as SMC, SHG or PTA should be oriented and discuss the programme
- Panchayat, block and district officials should be oriented and prepare agreed work plans
- The trainings should be conducted in content and in participatory methods

Definitions

The word **behaviour** means the way people act, what they do.

The word **hygiene** means healthful, relating to health. It is the practice of keeping oneself and one’s surroundings clean, especially in order to prevent illness or the spread of disease.

**Prevention** refers to the actions people take that stop themselves and others being infected with the disease or illness. SSHE works to prevent diseases related to water and sanitation in particular.
How diseases spread

Water and sanitation-related diseases include various types of diarrhoea, worm infestation, skin and eye diseases and diseases carried by mosquitoes. Together, they are the most frequent cause of illness in the developing world.

Diarrhoeal diseases
Diarrhoea (and diseases like dysentery, cholera and typhoid) is caused by agents such as bacteria and parasites. In our nation, the death rate of children from one to five years of age decreased by half from 1971 to 1994. However, 4,00,000 children under five years of age die each year due to diarrhoea. This means that every hour 45 children under the age of five die due to diarrhoea. In general, these diseases, and others related to water and sanitation, cost the Indian economy 73 million working days a year.

The agents — bacteria, viruses and parasites — that cause these diseases, cannot be seen. These agents get into humans through the mouth or skin and are passed out in excreta. They can be passed from one person to another because of unclean hygiene practices.

All people pass germs out in their excreta. Not all of it is dangerous. But, if it is dangerous, then a low dose (only about 100 viruses or 10,000 bacteria) can make another person sick if it is passed to them through food, fingers, water or through flies.

One gram of excreta can contain:

- 1,00,00,000 viruses
- 10,00,000 bacteria
- 1,000 parasite cysts
- 100 parasite eggs

It is amazing but true that little bits of human excreta can enter other people’s bodies. This can happen in many ways. For example, if people defecate in a stream and then others use the stream water for drinking.
This diagram shows many of the ways in which excreta can be transmitted from one person to another.

**F-Chart**
Three common types of parasites are roundworm, hookworm and whipworm. Education about worms may help prevent sickness which keeps children away from school.

**Estimate of sickness due to intestinal worms in India (data from 1990)**

<table>
<thead>
<tr>
<th>Worm</th>
<th>Number of people infected (crores)</th>
<th>Number who are sick because of infection (crores)</th>
<th>% of the Indian population infected</th>
<th>% of the population who have visible sickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundworm (Ascaris)</td>
<td>20</td>
<td>1.3</td>
<td>23%</td>
<td>4%</td>
</tr>
<tr>
<td>Whipworm (Trichuris)</td>
<td>14</td>
<td>1.5</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>Hookworm</td>
<td>32</td>
<td>5.5</td>
<td>38%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Adapted from M.S. Chan et al. (1994)

This Table shows the percentage of people who may be infected and the percentage of people who have a visible sickness. Infection means that the people, mainly children, have worms or worm eggs in their bodies. At first they do not seem ill as the infection is small. When the infection grows, they show signs of illness. This could include diarrhoea, being hungry, or appetite loss, weight loss and itches, bloated bellies. Infection through worms can be prevented through better sanitation, hygiene and water.

**Why is it important to stop worm infestation?**

Children who have worms tend to be more frequently absent from school. Studies show that when children get rid of their worms, they tend to achieve better in school. Their performance improves.

It is not only important to get rid of worms (which requires medicine) but, also to prevent them from resurfacing (which requires hygiene). Treatment with medicine must be followed by education and new behaviours. This graph is an example of what happens if a deworming programme in school is not followed up. In “month 1” all the children in a school took medicine to get rid of roundworms (Ascaris). There was no monitoring or education after this. Then, most of the children got reinfected within nine months. Treatment with medicine then needs repeated promotion with follow-up.
Other health problems related to hygiene

Many skin and eye diseases are also related to hygiene. For example, conjunctivitis causes redness, itchiness, swelling of the eyelids. Many children get this painful but not serious sickness. More serious is trachoma that causes blindness. These diseases spread from crowded places, lack of good face washing, handwashing and hygiene.
Hygiene practices and behaviours are the things that people do which reduce the chances of illness. Good hygiene practices reduce diarrhoea, worms, skin and eye diseases. Improvement in sanitation leads to less cases of diarrhoea and results in taller and heavier children.

**Key hygiene behaviour**

- Disposal of excreta safely
- Household and personal hygiene, especially handwashing
- Quantity of water. Use enough water, without wasting it
- Quality of water. Use good quality of water
- Safe food hygiene. Washing, cooking and storage

*Improved hygiene, especially handwashing*

Keeping the body and the home clean is the best way to prevent diseases. Household cleanliness includes using water from safe sources, keeping cooking area and utensils clean, safe storage and cooking food, using and cleaning latrines.

One important way to stop the spread of disease is for the children to be taught to wash their hands with soap (or ash) after using the latrine and before eating food. This removes germs. Handwashing with soap and water can reduce diarrhoeal diseases by one-third (about 35%) or more. Handwashing can also help to reduce eye infections such as conjunctivitis and trachoma. When latrines are used by adults, children and for disposing off young children’s stools, this can also reduce diarrhoea by one third (about 36%) or more.
Hygiene also means using enough water. Simply washing hands, face and bodies can prevent many diseases. Keeping water safe and clean, that is drinking good quality water, can reduce diarrhoea by up to 20%. However, increasing the quantity of water used can bring about still greater reductions. Water can wash away the germs and things that make us sick including many skin diseases and eye infections (like trachoma that causes blindness) as well as nits and lice in body and clothing. To improve hygiene, the amount of water needed generally per day per person is 20 litres.

<table>
<thead>
<tr>
<th>Part of the body</th>
<th>What to do</th>
<th>Likely problems if not done</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hands</strong></td>
<td>Washing both hands, rubbing with plenty of water and soap or ash after using toilet and before/after eating</td>
<td>Dysentery, diarrhoea, some worms, cholera, some respiratory infections (cold)</td>
</tr>
<tr>
<td><strong>Head</strong></td>
<td>- Washing face with plenty of water and soap &lt;br&gt;- Cleaning teeth after meals &lt;br&gt;- Bathing</td>
<td>Eye disease (trachoma, conjunctivitis), tooth decay, lice</td>
</tr>
<tr>
<td><strong>Body</strong></td>
<td>- Bathing regularly &lt;br&gt;- Washing clothes</td>
<td>Lice, scabies, ringworm</td>
</tr>
<tr>
<td><strong>Feet</strong></td>
<td>- Wear chappals or shoes</td>
<td>Some worms</td>
</tr>
<tr>
<td><strong>Mouth</strong></td>
<td>- Drink safe water. Safe water storage and &lt;br&gt;- Safe food hygiene. Washing hands, clean utensils, safe storage.</td>
<td>Dysentery, diarrhoea, some transport worms, cholera</td>
</tr>
</tbody>
</table>
We have seen that handwashing is one of the most important ways to prevent the spread of infection. What happens if you do not wash both hands often? You pick up germs from different places and then you infect children/yourself when you touch your eyes/nose/mouth. Washing hands the correct way at the right times can reduce diarrhoea by more than one-third.

How to wash hands correctly
Not all children know how to wash hands correctly. Demonstrations and monitoring in school are useful to help children learn and practice. Four simple rules are:

- Pour a bit of water on both hands
- Put soap on hands
- Rub both hands well and all over
- Rinse well. Rinse off all the soap. This will need more than ½ cup (½ litre) of water

When to wash hands in school
- After using the toilet
- Before (and after) eating
- After eating if hands are sticky

The school must be well organised so that children wash hands before eating and after using the toilet. This means that children need to be well organised with clear roles and rules. Usually, they need to make lines and be monitored, for example, by an older child, when washing hands before eating. The handwashing place also needs to be kept clean with good drainage system so that mud does not collect.
Handwashing facilities

Handwashing facilities do not have to be expensive. A place to wash hands should be near the latrine for easy access. The handwashing facility can have various designs such as:

- A drum, a plastic or brick tank fitted with a tap
- A rainwater catchment container that can also be filled using a bucket
- A large container with a dipping cup
- Some schools use the handpump platform for handwashing. It must be strong and have a good-cemented platform and must be kept clean

For handwashing facilities, consider the following:

Containers that hold water for handwashing should be easy for children to fill and to clean. The handwashing area should be clean and free from mud or stagnant water that attracts insects. Good drainage is needed for handwashing water. In some schools, the teachers and school committees have made their own designs for draining wastewater to plants. If people cannot afford to buy soap, then ash or clean soil will work. However, using ash or clean soil may not be practical in a school.

Money is needed for soap as well as for repairs. The school committee or PTA usually helps with this. However, this means that meetings are needed for parents as well as panchayat and school leaders so that they understand the importance of handwashing and school hygiene from the beginning of the programme.

How soap works

Soap molecules are long chains of carbon and hydrogen atoms with one atom of oxygen. Soap reduces the surface tension of water so that water can spread and wet surfaces. Soap is said to make water “wetter.” One end of the soap molecule likes to be in water. It is called “water-loving” (hydrophilic). The other end tries to stay away from water. It is called “water-hating” (hydrophobic) but attaches easily to grease and dirt. In washing, the “greasy” end of the soap molecule attaches itself to the grease and dirt on your hands, your body or clothes. Small pieces of grease/dirt are loosened and surrounded by soap molecules. The dirt and grease can then be carried off by a flood of water, that is, rinsed away.

How soap is made

Soap is made from fats and oils, or their fatty acids. The fats are mixed with a strong chemical salt called an alkali. The word “alkali” means a substance that chemically is a base (the opposite of an acid) and that reacts with and neutralises an acid. Do not try to make soap by yourself or with a class of children. Making soap is dangerous. Soap does not work as well when the water is hard. Hardness in water is caused by minerals such as calcium (Ca), magnesium (Mg), iron (Fe) and manganese (Mn). The minerals stick to the soap and make a film or scum. This soap film does not rinse away easily. It tends to remain behind, can make spots and makes clothing feel stiff. More soap is used up to wash in hard water.

Who discovered the importance of washing hands?

Have you heard of Dr. Ignaz Semmelweis? Dr. Ignaz Semmelweis was a doctor in a teaching hospital in Austria (Europe) in the 1840’s, more than 160 years ago. He saw that many women died when they came to his hospital to have babies compared to the women who had their babies at home. In an experiment, he made all the medical students and other doctors wash their hands before touching the women. Because of handwashing, the number of deaths in the maternity ward fell by about 500%. This is how the importance of washing hands was discovered.
It cannot be assumed that children know how to use toilets correctly. The teacher or older children must take the lead in telling children, particularly young children, about how to use a toilet and urinal.

**Guidelines for children**

This is an example of how to use a water-seal toilet correctly

1. It is easiest if you can put your feet on the footrests. (Teacher should check to make sure the footrests are near enough so that little children can do this).

2. Use water correctly. Example (for water-seal toilets) is:
   - Pour about ¼ to ½ cup (one-litre cup) into pan to make sure it is wet before using the toilet
   - Clean yourself by pouring and splashing the water. Usually, this requires ½ to 1 cup of water
   - Pour water into the pan of the latrine to clean away all urine and excreta. Usually this requires about 1 to 2 cups of water
   - Total amount of water needed: About 2 to 3 cups (each cup is about 1 litre). If children urinal, less water is needed
   - Boys don’t “spray” around. Leave the toilet as clean (or cleaner) as you found it

Research shows that dirty latrines (and other school facilities) can cause children to be sick. It is very important to use and maintain latrines and urinals correctly. *Dispose off excreta safely.*

**Notes to Teachers:**

*Toilets must not be locked during school hours! Children must be able to use the toilets.*

**When to let children use the toilets and urinals**

In many schools we see that children run to urinate or use the toilet when the class is let out. They had been waiting, “holding” themselves back. In other countries, children can go to the toilets and urinals during class hours.

If you are planning to have only one toilet in the school, consider the following. In India many children will use urinals; fewer will use toilets. However, if there are 200 children and only one in 20 uses a latrine, then 10 must use the latrine.
Allowing a maximum of three minutes for each child, means that 30 minutes is needed. If children are only allowed to use the toilet during the lunch break, there may not be enough time for all children. In some schools with only a few facilities, each class is assigned a specific time when the children can use urinals and toilets. This is not a very good idea for younger children in particular.

**How many toilets and urinals are needed**

Example: A school with 210 students (half boys and half girls) will need at least one toilet for girls, two toilets for boys and two places in the urinals for girls, three places in the urinals for boys.

If possible, provide a separate latrine for teachers (women and men). Then, the teachers will not be tempted to lock a toilet for their own use.

<table>
<thead>
<tr>
<th>Every school should have toilets and urinals with at least:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● One toilet for every 40 up to about 120 students</td>
</tr>
<tr>
<td>● One urinal for every 20 girls and for 30 boys</td>
</tr>
</tbody>
</table>

Girls using and cleaning their toilet blocks
Toilets Technology

Kinds of toilets

The main kinds of toilets are: Pit toilets, pour-flush pit toilets, septic tanks and toilets connected to sewerage pipes. In rural areas, latrines with one or two pits are common. These pit latrines are less expensive and the technology is simpler than septic tanks. For these reasons, pit latrines are preferred over septic tanks. Direct pit latrines, without a water seal, are useful where water is scarce.

How the pour-flush pit toilet works

This kind of latrine is most common in schools. It has a water seal and two pits with a junction box.

Water seal trap

The water seal is shown in the picture here. These have a water seal to keep out flies and bad smells from the pits. We say the water seal is “broken” when it lets air flow into the pits. This usually happens because of incorrect construction, cleaning or use.

Rural Pan & water seal
**The latrine pit**

Latrine pits have many agents that can cause disease. It is important that these agents stay in or near the pit and do not move to drinking water sources. For this, the pit should be dry. Therefore, the bottom of the pit should be at least one metre above the water table. A kind of jelly covers the pit sides and bottom to stop much movement of the agents that cause diseases. For example, in a pit in fine sand or soil, bacteria will not move more than 900 cm. a day. After several days, they die off. For this reason, the latrine pits in schools should be at least 15 metres away from a well used for drinking. The toilet/urinals should be located on the school premises in such a way that especially the girl students feel safe using the latrines.

**Double pit toilet**

Many toilets have two pits and one pit is used at a time. When that pit fills up, it is closed off and the second pit is used. All the bacteria, viruses and eggs of worms die off so that after two years, the small amount remaining in the pit is clean. This pit can then be easily emptied with a shovel and can be used again.

**Switching pits: The junction box**

The junction box opens to one pit and keeps the second pit closed. It is useful for the school teachers to check during construction how this box is made and to make sure that one pit is closed. See the following drawing. When the first pit gets filled, then the junction needs to be changed so that the second pit is used.

![Junction box for twin pit toilet](image)

**Consider the following:**

- Try to keep the costs of the latrines as low as possible. A septic tank is not usually needed
- Be child-friendly! Child-friendly latrines have smaller pans and smaller footrests for the little children. It should be easy for little children to put their feet on the two footrests
- Store water inside the latrine for personal cleansing
- The double-pit toilet is more expensive than a one-pit toilet; however, it is very easy to empty. Teachers must know how to switch pits
- The floor of the toilet and urinals should be of washable materials for easy cleaning. The floors should slope slightly towards the pits or channels so that water can run off easily
- Walls should be plastered at least up 60 cm with smooth finish so that they can be cleaned
- Boys and girls should have separate urinals
- Repair damaged walls and leaks in roof quickly before these problems get too big to repair
The following table can be useful to help decide on design of pit toilets.

### Environment and latrine technology

<table>
<thead>
<tr>
<th>Your situation or question</th>
<th>What to do. Latrine technology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distance from latrine pit to drinking water source</strong></td>
<td>At least 15 metres</td>
</tr>
<tr>
<td><strong>Children or teachers must spend extra time, for example, more than 15 minutes going one-way to collect water</strong></td>
<td>VIP latrine is preferred as it uses less water</td>
</tr>
<tr>
<td><strong>Loose soil, sides of walls collapse</strong></td>
<td>Line the pits. In sandy soils, sink cement rings with small holes on top of each other without cement</td>
</tr>
<tr>
<td><strong>Hard to dig</strong></td>
<td>Use the pour-flush design rather than VIP as the pits are less deep</td>
</tr>
<tr>
<td><strong>Clay soil</strong></td>
<td>Test by pouring water into a hole and measuring how long it takes to be absorbed. Pits in dense clay may need back filling of about 1.2 metre with more sandy soil</td>
</tr>
<tr>
<td><strong>Coarse sand</strong></td>
<td>Back fill around the rings with denser soil and/or locate the latrine pipes far (for example, forty metres or more) from a well used for drinking</td>
</tr>
<tr>
<td><strong>Hard laterite</strong></td>
<td>If there might be cracks in the laterite, the latrine pits can pollute nearby drinking water sources. Place the latrine far from these sources</td>
</tr>
<tr>
<td><strong>Water rises higher than one metre from the bottom of the latrine pit, but never completely floods the latrine pits</strong></td>
<td>Locate the latrine pit far from any well used for drinking, for example, forty metres or more</td>
</tr>
<tr>
<td><strong>Water rises to or above the ground level and sludge comes out of latrines</strong></td>
<td>Raise the latrines above the ground level so that the top third of the pit is always above the water level. Place latrines far from drinking water source</td>
</tr>
</tbody>
</table>

Source: Adapted from ITN Bangladesh and IRC, 2001.
Example: Tamil Nadu - Gender-friendly urinals in primary schools.
Schools should have enough safe water for drinking and washing hands, washing food containers and so on. There should be sufficient water for personal cleansing and for cleaning the toilets/urinals.

A well with handpump should have a platform or a parapet with good drainage.

It is important to keep the pump or water point in good repair so that it provides water during the whole school year and so that dirty water from the surface does not seep back into the well.

**Rules for drinking safe water if drinking water is stored in a pot**

- Take cover off pot and use dipper to draw the water
- Pour the dipper water into a cup or glass and then hang the dipper back up
- Cover the pot of water
- Drink the water from the cup *without* putting your mouth on the cup. Put the cup back in the right place

If drinking water is stored in containers then, these should be cleaned at least once or twice a week. The children should use a dipper or cup with a big handle so that their fingers do not touch the drinking water.

**How to protect drinking water sources**

For a closed well with a handpump, it is important to have good maintenance. There should be no cracks in the well platform and the handpump should be mounted securely. This stops dirty water from flowing back into the well.

Almost all open wells are polluted. However, many things can be done to reduce the pollution. Never throw things into the well. Cut back overhanging trees. Be careful to use a clean bucket and rope with a place to hang up the bucket and rope. Chlorinating the well on a periodic basis will clean the water.
In some areas, it is very important to test the drinking water, especially for fluoride and arsenic content. Action needs to be taken on the results of the tests.

**Catching rainwater from the roof of the school**

In schools, where there is scarcity of water, a rainwater catchment system can be useful. The rainwater is covered on the roof of the school. The roof has gutters and downpipes (made of wood, bamboo, galvanised iron or PVC) that go to storage containers. These containers range from simple pots to large ferro cement tanks. Water is taken from the storage tank from a tap or pump. A separate pipe or foul flush device is needed to take off the first 20 litres of run-off at the beginning of a rainstorm. This “first” water is the most contaminated with dust, leaves, insects and bird droppings. In case there is no foul flush device, someone has to divert away the first 20 litres every rainstorm.

Just before the start of the rainy season, the whole rainwater catchment has to be checked for holes and breaks and repaired. During the rainy season the system should be checked regularly, cleaned when dirty. Chlorination of the water is necessary. Water can be lost if the taps are left dripping. Padlocks are sometimes needed to ensure careful control over the supply.
All boys and girls and all teachers should use the water and sanitation facilities during school time. All of them should wash hands before and after eating and after using the toilet/urinals.

To help children use the toilets as intended, allow sufficient time. Each toilet should have a bucket, cup and a cleaning brush. Soap should be placed in the handwashing facilities.

If separate water containers are used, then, these should be filled in the morning and refilled in midday as needed. The containers then should be covered and have cups with a ladle. It is useful to have a platform to raise the storage containers off the ground and to have soap for washing the vessels and cups.

Children need to be trained about how to use drinking water facilities and latrines. This needs to be planned and supervised by the teacher. Older children can help monitor and remind the younger children.

**Maintenance**

It is important to keep the toilet, water points and handwashing facilities clean, free from flies and safe for all users. All children (boys and girls from all groups), except the youngest, should be involved. This includes:

- Sweeping the toilet floor everyday and washing it with water (if the floor is cemented)
- Bringing water for tanks or containers in the school
- Cleaning drinking vessels and dippers or dipping cups
- Cleaning the drainage channels and soak pits
- Teachers being able to make small repairs
- Teachers knowing how and whom to contact for larger repairs
- Funds are available and accounted for purchase of small utilities like soap, buckets, brooms and so on

Waste segregation in school
School health clubs

Few children in many schools get together and form groups which are called school health clubs, health scouts, children parliaments and so on. These groups can help other children to organise themselves for good use and maintenance of the facilities and for educational activities reaching into the community.

The school health clubs are usually made up of all students in a certain class, for example, Class V, or a few children each from Class IV to VI. They meet once a week or once every two weeks after school. During these meetings, the children learn about health and hygiene. They can also take responsibility for monitoring children, like, lining up children to wash hands before eating. In some schools, members of the school health club lead small groups of children to do different things such as cleaning the school yard, cleaning toilets, checking the drains, bringing water to the school and so on. The children rotate responsibilities, changing their roles every month or two.

The club also plays a lead role in bringing hygiene messages into the community. Many of them take the lead in health parades and exhibitions. Some have made household surveys about hygiene and houses having latrines. Reports of these surveys are useful and can be supported by the Total Sanitation Programme in a panchayat.

The children in a club should also be able to take initiatives themselves. For example, in one school the children decided that the local marketplace was not clean enough. They went to the market and got the vendors to place waste disposal bins throughout the market. The vendors responded that they would not normally have been so forthcoming, but, since children were asking them to set up the bins, they did so willingly.

Teachers need to do extra work if there are school health clubs. For this, they need to be trained. In some SSHE school cluster training programmes, the teachers make and share their yearly plans for activities they will undertake along with the health clubs. This joint work can help teachers plan in advance and also share good ideas with each other.
The teachers involved in SSHE have many things to do. Therefore, they need support and co-operation. The SSHE teachers and head teachers usually:
- Work with community groups such as the SMC
- Help to plan the location and design of facilities
- Help to get community contribution
- Work with the engineering department or contractor doing the construction
- Organise children for the use and maintenance of school facilities
- Educate students in the classroom
- Educate students outside in school assemblies, visiting the community and so on
- Organise and manage the school health club (scouts, parliament…)
- Monitor the programme in the school
- Attend meetings with other teachers such as cluster and block meetings

A good head teacher:

Attends community functions and is respected. This helps adults accept the messages coming from the children and health club. A good head teacher is clean. He/she will clean latrines and facilities with the teachers sometimes, setting a good example for the children to follow.

- from a teacher in Rajasthan
**Important O&M considerations**

- The area around the sanitary complex should be kept clean.
- Toilet pan should be made wet by pouring a little water before use. The faeces do not stick to the surface and slips so that the pan can be flushed with less quantity of water.
- The pan should be cleaned daily with a brush.
- No rubbish, rag or cotton finds entry into the pan.
- Do not use two leach pits simultaneously; when one leach pit is filled up, it is closed; and the other one is put into service.
- Care should be taken so that no clay or filth enters the urinal.
- Repairs to the sanitary complex should be attended to immediately so that it can be used daily.
- The starting date of the use of a leach pit should be noted so that the period in which it is filled up can be known.
- The public use of the complex should be prevented by locking the complex when the school closes.

**Consider the following:**

Here are seven problems that come up in some schools. It is important to plan how to avoid these at the beginning of a programme or to solve them. What would you do to solve these problems?

1. Some teachers lock the school toilet for their own use.
2. At the beginning of school recess or lunch break in some schools, children run from the class to the toilets or urinals because they are not allowed to use these during class time. They have to “hold themselves” during the class and they feel uncomfortable.
3. Teachers find it difficult to organise children for washing their hands before eating. It takes too much time and messes the water point.
4. After constructing the facilities, some schools do not have soap or cleaning materials (such as brooms).
5. In some schools, very unfortunately, only the girls or only the lower castes are involved in cleaning the toilets or sweeping the school compound.
6. Vandalism and community use of school facilities: How can needy community members use school water points, but still maintain them for the children and teachers?
7. The water points and toilets/urinals are not cleaned and are not repaired.
Hygiene teaching methods should help children understand and develop new practices. However, use by memorising facts does not always lead children to adopt new practices. This means that the educational methods should go beyond having children learn facts by heart. The best SSHE programmes try to help children “learn by doing”. These participatory methods also make learning enjoyable.

Children learn best by doing activities, that is, by participating. Some participatory methods can be used even in large classes. However, the methods must be simple and practical. It is suggested that training of the teachers should start with easy methods and teachers should be given the chance to practice these during the training programme. Examples of participatory methods that can be used in larger classes are:

- Monitoring charts: Each week children and teachers check a number of hygiene and cleanliness habits or places in the school. These are entered into a chart where progress can be seen as time goes by.
- Stories: The teacher tells stories with an unfinished ending, thereby leaving to children to find a suitable end to the story.
- Demonstrations: A child or teacher demonstrates how to do something. For example, how to wash hands correctly, how to explain about personal hygiene or tell a younger child about how to use a latrine.
- Posters: Teachers show a poster that illustrates many hygiene problems and asks children to identify these.
- Rosters: Rosters of responsibilities for children for water, hygiene and sanitation-related activities.

The activities include: Cleaning the class, monitoring handwashing among young pupils, cleaning latrines at the end of the day and so on.

Other hygiene education activities inside the classroom are: Debates, quizzes, music and songs, dancing, drama and poems, health parades, personal checks, games. Children usually like experiments. For example, the children wash hands with different things such as with soap, with ash, with water only. They use different amounts of water.

Activities about hygiene also take place outside the classroom: Camps and rallies; competitions; morning prayers and assembly; inter-school visits; health check-ups and referrals.
**Materials**

Examples of materials used for hygiene education are daily progress charts, modules and resource books, oral-faecal chart, flashcards on seven components of hygiene, books on sanitation, posters on sanitation and water and activity cards.
The Total Sanitation Campaign of the Government of India has a target of providing the country’s schools with latrine blocks, including a focus on toilets/urinals for girls. It is hoped that school students will carry messages about hygiene, toilets and handwashing to their homes and neighbourhoods.

SSHE can reach into homes and community, improving sanitation. This works in two ways. First, adults learn about hygiene and sanitation when they are involved in SSHE. Secondly, children are motivators for better hygiene and sanitation in the home and community.

When adults are involved in SSHE they learn about hygiene

Facilities constructed with community and school participation will probably be better used or maintained correctly. At the same time, adults can learn about and can be better motivated for sanitation. This happens in SSHE when local groups such as the schools management committees and panchayat are given information and discuss the SSHE programme. It is also important for parents (both mothers and fathers) and community to have an understanding of the purpose of SSHE. In the better programmes, they make decisions about design, construction and location of facilities. They
contribute at the beginning of the programme and help in monitoring. Parents take part in special school events for SSHE. They pay for recurring costs such as for soap, for cleaning materials, repairs, educational materials.

Groups of parents and other people in the community help plan and keep the programme going. These groups vary from one place to another. They may be the School Management Committee (SMC), Village Education Committee (VEC), Parent-Teacher Association (PTA), Self-Help Groups (SHGs) and others such as youth groups, Panchayati Raj Institutions (PRI), Cluster Resource Facilitator (CRF) or an NGO. The adults in these groups learn to understand and become motivated about the programme.

The school and children as motivators for sanitation

Children can bring important and positive messages to the home and community as a whole. This can take place through many activities such as:

- Older school children take care of younger sisters and brothers. They improve personal hygiene such as bathing, face washing and handwashing
- Children are more careful about wasting water. They learn to use water carefully and practice this at home
- Boys and girls help parents in keeping the home clean
- Children ask parents for soap for handwashing and construction of toilets at home
- Children participate in hygiene promotion activities such as rallies, parades and exhibitions

The school health club often has activities in the community. These include surveys where, for example, the children count the number of houses with toilets and gives messages on better hygiene practices.

Earlier, the attitude was that children are like grass: Basically, they grow by themselves. Now, women see that children are like flowers: They need to be taken care of, need to be clean, need nutritional food and learn about hygiene at home. Thus, parents are more willing to take up the messages, which the children bring home.

- NGO staff working in SSHE, Kerala

Training for women PRI members
### Key indicators table for SSHE

<table>
<thead>
<tr>
<th>KEY ISSUES</th>
<th>ACTIVITY</th>
<th>TARGET</th>
<th>MONITORING INDICATORS</th>
<th>WHEN TO MEASURE</th>
<th>RESPONSIBILITY</th>
<th>EXPECTED OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use and maintenance of latrines</td>
<td>Use and maintenance of latrines</td>
<td>All latrines/urinals maintained and in use</td>
<td>Clean Locked Clearing around Presence of flies Smell A path</td>
<td>Daily</td>
<td>School health club, duty master, headmaster</td>
<td>Well maintained latrines in use</td>
</tr>
<tr>
<td>Construction of adequate latrines</td>
<td>Construction of adequate latrines</td>
<td>Additional latrines/urinals</td>
<td>Built Latrines</td>
<td>Daily</td>
<td>Parents, PTA/VEC</td>
<td>Additional latrines/urinals</td>
</tr>
<tr>
<td>WATER BORNE DISEASES</td>
<td>Covering water and food</td>
<td>Ensure water and food are covered</td>
<td>Lids Covers Pots Drums</td>
<td>Daily</td>
<td>SHC, Teacher/HM</td>
<td>All foods and water covered in school/homes</td>
</tr>
<tr>
<td>Boiling of water</td>
<td>Boiling of water</td>
<td>All drinking water boiled/heated with BP</td>
<td>Firewood Fire Warm Taste</td>
<td>Daily</td>
<td>SHC, Teacher, Noon meal workers</td>
<td>All drinking water is boiled/treated with bleaching powder solution</td>
</tr>
<tr>
<td>Washing hands after visiting latrines</td>
<td>Washing hands after visiting latrines</td>
<td>Ensure all pupils wash hands</td>
<td>Soap, water, leak tin, basin</td>
<td>Daily</td>
<td>Pupils, SHC, duty master</td>
<td>All pupils and teachers wash hands</td>
</tr>
<tr>
<td>Dish racks and rubbish pits</td>
<td>Dish racks and rubbish pits in school/homes</td>
<td>Presence of rack and rubbish pit</td>
<td>Daily</td>
<td>SHC, parents, pupils</td>
<td>Have racks and rubbish pits</td>
<td></td>
</tr>
<tr>
<td>WORM INFESTATION</td>
<td>Wearing Chappals</td>
<td>Ensure all children wear chappals</td>
<td>Chappals outside class room</td>
<td></td>
<td>SHC, HM, class teacher</td>
<td>All children wear chappals</td>
</tr>
</tbody>
</table>
10 Steps to look after the toilet

Now you have a toilet you must look after it -
A badly kept toilet will smell and can cause diseases

1. Make sure there is water and soap available
2. Pour some water in the pan before and after use
3. Wash your hands with soap after you have used it
4. Use a brush to clean the toilet
5. Wash the urinals, slab, squatting plate and pan regularly with the brush, soap powder and some water
6. Make sure the door is locked after using a toilet and easy to lock and open
7. Keep the urinal and water drainage clear of twigs and leaves so that it does not get blocked
8. Keep the area surrounding the toilet clean and plant trees near the urinal soak pit
9. Maintain the building, fix damages, and paint the walls
10. Check the pit after three years and use a new pit before it is completely full
## Roles and responsibilities of key stakeholders at different levels*

<table>
<thead>
<tr>
<th>Functional level</th>
<th>Key actors</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School</strong></td>
<td>Students</td>
<td>Use safe water and sanitation facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regularly practice hygiene behaviour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leave the sanitation facilities clean after every use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guide younger children to use facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Keep classroom and school environment clean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participate actively in school health committee activities</td>
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<tr>
<td></td>
<td></td>
<td>Take sanitation and hygiene messages home</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Educate family members and neighbours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health club to do household survey in the school’s catchment area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rallies in the village</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td></td>
<td>Lead by example. Use sanitation facilities always</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Keep the toilet open for use by all children</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teach the children how to use and keep facilities clean</td>
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<tr>
<td></td>
<td></td>
<td>Guide and supervise school health club activities</td>
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<tr>
<td></td>
<td></td>
<td>Teach sanitation and hygiene songs</td>
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<tr>
<td></td>
<td></td>
<td>Help the headmaster in all SSHE activities</td>
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<tr>
<td></td>
<td></td>
<td>Regularly monitor the use of facilities</td>
</tr>
<tr>
<td><strong>Head master</strong></td>
<td></td>
<td>Lead the school SSHE team</td>
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<tr>
<td></td>
<td></td>
<td>Share sanitation and hygiene messages with all children in school prayer daily</td>
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<tr>
<td></td>
<td></td>
<td>Prepare roster for school health committee</td>
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<tr>
<td></td>
<td></td>
<td>Actively co-ordinate with VEC and Panchayat</td>
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<tr>
<td></td>
<td></td>
<td>Organise and monitor repairing of existing facilities.</td>
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<tr>
<td></td>
<td></td>
<td>Use the maintenance grant under SSA for repair of school facilities</td>
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<tr>
<td></td>
<td></td>
<td>Organise, collect resources and funds for new facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Motivate teachers and students to keep the school facilities and environment clean</td>
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<tr>
<td></td>
<td></td>
<td>Organise rallies and IEC activities in the village</td>
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<tr>
<td></td>
<td></td>
<td>Support and supervise construction of school toilet</td>
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<tr>
<td></td>
<td></td>
<td>Support BHESST member in monthly monitoring of the school</td>
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<tr>
<td></td>
<td></td>
<td>Display monitoring card and star in a prominent place in the school</td>
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<tr>
<td></td>
<td></td>
<td>Actively involve the community members in all the school activities</td>
</tr>
<tr>
<td>Functional level</td>
<td>Key actors</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>------------------</td>
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<td>------------------</td>
</tr>
<tr>
<td><strong>School</strong></td>
<td>Students</td>
<td>Provide overall leadership to all SSHE activities in the block</td>
</tr>
<tr>
<td></td>
<td>Supervisor BRT Educators AE (TWAD) BHS/BEE (Health) CDPO (ICDS) EO (AD) RDBC (Conti. Edn) BC (TSC)</td>
<td>Assessment of existing water and sanitation facilities in all schools in the block</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Categorisation of schools as A, B and C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planning for capacity-building of schools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource persons for cluster level training of school teams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collection of school-level details and plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sustained motivation and guidance of school SSHE team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joint monthly monitoring of schools with school headmaster</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monthly compilation of school level information collected by all members.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support school team in mobilising resources in funds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Converge all departments’ effort to create adequate water and sanitation facilities</td>
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<tr>
<td></td>
<td></td>
<td>Award STARs to schools</td>
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<tr>
<td></td>
<td></td>
<td>Participate in monthly district SSHE meeting and share block report</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select best schools within the block and recognise the contribution of good headmasters and teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prepare success stories for Newsletter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organise and co-ordinate all SSHE activities in the district</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planning, guiding implementation, release of funds, monitoring of all SSHE activities</td>
</tr>
<tr>
<td><strong>District</strong></td>
<td>District SSHE team</td>
<td>Organising capacity-building of BHESSST teams and school cluster trainings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assess demand for facilities and prepare district SSHE plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compilation of SSDMS data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organise training for Engineers on design options.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure convergence and co-ordination between all departments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recognise and award good work by BHESSST members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support IEC campaign activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documentation of success stories</td>
</tr>
</tbody>
</table>

*Example from Tamil Nadu.*
Technological Options
(Comparison between leach pits & Septic tank)

Twin pit pour flush toilet (Below ground features)

Cross-section of septic tank

<table>
<thead>
<tr>
<th>Leach Pits</th>
<th>Septic Tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low costs</td>
<td>High in cost</td>
</tr>
<tr>
<td>Less space</td>
<td>More Space</td>
</tr>
<tr>
<td>Needs little water</td>
<td>Needs more water for flushing</td>
</tr>
<tr>
<td>Sludge handling easy-manure</td>
<td>Sludge handling difficult</td>
</tr>
<tr>
<td>No recurring cost</td>
<td>Recurrent costs for emptying</td>
</tr>
<tr>
<td>Pit emptying easy</td>
<td>Safe disposal of effluents - pollution</td>
</tr>
<tr>
<td>No mosquitoes</td>
<td>Mosquito menace</td>
</tr>
</tbody>
</table>