

Toolkit

WASH in Schools and Learning Centres



Minimum Standards and Integration of WASH in Education Settings

This document was developed by Concern's Strategy, Advocacy and Learning Department. Last updated April 2021.

For further information you can contact:

Amy Folan
Senior Education Adviser
Amy.folan@concern.net

Franck Flachenberg
Senior WASH Adviser
Franck.flachenberg@concern.net

Maria Petrosino
PM&E Adviser
Maria.petrosino@concern.net

Agathe Freal
Education Officer
Agathe.freal@concern.net

John Heelham
WASH Engineering Adviser
John.heelham@concern.net

Zelalem Fisseha
M&E Officer
Zelalem.fisseha@concern.net

This toolkit was developed to provide country teams with practical guidance on the implementation of Water, Sanitation and Hygiene (WASH) activities in schools and learning centres. The content was developed to respond to needs within a range of low income and crisis affected contexts in which Concern works. The guidance builds on the learning from Concern over the years and aims at supporting teams preparing, designing, planning and implementing WASH activities within schools or learning centres ensuring a holistic approach to Education integrating WASH and ensuring quality standards and efficiency of the intervention.

The lack of adequate WASH facilities in schools negatively effects student absenteeism and academic performance due to a number of factors:

- Worm infections and dehydration causing reduced cognitive function and performance with children subject to whipworm missing twice as many school days and dehydration reducing cognitive function and performance
- Diarrhoeal disease and/or respiratory infections causing children to miss school. 194 million school days would be gained due to less diarrhoeal disease if MDG targets for sanitation were met (1).
- Difficulty of managing menstruation at school causing girls to not attend school or to drop out
- Unsafe WASH facilities and lack of privacy inducing fear of assault and therefore absenteeism to school
- Need to fetch drinking water leading to missed classes, especially if children have to make several trips per day. A study in 25 sub-Saharan African countries showed that collectively, children spent 4 million hours per day collecting water (2).

There is evidence that WASH interventions reduce school absenteeism by 39% overall but with a greater impact on girls with 58% reduction (Freeman et al., 2012). It is also proven that comprehensive WASH interventions at school level are effective in preventing illnesses and diarrhoea. One of the main pillars for improved educational outcomes is that healthy learners are better learners and therefore foundations for health, especially WASH, should be supported in every school.

One way of achieving improved educational outcomes is by providing schools with safe drinking water, improved sanitation facilities and hygiene education to improve the health and learning performance of school-aged children and by extension, that of their families and to encourage the development of healthy behaviours for life. This strategic approach is known as WASH in Schools.



Implementing WASH in Schools helps fulfil children's rights to health, education and participation, and contributes to achieving the SDGs – particularly those related to providing access to primary education, reducing child mortality, improving water and sanitation, and promoting gender equality. It supports children's rights to schools that are safe and protective, that offer potable drinking water, hand-washing facilities, clean and safe toilets and knowledge about hygiene and how to protect themselves and their families from infectious diseases. WASH in Schools not only promotes hygiene and increases access to quality education but also supports national and local interventions to establish equitable, sustainable access to safe water and basic sanitation services in schools.

Concern works towards the elimination of extreme poverty through a multidisciplinary approach, tackling the root causes of poverty and working towards strong inter-sectoral and holistic programs. Adopting a system strengthening approach is central to Concern's vision of sustainable services which leave no one behind and this is applicable both for Education and WASH systems. This toolkit aims to provide an integrated approach to WASH in Schools, ensuring community and children's participation as well as efficiency and sustainability to reach both sustained educational outcomes and extended and improved access to WASH services and knowledge. This toolkit addresses WASH in Schools activities at both school level and meso and macro level. Recognising the role of governments as duty bearers, we engage Ministries (Education and Health) in collaborative interventions ensuring alignment to national policies. Concern's objective is to strengthen existing systems and ensuring collaboration between both sectors.

In addition to this, lasting improvements can only be achieved through multi-sectoral programmes. This includes integrating Education with WASH, natural resource management, DRR, child protection and gender equality. The response should enhance long term community goals and minimise environmental impact. Sustainable WASH outcomes cannot be realised where there are poor environmental conditions or practices which may lead, for example, to depleted or contaminated water resources. Ensuring the design, activities and facilities are also safe, child-friendly, age-sensitive and accessible for both girls, boys, men, women and people with disability is central in this Toolkit.

Contents

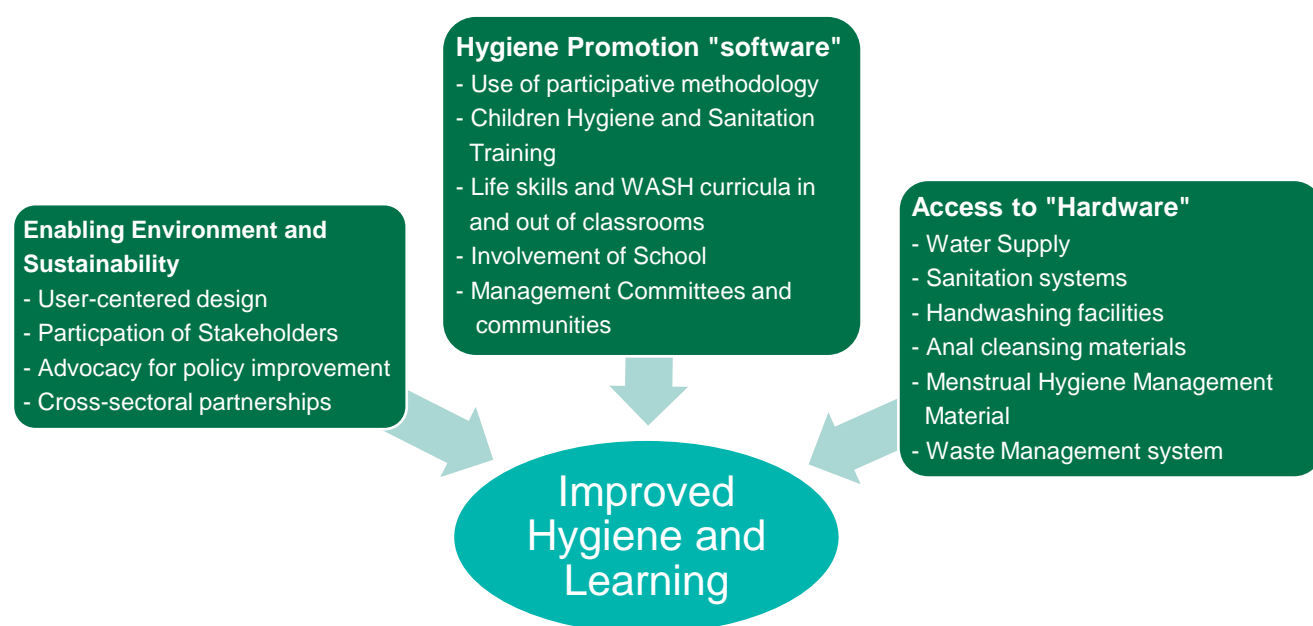
Wash in Schools Toolkit	1
Concern's WASH in School Framework	1
WASH in School Minimum Standards	1
Water	3
Drinking water	4
1. Access to Improved Drinking Water on school premises	4
2. Water treatment	8
Non drinking water	12
Management of Water Resources	12
Hygiene	13
Handwashing	14
1. Establishing Handwashing Stations:	14
2. Washing Hands with Soap	17
3. Promoting Handwashing	17
Menstrual Hygiene Management	19
Sanitation	21
1. Building Toilets	22
2. Rehabilitation and Maintenance of Latrines	27
Solid Waste Management	28
Hygiene and Sanitation Education	30
Promoting Hygiene and Sanitation at School	31
1. Interventions at school level	31
Monitoring and Evaluation	33
Additional Resources	36
References	37
Pictures captions	37

Wash in Schools Toolkit

Concern's WASH in School Framework

To ensure an integrated approach to WASH in Schools, Concern defined a framework of intervention. This framework outlines the scope of actions Concern can consider to reach both sustained educational outcomes and extended and improved access to WASH services and knowledge. The provision of **hardware** (facility and infrastructure) and consumables (soap, sanitary pads) is in itself not sufficient to have a significant impact on the occurrence of diarrheal diseases or on the adoption of new hygiene behaviours to ensure children and education personnel understand the importance of and adopt essential hygiene habits as part of their routine. In addition, **software** should be promoted at school with participatory activities for children and school personnel, ensuring basic life skills are integrated and practiced. The management structures such as head teachers, school and water management committees as well as community leaders should be involved as much as possible. Ensuring close collaboration with the authorities at all levels and getting buy in and support of key stakeholders is essential not only for **sustainability** but for system strengthening and ensuring mainstreaming WASH at school is promoted and ultimately integrated into official curricula.

Embedding these three aspects into any intervention will increase sustainability, impact, relevance and coherence and ensure interventions are holistic with clear, structure and purpose.



WASH in School Minimum Standards



Minimum standards exist to describe the sets of actions needed so that people can enjoy their right to receive protection and assistance and to have basic conditions for life with dignity. They specify the minimum levels to be attained in humanitarian response. The SPHERE standards are the most commonly used and most widely known set of humanitarian standards and have sector specific standards for WASH and for environmental protection. Education standards are stated by INEE (Inter-agency Network for Education in Emergencies). In addition, the SDGs (Sustainable Development Goals) outline global and national targets to be reached and agencies such as UNICEF have released guidance on specific standards. Therefore, this toolkit aims at **centralising these various standards and stating Concern's position and priorities** for the different interventions, especially where different stakeholders recommend different standards. The standards that Concern aims to reach for WASH in Schools will be specified for each activity at the beginning of each of the sections and sub-sections.

Sometimes the minimum standards may exceed everyday living conditions in the school or the community but adhering to the standards remains essential. It is then crucial to engage with the communities and to involve with community leaders. What is appropriate and feasible will depend on the context. In cases where the standards cannot be met, Concern's country teams will explain in any proposals, reports or assessments the gaps and detail the reasons for it, assess possible negative implications and take appropriate mitigating actions to minimise the harm caused by these implications.

Standards	Water	Sanitation	Hygiene
SDG Basic Service Level	Schools have access to drinking water from an improved source available at the school	Schools have access to improved sanitation facilities at the school, which are single-sex and usable	Schools have access to basic handwashing facilities which have soap and water available.
SPHERE	<ul style="list-style-type: none"> • Safe and equitable access to a sufficient quantity of water for drinking, cooking and personal hygiene. • Water is palatable, and of sufficient quality to be drunk and used for personal hygiene without causing significant risk to health. • Adequate facilities and supplies to collect, store and use sufficient quantities of water for drinking, cooking and personal hygiene, and to ensure that drinking water remains safe until it is consumed. • Addressing environmental impacts when identifying the most appropriate groundwater or surface water sources; reusing greywater and harvesting rainwater. 	<ul style="list-style-type: none"> • Adequate numbers of toilets, sufficiently close to allow them rapid, safe and acceptable access. • Toilets are sited, designed, constructed and maintained in such a way as to be comfortable, hygienic and safe to use • Environment that is acceptably uncontaminated by solid waste and prioritizing reusing, repurposing, recycling, or composting solid waste. • Environment in which the health and other risks posed by standing water are minimized. • Minimizing environmental impacts of excreta management, for example from contamination of surface or groundwater sources with correct disposal or treatment of water with minimal environmental damage. 	<ul style="list-style-type: none"> • All facilities and resources provided reflect the vulnerabilities, needs and preferences of the affected population. • Users are involved in the management and maintenance of hygiene facilities where appropriate.
Concern Priorities	School pupils and staff have access to a source of drinking water which is free from contamination, and available at all times to everyone.	<p>School pupils and staff have access to suitable and safe sanitation facilities which cover the needs of everyone, and are available at all times.</p> <p>School pupils and staff are able to learn in a clean environment which is free from contamination by solid waste, standing water or poor excreta management.</p>	<p>School pupils and staff have access to handwashing facilities which cover the needs of everyone, with water and soap available at all times.</p> <p>Girls and female members of staff have safe and reliable access to menstrual hygiene management facilities.</p>

About the Toolkit

This manual has been designed to provide country teams with practical guidance on the implementation of WASH in schools and learning centres. It has been designed so that the necessary information can be found as quickly and easy as possible. The Toolkit is split into six main categories, Water, Hygiene, Sanitation, Hygiene and Sanitation Promotion at school and Monitoring and Evaluation. Within each of the categories, you can find:

-  General objectives
-  Minimum standards

Details on specific activities can then be found within each options **A**, **B**, **C**. The options provide examples of activities which can be implemented in schools or learning centres depending on the available budget, the time and technicality of the work, the maintenance required etc. You can therefore refer to the option which is applicable to your context. You can also find **Additional Resources** at the end of each section to access more detailed and technical information on specific activities.

Across the toolkit, crosscutting themes are integrated in each of the sections, but some of the topics have specific tips or information. Throughout the document, you will see little blue boxes, which highlight specific crosscutting issues to be aware of or pay close attention to:



To achieve Sustainable WASH outcomes, responses should minimise environmental impact. Sustainable WASH outcomes cannot be realised where there are poor environmental practices which may lead, to depleted or contaminated water resources.

It is necessary to apply a gender lens to every sector of our programming, understand the gender inequalities that affect participation in our programmes and the benefits gained from them, and design and implement strategies to promote equitable access and outcomes



Water









Objectives:



Schools shall have an organized system to ensure that adequate and safe drinking water is available, as well as water for handwashing, toilet use, menstrual hygiene management, and cleaning purposes available to all students during school hours.

- **Learners and school personnel** are enabled to keep themselves hydrated, are less prone to waterborne illnesses with access to safe drinking water and feel comfortable using toilets and wash areas because there is adequate clean water. Students carry themselves more confidently among their peers as they are able to practice proper hygiene with access to clean water in school.
- **Menstruating girls** can experience less stress, be confident and participate in school when they are able to clean themselves during their period.
- **School services** are improved and functional with clean water; toilets and wash areas are clean and comfortable to use because of adequate water for proper use, cleaning, maintenance and when applicable, cooking.
- Schools practice **gender-neutral division** of hygiene-related tasks such as cleaning toilet, fetching or boiling water.

Outline of the Section:

Drinking water	Page 4		
1. Access to Improved Drinking Water on the school premises	Page 4		
A 	B 	C 	D 
Water from home (p.5)	Rainwater (p.5)	Borehole / Well (p.6)	Piped water (p.7)
2. Water treatment	Page 8		
A 	B 	C 	D 
Solar Disinfection (p.8)	Boiling (p.9)	Chlorination (p.9)	Filtration (p.10)
3. Safe storage of drinking water			
Non drinking water	Page 11		
Management of Water Resources	Page 12		

Drinking water

Objectives:



- Safe drinking water is provided for free for all children and staff in the school at all times.
- The quality of the water is tested on a regular basis in coordination with the relevant agency/office.

Minimum Standards:







- 3 litres/person/day for drinking and hand washing (for pupils and staff), plus additional water for cooking
- Potable water with zero faecal contamination meeting national and international standards for water quality.
- Water is chlorinated where possible and feasible to 0.2-0.5mg/litre Free Residual Chlorine (FRC).
- Water storage containers have narrow necks and and/or covers and taps, or other safe means of storage and handling exists



In order to ensure that the water has a higher chance of being potable, the water should be provided from an improved source. An improved source is a source which has the potential to provide safe water by nature of its design and construction. It can include piped water, boreholes, tube wells, protected dug wells with hand/foot pumps, protected springs, rainwater, and packaged or delivered water. Even though these sources have the potential to provide potable water, there is still a chance of contamination of the source if the work is poorly constructed or maintained. Contamination can also occur between the point of water supply (e.g. the tap) and the point of consumption. Ideally a water point would be available on the grounds of the school to ensure that children and staff can access water directly.

1. Access to Improved Drinking Water on school premises

If the school has no access to water, options for accessing water in the school include, but are not limited to:

Options	A 	B 	C 	D 
Water Source	Children bring water from home	Rainwater harvesting – collecting water from the roof of the school building	Borehole / well with hand pump	Piped water system
Best for Schools with:	No existing access to water Water source at school not possible due to poor pressures / deep water tables	A high level of rain for at least 5-6 months of the year Sufficient roof space Roof made of tiles or metal sheeting without holes – not with straw	A water table of less than approx. 60m (for a borehole); less than approx. 20m (for a well)	Location in a hilly / mountainous area (good water pressure) or linked to an existing sustainable water system
Labour	Time of parents to collect water from nearby source	Experienced labourers / contractor	Experienced labourers / contractor	Experienced contractor
Time for construction	N/A	3-6 days	7-14 days	14-21 days
Durability	N/A	5-8 years	10-15 years	10-15 years
Material	Used water bottles	Metal Sheetting or PVC pipes (for guttering). Plastic or brick / concrete / cement tank Sand, gravel & cement	Drilling rig / tools for digging. PVC pipes Sand, gravel & cement Iron bars Hand pump & accessories	Plastic (PVC or PE) or galvanised iron pipes Sand, gravel and cement Bricks/blocks Iron bars
Operation & Maintenance	Daily refilling of bottles Cleaning of bottles Replacement of broken bottles Monitor cleanliness and replace bottles accordingly	Cleaning of guttering Cleaning of tank Maintenance of drainage channel Replacement of cracked pipes and broken taps	Regular preventative maintenance through an experienced pump mechanic Replacement of hand pump parts	Cleaning of area around the source Replacement of cracked pipes and broken taps



Option A

Children bring water from home

Best for schools with:

- No water source around or water source which is not sustainable
- Improved water sources exist in the communities nearby but not the school (hand pumps, piped water etc.)
- School will be getting a dedicated water source in the future (or will be connected to an existing network)
- It is not possible to construct a water source at the school due to technical issues (e.g. deep water table / no nearby water spring, environmental impact, etc.)



- ✓ **Material** The most likely suitable material to enable children to take water from home to school would be a plastic bottle – e.g. an empty soft drinks bottle of 500ml or 2 litres (for young children, prioritise small bottles due to the weight). A more robust plastic bottle can also be provided.
- ✓ **Design** Children will be asked to bring water from the community or from their home in their bottle every day to drink from it.
- ✓ **Location** The water point would be located at or close to the children's houses.
- ✓ **Costs** Limited – it would be assumed that plastic bottles would be easily available freely or cheaply. A more robust plastic container would be in the region of 10-15USD.
- ✓ **Operation & Maintenance** Regular cleaning of the bottles would be absolutely essential to ensure no cross-contamination occurs. Daily refilling would need to take place and bottles should only be used for the children's drinking water. Used plastic bottles will need to be replaced on a regular basis due to degradation. Any used plastic bottles should be disposed of responsibly and safely, and recycled where the possibility exists. Children should be educated on safe disposal and recycling options.
- ✓ **Community Involvement** If children are only able to access water at home and not at school, it requires that the community water point exists and that children are supported by their caregiver to refill and clean their bottle every day.



Option B

Rainwater Harvesting

Best for schools where:

- Standard water source (piped water / borehole with handpump) is not possible
- Buildings are well-constructed with a roof made of tiles or metal sheeting which slope down in one direction, with no cracks or holes in the roof
- In areas or regions with a high amount of rainfall over a period of approximately 5-6 months (this does not have to be consecutive) – however, this will also depend on the roof size.



Climate hazards: Note that **changes in climate** may affect the ability to collect rainwater, the period when it is collected and the quantities that may be collected. Slow onset events, such as drought and water scarcity, could decrease the amount collected; whereas large downpours of rain leading to flash floods could dramatically increase the amount of water available for collection.

- ✓ **Material** Plastic pipes; clips; bricks, cement, concrete; tank (plastic or concrete); tap; stones

- ✓ **Design**

5000 litres CEP/CDS Kinama-Mubimbi, Burundi, Felix Bayuhire



Guttering (PVC plastic pipe cut in half or folded metal sheets – PVC being more robust) will need to be placed at the edge of the roof to collect rainwater. This should then have a sufficient slope throughout the guttering to ensure that all the water can reach the storage tank.

A storage tank (plastic, bricks and cement, concrete or ferrocement) should be installed at the end of the guttering, connected by a closed pipe (normally of PVC). The tank should be raised on a pedestal (bricks or concrete). The tank will have 4 pipes: an inflow, an overflow, a supply pipe (with a suitable tap) and a drainage pipe (closed with a valve). It should be completely closed, but with an access hatch to allow cleaning.

The size should be sufficient taking into account the number of children, roof size, and length of the dry season.

A drainage channel should be included underneath the supply tap, the drainage pipe and the overflow, to ensure scour/erosion doesn't take place. The channel can either lead to a soakaway pit (a hole in the ground filled with stones) or taking the water further away.

- ✓ **Location** Next to the school buildings.
- ✓ **Costs** USD3,000-5,000
- ✓ **Operation & Maintenance** The gutters and pipes should be cleaned regularly, especially just before the start of the rainy season(s), to clear out any dirt, dust, leaves, etc. They should also be checked regularly for any cracks or breaks and replaced as soon as possible. The tank should be fully drained and cleaned when empty, and just before the start of the rainy season. It should also be regularly checked for cracks or breakages. Spare taps should be kept at the school, so that any broken/stolen taps can be replaced asap.
- ✓ **Community Involvement** The community can support with the non-skilled labour for the construction of the tank and installation of the guttering and the maintenance, such as cleaning of the guttering. However, skilled labour, which may be available within the community, will be required for certain parts of the construction/installation.



Option C

Borehole / Well with hand/foot pump

Best for schools with:

- Water table that allows pumping by hand with a standard pump –approximately no more than 60m depth for a borehole / 20m for a well
- A suitable and sustainable amount of water available within the aquifer
- Funding available, either through school funds or local community contributions, to go towards operation and maintenance costs of the hand pump.



- ✓ **Material** Concrete; sand; cement; gravel; PVC pipes; filter materials; handpump; resources to drill/dig
- ✓ **Design** There are two alternatives to the design of this water source:
 1. Hand-dug well: for areas with a relatively shallow water table (approximately down to 20m), a circular well of approximately 1.5m in diameter can be dug by hand (health and safety procedures MUST be adhered to), until it reaches a certain depth below the water table (set by national guidelines). Reinforced concrete rings are inserted around the edge of the well to protect it from collapsing and to ensure a sufficient seal between potentially contaminated water from the surface, and the clean water inside. A protective lid, normally of reinforced concrete, will then be placed over the well.
 2. Borehole: Either through drilling by a large drilling machine, through manual drilling, or other means. This borehole will reach a certain depth below the water table which should be agreed by a professional. The borehole will need to be developed through pumping air/water through it, and insertion of pipes surrounded by a gravel filter.

In both cases, the well or borehole will be capped with the installation of a pump and its associated parts. This is likely to be either a pump of type India Mark, Afridev or Vergnet, depending on the availability in the area, and those which are more commonly used. An apron should also be installed around the pump for the surrounding area to stay clean and ensure that the well or borehole does not become contaminated by dirty surface water.
- ✓ **Location** Ideally should be located within the school grounds, and must be located at least 30m away from any latrines or waste pit. However, the location will be dependent on the best location for finding a good water table level and water yield.
- ✓ **Costs** USD 3,000 (for a well) - USD 15,000 (for a borehole)
- ✓ **Operation & Maintenance** Regular maintenance of (hand) pumps is vital, and a detailed preventative maintenance plan should be in place and followed by trained mechanics. A stock of spare parts should also be kept to make sure that any necessary repairs can be made as soon as possible. The area around the pump should be kept clean through regular monitoring and surveys.

Most water points in communities will be managed by a water point committee, who ensure maintenance is undertaken, fees for the cost of this maintenance collected, and problems fixed as soon as possible. If this water point is solely for the school, it is likely that the school management committee will undertake this role, but it will be important to ensure that finances are available to

pay for maintenance and spare parts – either through school budgets, or contributions from community.

✓ **Community Involvement**

The community can support with the non-skilled labour required for construction/installation, as well as cleaning of the area around the hand pump. However, skilled labour, which may be available within the community, will be required for certain parts of the construction/installation, and a borehole will need to be drilled by experts.



Option D
Piped water system

Best for schools:

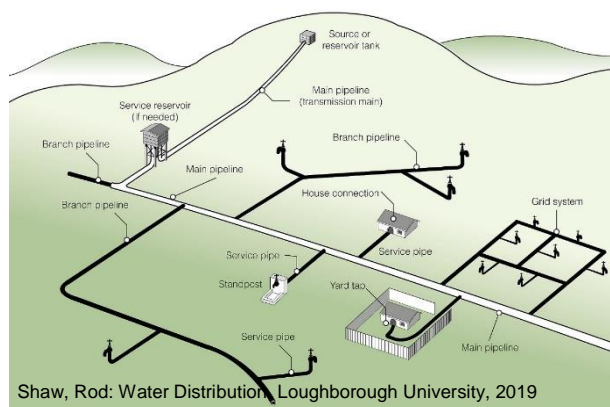
- Either located in a hilly / mountainous area with one or several springs and sufficient pressure or linked to a piped water system
- A suitable and sustainable amount of water is available from the spring to avoid over-abstraction.
- Funding available (through school funds or local community contributions) to go towards operation and maintenance costs of the system.



✓ **Material**

Cement; sand; gravel; bricks; pipes; tanks (plastic or otherwise); filter material

✓ **Design**



Water will originate from a spring located above the school. This spring will need to be protected to ensure that the water is safe to drink. This would need to be done by an experienced contractor. The water would then normally be piped to a header tank (a small tank which collects water to allow pressure to build up). This water can then be directed to the school (and, if enough quantity, to the community). Depending on the amount of water required, a storage tank can also be built (with suitable elevation to give enough pressure), from which water can flow to tap stands in various parts of the schools/ community. Note that depending on the

quality of the water from the spring, some element of water treatment may be required.

✓ **Location**

Depending on the amount of pressure possible, any tap within the school should be as close as possible to the point of use (close to latrines for children to wash their hands; to areas where children might eat; and/or in central areas where children might want to collect drinking water).

✓ **Costs**

Depends on the distance from the spring to the school –from USD 3,000- USD 20,000

✓ **Operation & Maintenance**

An area of at least 30m around the spring should be fenced and kept clear of people, livestock or agriculture to ensure there is less chance of water being contaminated. This should be checked at regular intervals. All of the piping, tap stands, taps, tanks, etc. should be checked for leaks, breaks and cracks and repaired as soon as possible to ensure good quality and quantity of water.

If the water system is only for the use of the school, budget should be made available for this maintenance (from school budgets or community). Where it is shared with other facilities, a suitable mechanism, as per country guidelines, should be set up to facilitate fee collection and operation and maintenance, e.g. water management committee (with school representation).

✓ **Community Involvement**

The community can support with the non-skilled labour required for construction/installation, as well as cleaning of the area around the taps. However, skilled labour will be required for certain parts of the construction/installation.

Additional Resources

- [Rural Water Supply Network Resources on Groundwater](#)
- [Resources on hand dug wells](#)
- [Rainwater harvesting library](#)
- [Water Distribution](#)
- [Concern's PQ Guide section on water](#)
- [Akvopedia Water Portal](#)

2. Water treatment

The options listed above should be able to provide safe drinking water to schools. Nevertheless, in order to ensure that the water remains safe and does not become re-contaminated, treatment is recommended, where possible. There are a number of low-cost options suitable for different settings and financial and human resources to ensure water is safe for drinking. In many schools (especially secondary), water treatment methods are a part of the pre-existing science curriculum. You can encourage science teachers to supplement their lessons with some of these activities.

B+D
C+D

Note that for water treatment, a **multi-barrier approach** is the most effective, and using more than one of the options below will help to ensure safe, clean drinking water. For example water which needs to be filtered to reduce cloudiness (turbidity) will likely also need to be disinfected with chlorine. Boiled water could easily get re-contaminated if incorrectly stored, and so chlorination will also ensure the water is safe and clean.

Options **A**  **B**  **C**  **D** 

	Solar Disinfection	Boiling	Filtration	Chlorination
Treatment Best for Schools with:	Water from home Small number of pupils Area with sufficient amount of sunlight Roofs made of sunlight-reflecting surfaces	Other water treatment not possible No water from improved source and possibility of contamination but no testing available	Limited number of children Availability of Filtration materials Training for key responsible staff as to its safe usage and storage	Supply of chlorine available and options for storage Training for key responsible staff as to its safe usage and storage
Labour	Minimal time of parents and teachers	Requires personnel to operate and boil	Personnel to install, operate and maintain	Key staff trained for usage and storage
Time for construction	N/A	N/A	Vary with type of filter	N/A
Cost	Minimal	Cost of the pots and the fuel	Vary with type of filter	1-3USD per 1,000 litres of treated water
Durability Material	N/A	N/A	Vary with type of filter	N/A
Material	Clean, non-coloured PET bottles with lids Roofs made of sunlight-reflecting surfaces (corrugated aluminium/ zinc roofs)	Pans/Pots Fuel Container for safe storage of water once boiled	Container for safe storage of water once filtered Refer to section for each type of filter	Water treatment tablets OR Chlorine powder OR Bleach Protective equipment, Locked, ventilated, dark storage
Operation & Maintenance	Monitoring and replacing water bottles Cleaning of roof	Personnel to boil, maintain, monitor fire and children's safety	Personnel to maintain, refill, change water container when full	Regular chlorination and monitoring of the treated water



Option A

Solar Disinfection (SODIS)

Best for schools where:

- Water is brought from home
- Small number of pupils
- Situated in an area with a sufficient amount of sunlight
- No resources at the school but possibility to involve the community to participate

- ✓ **Material** Clean, non-coloured PET bottles with lids (do not use PVC bottles)
Roofs made of sunlight-reflecting surfaces – e.g corrugated aluminium or zinc roofs
- ✓ **Costs** Minimal
- ✓ **Operation & Maintenance** Clear and non-cloudy water (turbidity of less than 30 NTU) is placed into a clear plastic bottle. Where water is cloudy, it should be pre-treated beforehand (e.g. filtration with a cloth). Bottles should be placed on a roof or somewhere with a clear view of the sun for long periods of time. In fully sunny conditions, consider 6 hours for the water to be treated by UV (ultra-violet) rays (in cloudy conditions- 2 days).
The bottles and lids should be cleaned on a regular basis. Likewise, scratched or aged bottles should be replaced as they are less effective. Bottles should be disposed of responsibly.
- ✓ **Community Involvement** This is recommended for small schools, or where pupils bring drinking water from home. If the school can't do it on the school premises, community mobilisation can be done for families to make this at home and support their children to bring drinking water at school every day.





Option B

Boiling



Best for schools where:

- Other water treatment not possible due to lack of resources
- There is no possibility of taking water from an improved water source and there is a possibility of contamination but no testing is available
- Access to some resources to provide fuel source
- Limited amount of children



Where a school also provides cooked food, boiling can be undertaken using the same fire/stove to ensure not too many local trees are cut down (leading to mass deforestation). Other fuel sources can also be used – such as charcoal, biomass, solar panels, electricity, etc.

- ✓ **Material** Boiling simply requires some way of heating the water (e.g. fire or stove), and clean pan/pots to heat the water in.
 - ✓ **Costs** Minimal – costs for the pans/pots and the fuel.
 - ✓ **Operation & Maintenance** Non-cloudy (non-turbid) water is simply heated over the fire or stove until it boils. The water should be kept at a rolling boil for at least one minute, adding one additional minute for every 1,000 metres of elevation. Where water is cloudy, it should be pre-treated before boiling – e.g. e.g. filtration with a cloth. The pan/pot and lid should be cleaned on a regular basis.
Boiling to treat water in schools is unlikely to be a sustainable option given the amount of water that would need to be boiled on a daily basis (e.g. for a school population of 300, approximately 900 litres of water would have to be boiled, and then cooled and stored, on a daily basis). Note that boiled water can be easily re-contaminated if not treated with chlorine.
- WARNING** Children's safety must be ensure with an open fire at school. Personnel must watch it at all times and ensure it is located where children do not have access easily.
- ✓ **Community Involvement** As for option A, it is also possible to involve the community in this activity. In cases where the school can't do it on the premises, community mobilisation can be done for families to make this at home and support their children to bring drinking water at school every day



Option C

Filtration



Best for schools with:

- Limited number of children (as filtration is a slow process)
- Availability of Filtration materials
- Possibility of training with key responsible staff as to its safe usage and storage.

We are referring throughout this whole section to two different levels of filtration:

- **Simple filtration with a cloth:** this is a first step to do with water that is cloudy (turbid) before proceeding to any other step of water treatment (boiling, SODIS or chlorination) as these methods will not be as efficient if done with non-clear water. This is what other options are referring to when filtration is mentioned.
- **Filtration as water treatment:** these are done with more elaborate filters (not just a cloth) which will allow the water to be treated and drinkable at the end of the process. This is what we are referring to in this Option C.

- ✓ **Material** A number of filters exist on the market. These include:
 - Biosand filters: container that can vary from 18 to 1,000 litres and contains finely crushed rock (sand) on which microorganisms live, treating any water coming in contact with it.
 - Ceramic Candle Filters: Ceramic candles are hollow cylindrical forms which are fastened into the bottom of a container. Water passes through this candle filter into another storage container. The candles, made of a clay mixture, are usually mass produced and sometimes contain colloidal silver which supports in pathogen removal.
 - Ceramic Pot Filters: water is poured into a porous ceramic filter pot, and passes through the pot to be collected in another storage container. The pot filters are made from a clay mixture, and colloidal silver may also be added.
 - Membrane Filters: membrane filters are essentially thin barriers with minute holes that are generally manufactured, and exist in a number of forms. Given the small size of the holes, pressure is required to push the water through the filter.
- ✓ **Costs** The cost of the purchase and/or set up of these filters will vary.
- ✓ **Operation & Maintenance** The operation and maintenance of each of these different types of filters will depend on their type. However, some key general points to be considered:

- The water being filtered should not be too cloudy (recommended under 50 NTU), otherwise it could block the filter. Cloudy water can be simply treated through settlement, or through simple filtration (pouring water through a cloth before pouring it into the filter).
- Filtering of water is a slow process, thus the process should be planned to ensure that sufficient quantities of water can be filtered and ready when required.
- Water which has already been treated with chemicals (e.g. chlorine) should not be filtered after adding chemicals, as this can irreversibly damage the filter.
- Any cleaning of the filters should be undertaken using clean water. This cleaning may involve backwashing (membrane filters) or light scrubbing (in the case of ceramic filters).
- Ceramic filters may need to be replaced after one year, as fine cracks in the filters may reduce the effectiveness of the filter material. However, the filter material in biosand filters (sand) may never need replacing.

✓ **Community Involvement**

Communities can be involved in the maintenance process or with the regular filling of the containers with water to be filtered.



Option D

Chlorination

Best for schools where:

- Good supply of chlorine available (see below for different materials)
- Training undertaken with key responsible staff as to its safe usage and storage.



WARNING

Chlorine is a chemical product and can be extremely dangerous if not handled and stored carefully. Chlorine should be stored in a cool, dark and well-ventilated place in a closed container. It should be stored away from children.

✓ **Material**

The material used can be any of the following, as long as it is labelled as usable for drinking water treatment:

- Water treatment tablets (often known as NaDCC, e.g. aquatabs)
- Chlorine powder (often known as HTH)
- Bleach (often known as sodium hypochlorite)

Note that for both chlorine powder and bleach protective equipment, such as gloves and protective glasses, **MUST** be provided and worn, as incorrect use of these products can be dangerous to skin and the body. All products **MUST** be safely stored in a well-ventilated, dark and locked room to avoid incorrect usage or ingestion by children.

✓ **Costs**

Many of these products are available in the local markets, and costs will be minimal – approximately 1-3USD per 1,000 litres of treated water.

✓ **Operation & Maintenance**

Clear and non-cloudy (non-turbid) water should be placed into an appropriate container (e.g. bucket, jerry can or small water reservoir). The water should also ideally have a pH between 5.5 and 7.5.

The amount of chlorine to be added to the water will very much depend on the type of chlorine treatment used. For all chlorination techniques, 30 minutes should be left between addition of chlorine and consumption to allow the chlorine to work. Instructions written on the packaging should always be followed – each product will have its own instructions to ensure correct dosage. However, these can be summarised as the following:

- Aquatabs: as per the packaging, but normally a 33mg tablet for 10 litres of water, 67mg tablet for 20 litres of water, etc.
- Chlorine powder & bleach: for either of these types of chlorine, first of all one litre of 1% chlorine stock solution must be made – which means that there is 10g of active chlorine within one litre of water. Where calcium hypochlorite (“HTH” High Test Hypochlorite) is used, which has approximately 65-70% active chlorine content, this will involve adding approximately 15g of powder to one litre of water (10g / 0.65). For household bleach, which is approximately 6% chlorine, this would be approximately 166grams (litres; 10g / 0.06). This one litre solution would then be dosed appropriately to ensure that the amount of chlorine in the water reaches 0.2-0.5mg/litre Free Residual Chlorine (FRC) – measured easily using testers.

Note that chlorinated water will remain chlorinated for a limited amount of time. If the water is not consumed within 24 hours, the level of FRC should be checked, and re-chlorination may be required.

Additional Resources

[CAWST library on water treatment](#)

[Technical information on chlorination](#)

[Technical brief on types of chlorine products for household water disinfection](#)

[Akvopedia Water Portal](#)

3. Safe storage of drinking water

As part of the water chain, water which is collected from a tap, hand pump, spring or tank may initially be safe to drink, but if it is not stored or transported correctly, it could easily become contaminated. All water for drinking should be stored in receptacles which are regularly cleaned, covered and do not contain cracks or places where contamination could enter. This storage could take place in jerry cans or buckets (with or without a tap) for small-sale water systems, or larger tanks (e.g. plastic, concrete, bricks and cements) for water systems where this infrastructure is already included in the design (e.g. rainwater harvesting).

Where stored water has been chlorinated, this must be used within 24 hours of chlorination.

Water Storage Water Storage



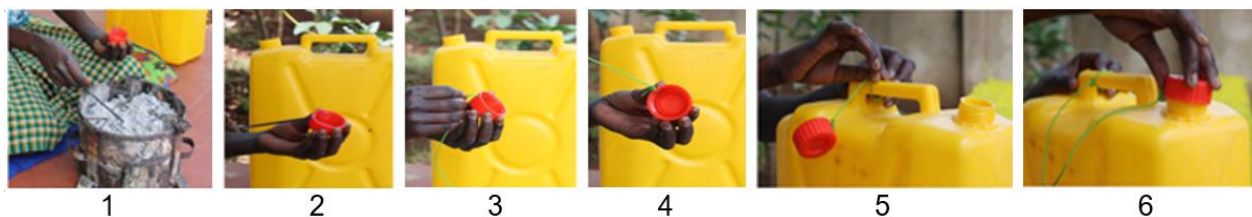
Water storage display poster, Twinkl



For buckets: buckets must have a lid – a tap is also preferable. If taps are not available, the water should be poured from the bucket into the drinking receptacle (as such, it should have a lip to allow it to do this) so as to avoid dipping a potentially contaminated cup/jug into the water, which may re-contaminate it. In any case, the bucket must be cleaned regularly.

For jerry cans: It is vital that the jerry can is cleaned regularly, and that each and every one has a lid. To avoid losing the lid, it can be secured onto the jerry can using string – see the image and description below on how to do this:

- Using a hot fire, and a thin metal rod: heat the rod so that it is hot (be careful!!)
- With the hot metal rod, poke a small hole through the side of the plastic lid, close to the open end
- Insert a short piece of string into this hole
- Tie the string tightly onto the lid
- Tie the other end of the string tightly onto the handle of the jerry can
- Place the lid on top of the jerry can and secure tightly!



Larger storage facilities may include plastic, metal or concrete tanks, and can range in size from 1,000 litres to 50,000 litres. Storage facilities will be required for systems using rainwater harvesting, as explained in section 1, option B. Gravity flow / piped water systems will be more reliable if storage facilities are included which allow water to be stored during periods of operation and maintenance of the system; or where the piped water is not available 24 hours a day. Installation, operation and maintenance of the tank(s) should follow the same practical rules as mentioned in section 1, option B, which include:

- Cleaned regularly when empty
- Always covered
- Checked regularly for cracks, holes or leaks.

DON'T

The jerry cans presented in the picture are dirty and have no lid. Water should not be poured into a dirty container except to clean it. The water should also be poured directly into the container from a tap / pump and not through using a funnel, or there is a risk for the water to get contaminated.



Picture 10

Additional Resources

[Water, Sanitation and Hygiene Poster Set CAWST](#)
[Akvopedia Water Portal](#)

Non drinking water

Objectives:



- Water is available for cleaning & washing
- Avoiding using clean water for cleaning and washing if only a limited amount of clean water is available

Minimum Standards



- 2-8 litres/cubicle/day for toilet cleaning
- 3-5 litres/user/day for pour-flush toilets
- Anal washing/cleansing 1-2 litres/person/day (when applicable)

Water which is not to be used for drinking or cooking does not need to be fully potable or treated but using water which looks dirty is not appealing so some key aspects should be taken into account:

- If the water looks dirty, it can easily be poured through a cloth to clear some of the particles. Whilst this water will not be safe for drinking, it can still be used for cleaning and flushing toilets.
- This water should be collected and stored in different containers than those which are used for the collection and storage of water to be used for drinking and cooking. The containers should never be mixed. Where this does take place, the container should be thoroughly cleaned and disinfected before re-use, if its new use is for the collection and/or storage of clean water. Different containers should be clearly labelled as to their use.

Non-drinking water can be taken from the same sources which are used for drinking water, if sufficient quantities are available for all uses. However, where drinking water availability is limited, these safe options for drinking water should be prioritised for water for drinking. In this case, a local mapping of unimproved water sources by the School Management Committee can highlight other sources where water can be collected for cleaning and flushing.



Picture 11



Woman filtering water, Kenya, Dadaab by URC

Management of Water

Resources



Objectives:

- Water Resources are managed to ensure access to safe water at all times
- Avoiding using clean water for cleaning/washing if only a limited amount is available

Minimum Standards



- An operation and maintenance plan of the school's water system is in place with the School Management Committee (SMC), local authority or community water management committee (WMC)

Suitable management of water resources throughout their lifetime is key to ensuring functionality for a long period. Management of these resources will be dependent on a number of factors:

Who pays: If the water system is shared between the school and the community (or part of a larger system), it is likely that the WMC has an established system for payment of water fees (monthly payment per community household, individual payment per jerry can etc). It is vital that an agreement is reached with the SMC regarding any necessary payment by the school (to be included in school budgets). This may be either no payment necessary, or for the school to pay a weekly/monthly fee, or only to pay for any repairs or spare part necessary for the water point on their grounds. The payment system will need to be agreed before installation (refer to national guidelines when applicable). A full life cycle cost analysis should take place, to ensure that the total costs of the system throughout its lifetime (20-25 years) are understood and budgeted.

Who is managing them: In cases where the water is shared between the school and the community, it is essential that an agreement / MoU exists between the Water and the School Management Committees with regards to how the system is managed. A representative of the SMC should sit on the WMC, and clear guidelines should exist over payments, who is responsible for maintenance and how the system will operate. For example, if the water point is shared but is on the school grounds, the water point will not be accessible during school hours. National guidelines may exist for this and should be consulted. If the water system is for the school only, the SMC should ensure it has the resources to manage the operation and maintenance, including access to technical capacity and budget to pay for any operation and maintenance costs.



Managing Water - Having a sustainable management system also allows better monitoring of the usage and ensure no wastage (e.g. regulate withdrawals and use of water, monitor and maintain any leaks).

Additional Resources

Concern's [WASH Systems Strengthening Approach Guidance Note](#)



Picture 12

Hygiene

Objectives



- **Learners** acquire individual hygiene habits.
- **Girls** practice proper menstrual hygiene in a supportive school environment.
- **Techers** integrate hygiene practices appropriately in their class activities.
- The **school environment** enables learners to correctly practice daily hygiene activities.
- The **school community** work together to reinforce hygiene habits in school and at home.

Outline of the Section:

Handwashing		Page 14
1. Establishing Handwashing Stations		Page 14
A	B	C
Tippy Taps (p.15)	Self-contained bucket system (p.15)	Piped water tap (p.16)
2. Washing Hands with Soap		Page 17
A	B	
Ash (p.17)	Soap (p.17)	
3. Promoting Handwashing		Page 17
A	B	C
Essentials of Handwashing (p.18)	Promoting Handwashing (p.18)	Mainstreaming Handwashing (p.18)
Menstrual Hygiene Management		Page 19
A	B	C
Essentials of MHM (p.19)	Integrating MHM (p.19)	Mainstreaming MHM (p.20)

Handwashing



Picture 13

Objectives:



- The school is an enabling environment for handwashing practices, providing access to sufficient, qualitative handwashing facilities with collective and/or individual handwashing facilities with soap (or ashes) in strategic areas in the schools/learning centres (e.g. near eating areas, play areas and toilets).
- Teachers value handwashing with soap and consider handwashing promotion as part of their work with daily supervised group handwashing with soap for all children (when possible led by student leaders).
- Children value handwashing with soap and the practice of individual handwashing with soap is done during critical times.
- Regular supply of soap for handwashing.

Minimum Standards:



- 1 sink for 15 students or follow national regulations if lower ratio
- Individual handwashing facilities with soap in strategic areas
- 200 g soap per learner per year is enough for each learner to wash hands 2 to 3 times a day in school.
- Children wash their hands at school during critical times

1. Establishing Handwashing Stations:

Options



	Tippy Taps	Self-contained bucket system	Piped water taps
Best for Schools with: Water Access	Low water pressure No water access yet	Irregular or no water access Low water pressure	Regular water supply with good or consistent pressure
Labour	Water source Water brought from home Rainwater from the roof	Water source Rainwater from the roof Piped water	Water source Piped water system
Time for construction	Time of parents and teachers	Minimum wage for 1 day or community volunteer	Hiring plumbers/ specialised labourers
Durability	1 day	1 day if prefabricated	10 –14 days
Material	1– 2 years	5 – 8 years	5 – 8 years
Maintenance	Used water bottles (50cl or 1l) or plastic jug Wood or bamboo Nylon rope or string	PVC or Galvanized Iron pipe tap(s) Covered plastic container Wooden or metal legs	PVC or Galvanized Iron pipe Sand and gravel, Cement, Steel bars, Hollow blocks, Tiles, Taps
	Daily refilling of water bottles Cleaning of dirty bottles Replacement broken bottles Monitor cleanliness of bottles and replace accordingly	Daily water refilling Cleaning of plastic container De-clogging water outlets Replacement of valves and taps	Cleaning of facility Budget allocation for water supply Replacement of valves and taps

Warning

Ensure proper drainage. Maintain it periodically checking for leaks or clogs to avoid stagnant water or flooding which could cause health hazards. Without drainage system, wastewater may be drained into soak pits (holes filled with stones and sand) adjacent to the handwashing facilities. Costs can also be reduced by using plant boxes or flower beds.

Minimise Water Usage



Teach teachers, school personnel and children that water is only needed at the beginning to wet hands and at the end to rinse hands. Adapt the system to make it easy to close the water while children lather their hands. For example, use self-closing taps so they can't be left open (these taps are more expensive but much more durable). Also plan for individual handwashing stations so that only one tap can be open when needed.

Taflo self-closing tap





Option A

Tippy Taps

Best for schools with:


- No access to water, water from source or brought from home
- Limited budget and resources
- Limited access to material, markets or technical workers for mounting and dismounting or maintaining the facility



Picture 14



Reusing material The facilities can be made almost fully with natural or reused materials with wooden sticks and used water bottles, jugs or jerricans. Should goods be purchased, prioritise those that are biodegradable, can be reused or recycled easily.

- ✓ **Material** Y-shaped wooden poles and cross bars, water bottles (50cl or 1 litre) or plastic jug, rope or string, plants or rocks and sand for water drainage, nails to puncture holes, paint (optional for decoration)
- ✓ **Design**


Tippy Tap with bottles - Construct the frame with 2 Y-shaped wooden sticks and lay a cross bar horizontally across. Make holes on the top of the bottles (0.5cm to 1cm large holes for the water to flow). Tie the bottles with a rope on the top and bottom of the bottles, with the rope going around the cross bar. When not used, the bottles are straight up. To use, rotate the bottles face down for the water to flow.

Tippy taps with jug and foot pedal - Construct the frame with 2 Y-shaped wooden sticks and lay the cross bar horizontally across. Make holes on the top of the jugs and place the crossbar through the handle. Tie one end of a string to a stick and tie the other end to the neck of the jug (with enough length to go almost to the ground). Fill the jug and push the stick with the feet, the container will tip forward and you can wash your hands!

For both options: Attach the soap so it cannot be easily moved (either by puncturing a hole through the soap and passing a rope in or by placing soaps in a net or old tights and fixing it to the top bar). Make a hole in the ground filled with stones and sand or place some plants to stop puddles forming and water stagnating.
- ✓ **Location** Building facilities close to the classroom reduces the time to perform the group activity. Have facilities next to the bathrooms or play areas so children can practice handwashing easily at the key moments of the day. Proper roofing and safe footpaths to and from the facilities enable accessibility for all children, at all times and weather conditions.
- ✓ **Costs** About 3\$ for group facility with 8 bottles (material costs). Labour costs can be null if the activity is part of the curriculum and children support to make the facilities while taught about handwashing.
- ✓ **Maintenance** Daily refilling, cleaning and maintaining of bottles, replacement of broken bottles. Regular cleaning and maintenance schedule for the facilities.
- ✓ **Community Involvement** Community and SMCs involvement is the key for sustainability. The community is a great source of resources to build, enhance and sustain facilities. Engage stakeholders in the community from the beginning on the design and to clarify roles and responsibilities. The community can participate in the activity and can also support in providing some material to build the facilities



Option B

Self-contained bucket system

Best for schools with:

- Irregular or no water access or low water pressure
- Minimum budget and minimum access to material, markets or workmanship
- Opportunities for enhancement and connection to piped water



Picture 16

- ✓ **Material** PVC /Galvanized Iron pipe, Covered plastic container, Wooden or metal legs, taps
- ✓ **Design** One refillable container or bucket is connected to a valve and to a punched pipe for group handwashing (one additional valve can allow for individual handwashing). Keep children's age and height in mind to design the facility. A hole in the ground filled with stones and sand or plants will stop puddles forming and water stagnating. This can be replaced by a basin to evacuate the water (consider accessibility for children with disability when planning the design as they might not be able to get close with a basin).

✓ **Location**



Picture 17

Building facilities close to the classroom reduces the time to perform the group activity. Have facilities next to the bathrooms or play areas so children can practice handwashing easily at the key moments of the day. Proper roofing and safe footpaths to and from the facilities enable accessibility for all children, at all times and consider weather conditions. This facility can be accessed from both side and could therefore increase the number of students who can use it at once so it is to be considered when thinking of the location (e.g. placing it against a wall will prevent the access from one side).

✓ **Costs**

From 50\$ to 100\$ depending on the material and design to accommodate up to 15 students at once.

✓ **Maintenance**

Daily water refilling, cleaning of plastic container, de-clogging water outlets, replacing valves and taps. Regular cleaning and maintenance schedule for the facilities.

✓ **Community Involvement**

Community and SMCs involvement is the key for sustainability. The community is a great source of resources to build, enhance and sustain facilities. Engage stakeholders in the community from the beginning on the design and to clarify roles and responsibilities. Communities can participate and can also support in providing some material to build the facilities.

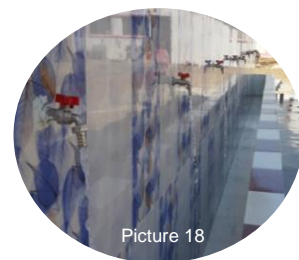


Option C

Piped water taps

Best for schools with:

- Regular and sustainable water supply with good or consistent pressure
- Budget for building and maintenance of facilities
- Access to markets, appropriate material and qualified workers or contractors.



Picture 18

✓ **Material**

PVC or Galvanized Iron pipe, Sand and gravel, Cement, Steel bars, Hollow blocks, Tiles, Taps

✓ **Design**

Concrete and tiled facility with PVC pipes and taps connected to piped water system and sewerage.

✓ **Location**

Building facilities close to the classroom reduces the time to perform the group activity. It is also important to have facilities next to the bathrooms or play areas so children can practice handwashing easily at the key moments of the day. Proper roofing and safe footpaths to and from the facilities enable accessibility for all children, at all times and weather conditions.

✓ **Costs**

Between 500\$ to 1,000\$ depending on the size of the facility, the material, the roofing etc.

✓ **Maintenance**

Cleaning of facility, Budget allocation for water supply (if applicable), Replacement of valves, taps, tiles

✓ **Community involvement**

Community and SMCs involvement is the key for sustainability. The community is a great source of resources to build, enhance and sustain facilities. Engage stakeholders in the community from the beginning on the design and to clarify roles and responsibilities. The SMCs will have to assign roles, budget and establish cleaning and maintenance plans.



Adapt to context and religion

The hand washing facilities can include a **footbath** used in some contexts for religious preparation. As appropriate, latrine's block (especially for girls) should also have a handwashing basin inside of the block or inside a privacy wall. A mirror in the block can also support in readjusting religious cover.

Additional Resources

[Details on material and design of all types of collective handwashing stations](#)

[Tips for improvement of group handwashing facilities' hardware](#)

[Scaling up Group Handwashing in Schools. Compendium of group washing facilities across the globe](#)

2. Washing Hands with Soap

In addition to the provision of the handwashing facilities itself, it is important to consider the necessary material and supplies to provide to ensure handwashing is efficient. The main element to make handwashing effective is the use of **soap**. Where soap is not available or commonly used, alternatives can be provided such as ash for washing and/or scrubbing

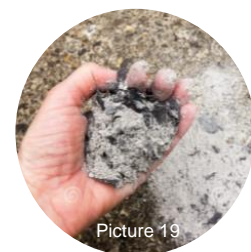


Option A Ash

Best for school with:

- Limited budget and resources
- Limited access to markets

Ashes can be used as temporary solutions in contexts where soap is too costly or not available. Ash is not as effective as soap to kill bacteria or germs but it is more effective than water alone. Like soap, ash is also not only cleansing but also a disinfecting agent (with alkaline) and can be used by rubbing away (through friction). The World Health Organization recommends hand washing with ash if soap is not available in emergencies, schools without access to soap and other difficult situations like post-emergencies.



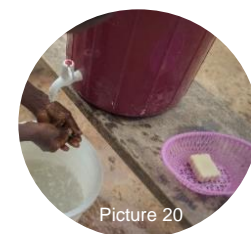
Picture 19



Option B Soap

Best for school with:

- Budget and resources to provide soap
 - Access to markets or local soap making groups
- Soap needs to be available at individual and group washing facilities.
 - Attaching soap to the washing facility by hanging it in a nylon stocking, fishnet or inside tights ensures that the soap stays in the facility, keeps it dry, and prevents it from being dropped during the handwashing activity.
 - A soap holder can also be fastened onto the facility. Make sure that the holder drains well.
 - It can also be kept in a room when not in use to prevent it from being stolen or exposed to the rain.



Picture 20

The soap can be procured either through the market or as part of a livelihood programme for soap making at community or district level. This ensures community involvement and livelihoods but the right ingredients need to be available

Additional Resources

[Practical Action Soap Making technical brief](#)
[Small-Scale Soapmaking – A Handbook](#)

3. Promoting Handwashing

The provision of hardware (facility and infrastructure) and consumables (soap) is in itself not sufficient to have a significant impact on the occurrence of diarrheal diseases and to ensure children and education personnel understand the importance of and practice handwashing as part of their routine. In addition to hardware, handwashing should be promoted (software) at school.

Main principles to promote handwashing at school:

- Ensure handwashing discussion and activities are **entertaining**. Continuously repeating “you should wash your hands with soap” is unlikely to work and children learn by playing!
- People should want to practise handwashing. It can be done by stressing that after it, we are smelling good and it’s a nice feeling. It should not be limited to health messaging but enforce that it’s about our own **care and dignity**.
- Consider **national programmes** and curriculum to identify whether promoting handwashing and hygiene is part of it. Engage with teachers on their role in promoting it. Make sure head teachers and SMCs are also involved and understand their responsibility. It can also be the opportunity to encourage using participative approaches for it.
- When the school have paid **cleaners**, they are an important resource for hygiene activities and should be involved in the activities. This category of workers often suffer from discrimination and giving them an active role in promoting handwashing on top of cleaning the facilities can help changing positively the perception of their work. The message is more efficient when it comes directly from those we want to convince. Ensure that **children themselves** are involved and active in designing, proposing messages, slogans, drawing posters for the school.
- All the visual support material (posters) should be displayed in **strategic places** so close to where hands need to be washed (playground, eating area, bathrooms) and in central places to be seen by as many people as possible.



Picture 21



Option A

Essentials of Handwashing

Best for schools with:

- Limited resources (human, financial, time) to promote handwashing/hygiene.

Teachers carry out **handwashing** with their classes daily during critical times. The activity can be organised per classroom. Depending on the number of pupils or classrooms, head teachers can support in organising the activity by groups to allow all learners to perform the activities. Doing the activity on a daily basis **creates a routine** and will therefore create habits among learners. **Songs and chants** can support the conduct of hygiene activities.

Organise a **discussion** around what causes diseases and how one can prevent catching diseases. It is good if children can have a notion of germs as “yucky little things invisible to the eyes”. This can be done by using pictures of germs, through **games** such as the handwashing snake ladder (see resources below) or with drawing competitions with reward for the handwashing posters to be displayed in the school, including “the best slogan” to convince people to wash their hands.



Picture 22



Option B

Promoting Handwashing

Best for schools:

- With some resources, willingness and time for Hygiene promotion activities
- Already carrying out Option A and want to go further into Handwashing Promotion

This option is in addition to Option A which include the essential basic activities to promote Handwashing.

Organise regular activities around germs, what causes diseases and how to prevent catching them, the role of handwashing. Additional activities can include

- The use of [Glo germs](#) products (See additional Resources) that “makes visible the invisible”. It shows that hands can be dirty even if they look clean, plus that only handwashing with soap can removed the “yucky invisible stuff”
- Display of fun handwashing promotional videos followed by discussions (example [here](#) or on the [WASH in School](#) website).



Picture 23



Option C

Mainstreaming Handwashing

Best for schools:

- Where Concern work closely with the Education Personnel and SMCs
- Who can/want to allocate more resources and time to promote Handwashing

This option is in addition to Option A and B and would secure the best chances of obtaining effective adoption of handwashing practices in the school.

WASH themes are cross-cutting, and WASH lessons can be independent lessons dedicated to the topic or woven into the usual curriculum (math, science, reading, language). Teachers are trained on the main elements of Hand washing and Hygiene Promotion and include examples throughout the curricula.

Additional Resources

[Handwashing germs ladder game](#)[Glo germs](#)

[Fun Video Promoting Handwashing](#)

[Additional Hygiene Promotion Videos for Children](#)



Picture 24

Menstrual Hygiene Management



Picture 25

Objectives:



- Women and girls menstruating have access to products and facilities that support their dignity and well-being.
- Girls and boys have knowledge and understanding about Menstruation and Menstrual Hygiene.

Minimum Standards:



- Material is available: absorbent material (4 m² per year), disposable pads (15 per month) or reusable pads or underwear (six per year), as preferred by women and girls
- Facilities have a discrete disposal mechanism a container with a lid, with collection and disposal system and there is information on proper disposal of sanitary pads in the girl's toilet.
- Extra soap is available in the washroom (250 grams per month)
- IEC materials on menstrual hygiene management for teachers and learners are available.

Menstruation Hygiene Management (MHM) focuses on practical strategies for coping with monthly periods. It refers to ways women keep clean and healthy during menstruation and how they acquire, use and dispose of blood-absorbing materials.

Some key principles to consider to carry out MHM at school:

- Understand practices, norms and myths concerning menstruation in each context and adapt supplies and facilities.
- Consult women, girls on the design, siting and management of facilities (toilets, cleaning, disposal and water supply) and on the most adapted materials (reusable or disposable sanitary pads, menstruation underwear etc)
- Access to supplies in discrete locations to ensure dignity and reduce stigma. Explain usage for unfamiliar items.



Option A

Essentials of MHM

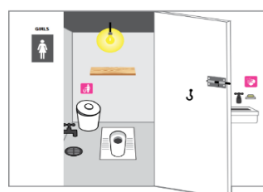
Best for schools with:

- Limited resources (human, financial, time)
- Limited engagement with school personnel and teachers



Picture 26

A few basic infrastructure improvements can be introduced to existing school facilities or integrated into the development or rehabilitation of new facilities. Adopting these MHM actions at the onset may prevent difficult or costly modifications later and enable girls' immediate access to school. Ensure that sanitation facilities, especially toilets, are helpful for menstruating girls and in line with standards such as:



- Access to female friendly and safe toilets: locks inside the cubicles, full-height partitions without holes, adequate space (1 x 1.2 meters) for girls to move freely, privacy walls, adequate lighting, low mirrors for girls and women to verify possible stains on their cloth.
- A separate, well-located toilet for use by female teachers
- A water source for cleaning with soap in at least one latrine
- Appropriate bin containers with lids for the disposal of menstrual materials. If appropriate, wrapping materials and signs on how to dispose of menstrual materials.

Consult with women and girls on the design of toilets to provide space, access to water for washing, and if appropriate laundry areas. For more information, see MHM Checklist in Additional resources.

Activities can also be carried out for special events like Menstrual Hygiene Day on the 28th of May to raise general awareness and provide basic information on menstruation, at school and at community level.

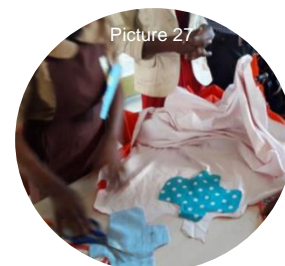


Option B

Integrating MHM

Best for schools with:

- Additional resources (human, time) and budget
- Engagement with school personnel and teachers
- Already implementing Option A and want to go further



Picture 27

This option is in addition to Option A which include the essential basic activities for MHM.

Schools should have an emergency stock of appropriate menstrual supplies available for girls who are unprepared for a menstrual period during the school day. The needs assessment will inform the types of materials that girls prefer to use (e.g.,

disposable pads, reusable pads, cloth), if they have underwear, and how they dispose or wash used materials. Key considerations when preparing materials:

- When consulting girls about their menstrual materials preferences (including underwear), it is useful to bring samples of the various options available. This exercise should be completed prior to procuring supplies in larger quantities.
- Inventory lists should be maintained to ensure emergency menstrual materials are stocked and used appropriately.



Choose reusable when appropriate - Sanitary pads can be disposable or reusable/ washable. Reusable pads generate less waste and can be sourced locally using damaged cloth or natural local material. When applicable and chosen by women and girls, it is therefore the preferred option. If disposable pads are more appropriate, ensure they are disposed of safely (e.g. not in waterways or burned in the open or illegal dumpsites) and opt for locally made or natural materials when available.

Schools can be ideal settings for providing menstrual and reproductive health education. If MHM related content does not already exist in a given education curricula, basic lesson plans on menstruation and puberty can be added in separate sessions. Content can be adapted from existing MHM educational resources available. **Key considerations:**

- When appropriate, MHM education should be organized for groups of all-girl students led by female teachers (or hygiene promoters or health clinic staff).
- Sessions should also be organised for boys to learn about menstruation and sexual and reproductive health.
- It should not be assumed that an atmosphere of comfort and trust exists between girls and female teachers, or that girls will be comfortable receiving MHM guidance from them or that teachers are comfortable teaching on this topic.
- Prior to delivering MHM education, make sure to gain understanding of cultural taboos surrounding menstruation and how these may impact female students and their MHM. These findings should be integrated into lesson plans.

Working around menstruation



Ensure activities are designed for **boys and girls** to ensure boys also receive information to reduce teasing around menstruation. Both should be included to reduce stigma and increase support.

Activities should also be designed to **address harmful norms and attitudes** from men (teachers) and boys. Some cultural norms can be harmful, such as perceiving girls and women to be unsuitable for certain activities, which might lead to discrimination. We therefore aim at transforming these attitudes.

When no female teachers are available, appropriate **women in the community** can be identified. These could be Community Health Workers who can visit the school and provide MHM guidance. This also allow to build relationships for students be more comfortable approaching the Health centre later for sexual reproductive health or contraception.

Sensitize **male administrators** and teachers so they are aware of the issue and their responsibilities and role in supporting girls. They can help creating a safer and more enabling environment even if they do not teach about it.



Option C

Mainstreaming MHM

Best for schools with:

- Resources (human, time) and budget
- Engagement with school personnel, teachers and the wider community

This option is in addition to Option A and B which include the essential activities and integration of MHM. This options give examples of activities which can be added.

- Ensure that MHM related content is included within the education curricula (advocate to the different Authorities if not).
- Encourage teachers to adopt menstrual hygiene management education as part of standard lessons.
- Train teachers and Education personnel from both gender to support girls' menstrual hygiene practices.
- Involve the school into gender transformative activities to ensure boys and girls work together to reduce stigma.
- Rest space and/or changing room can be allocated in the school for girls to change or to rest and recover from menstrual pains (if not suitable as changing room, assign a cubicle in the toilet). It can be an existing space in the school (school clinic or appropriate room) and it must be secure, private, and comfortable.
- Involve communities in the discussion and work with traditional and religious leaders into increased support and visibility with clear objectives (i.e change in attitudes or changes on some harmful beliefs).

Additional Resources

[WASH and Gender Technical Brief](#) and [MHM/Sanitation in Schools Checklist](#)

[Working with schools on menstrual hygiene](#) (Mod 5 p.122)

[Menstruation hygiene management for schoolgirls](#)

[A toolkit for integrating MHM into humanitarian response](#)

[MHM Operational Guidelines](#) (Save the Children)

[GrowUp Smart Facilitator Manuals](#) (Rwanda) and [Menstrual Hygiene Management at School Toolkit](#) (Zambia) and

[My Safety, My Wellbeing](#) (IRC)



Picture 28




Sanitation

Objectives



- **Learners** know how to use the latrines correctly and clean the latrines and other sanitation facilities after use, keeping a learning environment that enables them to be safe and comfortable in school.
- **Learners' well-being** is ensured through well-maintained facilities to respond to basic sanitation requirements, and practices are in place to reduce threats from life-threatening vector- and water-borne diseases.
- **All teachers** integrate the value and practices on sanitation in their class activities. They initiate action amongst school stakeholders for the maintenance and operation of sanitation facilities.
- **The school community** work together to address sanitation issues; take responsibility for the operation and maintenance of school sanitation facilities; and promote sanitation practices beyond school environment.

Outline of the Section

Latrines / Toilets		Page 22
1. Building Latrines		Page 22
A 	B 	C 
Pit Latrines (p.24)	VIP Latrines (p.24)	Flush Latrines (p.25)
2. Rehabilitation and Maintenance of Latrines		Page 27
Solid Waste Management		Page 28

A 
Essentials of Waste Management
 (p.28)

B 
3 Rs of Waste Management
 (p.29)

C 
Waste Management and Environment Protection
 (p.29)

Latrines / Toilets

The words “latrine” and “toilet” are used here interchangeably. A “toilet” is the place where someone will go to defecate or urinate (it is the sanitation facility). A “latrine” is a simple form of toilet, which could be, for example, a simple pit latrine or VIP latrine (see below). Whether the word “toilet” or “latrine” is used, the meaning is the same – a safe place where both students and teachers can go privately to defecate and/or urinate.



Picture 29

Objective:



- Schools shall have adequate, clean, functional, safe, and accessible toilet facilities for both pupils and staff, which meet the pupil-to-toilet and staff-to-toilet ratio.
- The toilets and other WASH facilities are kept clean and maintained (including repairs, cleaning and desludging when applicable).

Minimum Standards:



- 1 toilet for every 25 girls, with a minimum of 4 cubicles, including one accessible cubicle.
- 1 toilet for every 50 boys, with a minimum of 4 cubicles, including one accessible cubicle and 1 urinal (or 1m of urinal wall) for every 50 boys.
- 1 toilet for every 10 male members of staff and 1 toilet for every 8 female members of staff, with a minimum of 2 toilets (one for men and one for women). Toilets for staff are separate from those for pupils. Accessible toilets are provided as needed.
- Toilets are secure, private, with door and lock, lighting, ventilation and rubbish bins.
- There is a handwashing facility with water and soap available within or near the toilets and a facility for washing in female toilets for MHM.
- Toilets are located within view of school building and people.



Ratio gender segregated toilets

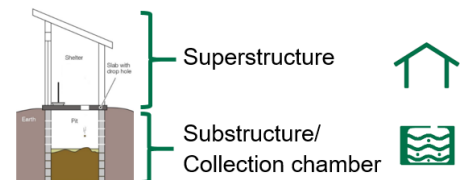
The UNICEF standard requires gender-segregated toilets (male and female toilets) with a specified ratio. The higher ratio of toilets to girls is due to their specific needs during menstruation and their duration of use.

1. Building Toilets

Toilets that are adequate, functional, secured and accessible to all learners will encourage their use. Having usable toilets is not just about health, but also about dignity, comfort and basic rights. Toilets need to be designed to be **child friendly** and easy to use for all ages, ensuring children are consulted in the process.

A toilet will generally be made of up two aspects:

- The superstructure: that part above ground which the pupil/teacher will use).
- The sub-structure / collection chamber: that part usually underground which collects the faecal waste.



Sub-Structure / Collection Chamber

It is most often the excavation in the ground. This will often be a latrine pit directly under the toilet itself. However, it could also be a latrine pit to one side of the toilet, a septic tank to one side, a chamber above ground, or a large centralised pit / septic tank. Likewise, the waste may be carried away by pipes to be treated offsite.

The choice will depend on aspects such as available budget, local practices, local ground conditions, methods of emptying, availability of space, etc. However, they would all follow **some basic principles**:

- **Appropriate size and shape:**

The collection chamber should be designed to have a long lifespan (e.g. five years). If a simple pit underneath the latrine block is used, a circular pit is ideal as the walls are stronger (but only suitable for one or two-block latrines). Rectangular pits will need to be wide and long enough for the latrine block to fit on top of it. The depth should be carefully considered: deep enough to ensure long lifespan (can be as deep as 8m) but not so deep that the excavation is dangerous.

Where the chamber is a septic tank, this should be designed using specialist advice to ensure that the dimensions, features and specifications are suitable to provide some level of treatment.

- **Safe Construction**

Aspects to take into account to ensure that the pit/tank is constructed safely and is safe to use (expert advice should always be sought upon construction):

- If it is a latrine pit, it should be lined with bricks for at least the first 40cm from the surface.
- If the soil in the pit can collapse easily (e.g. sandy soil), all of the latrine pit walls should be lined (e.g. with bricks), to ensure that no part of the structure will collapse (see picture).
- Brick walls in the middle of the pit may also be necessary to support the latrine slab.
- A septic tank will be fully lined with bricks / concrete and as such the excavation and use of bricks and concrete will be to be undertaken safely.



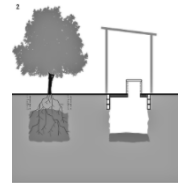
Picture 30


Warning Concern's [Health and Safety standards](#) should be followed when excavating pits. Anyone within the excavation should be wearing suitable equipment (e.g. hardhats) and have a quick way to escape, should the pit walls collapse, and all pits must be protected with barriers to ensure that no-one can fall in.

• **Emptying / Decommissioning**

At the design phase, a plan should be discussed as to what will happen to the latrine pit / septic tank once full. If emptying (also known as [desludging](#)) is possible locally, a suitably-sized access hatch covered with a sealed reinforced concrete manhole cover will be necessary (removable during desludging). Concern strongly suggests that desludging is undertaken mechanically and not manually due to the serious health risks on those undertaking it. Any pits that will be mechanically emptied will need to be lined, even in areas with stable soils. The treatment of waste from desludging should meet local necessary standards, and should never be emptied into a river, lake or other body of water.

If desludging (emptying) is not a suitable option, the pit should have a suitable design life so it can be decommissioned (closed and protected) once it is full (the waste has reached a point 0.5m below ground level or below the slab). Decommissioning requires expert advice. In general, once the pit is full, a thin layer of chlorinated lime should be sprinkled into the pit and then filled with soil or sand for at least 0.5m. After a week, the slab can be removed (and thoroughly disinfected). The closed pit should then be compacted and can be marked by planting a tree (which will grow vigorously on the nutrient-rich pit). The full pit poses no immediate health risk and its contents will degrade naturally over time.. This requires space to dig a new pit.



 **Protect Groundwater** - To avoid contamination of local groundwater, all latrines should be at least 30m from any water source (e.g. borehole), and the bottom of the pit must be at least 1.5m above the water table. Where constructing a latrine in an area prone to flooding, or where the water table is high, a fully-closed and raised pit may need to be constructed – expert advice should be sought in such a case.



Superstructure

In order to separate the faecal waste from the users (where the pit is directly underneath the superstructure), it is likely that a concrete slab will be used. This slab should be big enough to cover the whole pit, be made of concrete which is sufficiently reinforced and allowed to cure for at least 7 days, and be well-fabricated to ensure easy cleaning.

Warning Where the facility uses a slab with an open hole, remember that children are small and the smallest children could easily fall into the pit through the hole. Always design the hole to be an appropriate size so that children do not feel scared about falling down.

Options



Latrines	Basic block latrines	Ventilated Improved Pit (VIP) Latrines	Flush / Pour-flush latrines
Availability of water	Small amount of water required for regular cleaning. Bucket can be used for anal cleansing if appropriate	Small amount of water required for regular cleaning. Bucket can be used for anal cleansing if appropriate	Small amount of water required for regular cleaning. Some amount of non-drinking water needed to flush
Labour	Experienced labourers / contractor. Professionals for desludging	Experienced labourers / contractor. Professionals for desludging	Experienced labourers / contractor. Professionals for desludging
Time for construction	Depends on the size of latrine pit, if a septic tank is used etc.	Depends on the size of latrine pit, if a septic tank is used etc.	Depends on the size of latrine pit, if a septic tank is used etc.
Cost	\$400-1,000 per latrine stance (1,600-4,000\$ block 4 latrines), plus extra costs if the pit needs to be lined. Costs for regular maintenance, and desludging,	\$400-1,000 per latrine stance (1,600-4,000\$ block 4 latrines), plus extra costs if the pit needs to be lined. Costs for regular maintenance, and desludging	\$400-1,000 per latrine stance (1,600-4,000 block 4 latrines) If included \$500-1,000 per septic tank. Costs for regular maintenance, and desludging
Durability	Many years if pits lined, with superstructure from bricks and mortar with a solid roof. If built out of metal sheeting/ wood, materials to replace after a few years.		
Material	Pit lining (brick, rot-resistant timber, bamboo, concrete or stones), if necessary. Superstructure (bricks/blocks, concrete, wood, plastic, metal sheeting)	Pit lining (brick, rot-resistant timber, bamboo, concrete or stones), if necessary. Superstructure (bricks/blocks, concrete, wood, plastic, metal sheeting) Ventilation pipe (PVC)	Pit lining (brick, rot-resistant timber, bamboo, concrete, stones), if necessary. Superstructure (bricks/blocks, concrete, wood. plastic, metal sheeting) Collection pan/ seat (porcelain)
Type of soil	Where the soil is sandy or unstable, or where the pit is likely to be mechanically desludged, the walls will need to be fully lined. Where the soil is always stable (even in the rainy season), the pit will need lining down to approximately 40cm below ground level		
Operation & Maintenance	Cleaning, general maintenance Desludging	Cleaning, general maintenance, Desludging	Cleaning, general maintenance Filling water buckets Desludging

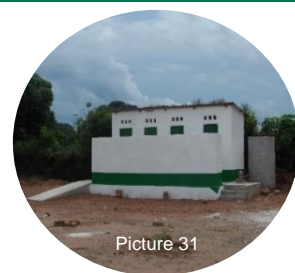


Option A

Block of pit latrines

Best for schools with:

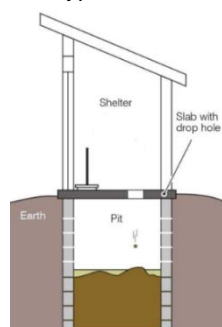
- Limited access to water
- Limited resources, budget and access to materials



Picture 31

✓ **Material** The pit lining materials, where necessary, will include brick, rot-resistant timber, bamboo, concrete or stones. The slab should be made of reinforced concrete. The superstructure should be made out of bricks/blocks and concrete, but could also be made out of wood, plastic or metal sheeting.

✓ **Design** As mentioned in the “Sub-Structure” section, pits should be dug of a suitable size (depending on the soil, type and number of children or staff who will use the latrine). These could often be 5m deep or more. Care should be taken when digging the pits, and all necessary precautions should be taken to avoid injury due to the soil around the pit collapsing; or someone being able to fall inside the pit.



Depending on the soil type, brick walls with concrete foundations may want to be used to surround the pit, and make sure it does not collapse. Advice should be taken as to the necessity of this, as well as to the necessity of support walls in the middle of the pit.

A reinforced concrete slab would then be placed covering the pit, with defecation holes included.

On the slab the latrine superstructure would be built – to ensure longevity, this would be out of bricks/blocks, covered with cement, with concrete columns included as necessary. Wood, plastic or metal sheeting are also suitable, but less durable, options. A suitable roof (normally made of iron sheeting) as well as a door with locks should be included.

✓ **Location** Close to the school but always at least 30m from a groundwater source. Where the water table is high, there should be at least 1.5m between the bottom of the pit and the highest point of the water table.

✓ **Costs** Costs can vary massively, but this could be anything from USD400-1,000 per latrine stance (so, for example, USD 1,600-4,000 per block of 4 latrines). Costs for regular maintenance, as well as desludging, should also be taken into account.

✓ **Operation & Maintenance** The inside and outside of the latrines should be cleaned on a daily basis to ensure usage by pupils and staff in sanitary conditions (with cleaning materials provided). Minor repairs may also be required to the superstructure or slab from time to time.

When the latrine pit is nearly full, desludging will need to take place to safely empty the pit and deposit the faecal sludge in a safe treatment location. A manhole should be provided at the back of the structure to allow this. This should be done by trained professionals as it is a very risky. Where this is not an option, the latrine will need to be decommissioned. Monitoring of the level of sludge within the pit / septic tank should be done on a regular basis.

✓ **Community Involvement** The design of the latrine should be discussed with the community beforehand – it should reflect local practices (e.g. whether the community sits or squats, which direction it faces, etc.). The community can support with the non-skilled labour required for construction/installation, as well as cleaning of the area around the taps. However, skilled labour, which may be available within the community, will be required for certain parts of the construction/installation.

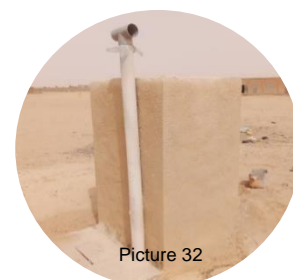


Option B

Ventilated Improved Pit (VIP) latrines

Best for schools with:

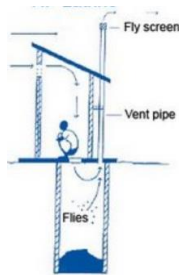
- Limited access to water
- Limited resources, some access to market and material



Picture 32

✓ **Material** The materials are the same as for Option A with the addition of a ventilation pipe (normally of PVC).

✓ **Design**



The design of a Ventilated Improved Pit (VIP) latrine is very similar to a standard pit latrine. The only design difference is the ventilation. A straight pipe (normally of PVC) of at least 11cm diameter, and reaching more than 30cm above the highest point of the latrine, is included at the back of the latrine. The pipe is covered over with a fly screen. The defecation hole will then either need to be covered, or left open if the inside of the latrine is dark. The pipe can also be painted black. In ideal conditions, this means that the air current will travel up the pipe rather than through the defecation hole, which means that the latrine can have less smells. Flies inside the pit will also be drawn to the natural light from the pipe and will enter it rather than the latrine.

✓ **Location**

Close to the school but always at least 30m from a groundwater source. Where the water table is high, there should be at least 1.5m between the bottom of the pit and the highest point of the water table.

✓ **Costs**

Similar to Option A, with the additional cost of the ventilation pipe.

✓ **Operation & Maintenance**

The inside and outside of the latrines should be cleaned on a daily basis to ensure usage by pupils and staff in sanitary conditions (with cleaning materials provided). Minor repairs may also be required to the superstructure or slab from time to time.

When the latrine pit is nearly full, desludging will need to take place to safely empty the pit and deposit the faecal sludge in a safe treatment locations. A manhole should be provided at the back of the structure to allow this. This should be done by trained professionals as it is a very risky. Monitoring of the level of sludge within the pit / septic tank should be done on a regular basis.

✓ **Community Involvement**

The design of the latrine should be discussed with the community beforehand – it should reflect local practices (e.g. whether the community sits of squats, which direction it faces, etc.).

The community can support with the non-skilled labour required for construction/installation, as well as cleaning of the area around the taps. However, skilled labour, which may be available within the community, will be required for certain parts of the construction/installation.



Option C

Flush/Pour-flush latrines:



Best for schools where:

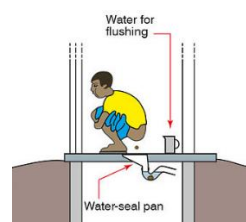
- Water is readily available
- Anal cleansing is normally undertaken using water (i.e. washers rather than wipers)
- More resources are available

✓ **Material**

For a simple flush/pour-flush latrine, the materials are nearly the same as for a simple latrine, except for the addition of a collection pan – normally made out of porcelain – or a seat

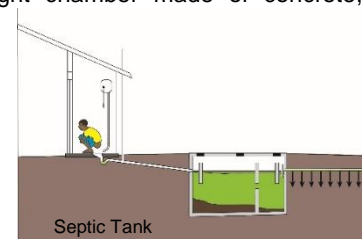
Where a septic tank is included, additional materials will be required in the form of concrete, iron bars, bricks/blocks, pipes and cement.

✓ **Design**



The design of a pour-flush latrine can be very similar to a standard pit latrine (option A). However, instead of a defecation hole, a collection pan is used which acts as a water trap. That means that the latrine should not have flies and should not smell. A ventilation pipe is thus not needed.

To improve the design even further, a septic tank can be included in the design. A septic tank is a watertight chamber made of concrete, fibreglass, PVC or plastic. At the end of the pipe from the flush/pour-flush latrine, the septic tanks will consist of two chambers, separated by a wall, into which the wastewater can settle. Access covers should be included to allow access for maintenance and desludging. At the other end of the septic tank, an outlet pipe can connect to a small underground soakaway, or perforated pipe, from where the remaining wastewater can safely percolate into the ground.



✓ **Location**

Close to the school but always at least 30m from a groundwater source. Where the water table is high, there should be at least 1.5m between the bottom of the pit and the highest point of the water table.

✓ **Costs**

For a simple flush/pour-flush latrine - costs are very similar to the standard latrine, with the additional cost of the collection pan. Where a septic tank is included, costs will be additional – in the region of USD500-1,000 per septic tank.

✓ **Operation & Maintenance**

The inside and outside of the latrines should be cleaned on a daily basis to ensure usage by pupils and staff in sanitary conditions (with cleaning materials provided). Minor repairs may also be required to the superstructure or slab from time to time.

When the latrine pit / septic tank is nearly full, desludging will need to take place to safely empty the pit and deposit the faecal sludge in a safe treatment locations. A manhole should be provided at the back of the structure to allow this. This should be done by trained professionals as it is a very risky. Monitoring of the level of sludge within the pit / septic tank should be done on a regular basis.

✓ **Community Involvement**

The design of the latrine should be discussed with the community beforehand – it should reflect local practices (e.g. whether the community sits or squats, which direction it faces, etc.)

The community can support with the non-skilled labour required for construction/installation, as well as cleaning of the area around the taps. However, skilled labour, which may be available within the community, will be required for certain parts of the construction/installation.

Warning In order to ensure privacy for all children and staff, all doors should have locks on the inside which can be used by children of all ages.

Additional Resources:

[Sanitation for Primary Schools in Africa](#) (latrine designs)

[Female-friendly public and community toilets: a guide for planners and decision makers](#)

[WASH Standards for Schools in Low-cost Settings](#)

[Pour-flush Latrines](#)

[Compendium of Sanitation Systems and Technologies](#)

[Akvopedia Sanitation Portal](#)



Accessible latrines

Ensure at least one latrine per gender is accessible for all types of disabilities or limited mobility. Children, especially those with disabilities and special needs, should be consulted with regards to their access to the toilet facilities but some features may include:

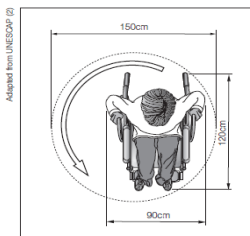


Figure 5.2: Space allowance for wheelchair users.

- Accessible routes to the latrine facility from the learning environment– e.g. smooth concrete paths
- Handles on the interior walls
- Ramps and railings leading to the toilet entrance
- Option for sitting toilet or provision of assistive devices for children with disabilities (such as toilet chairs).
- Enough space and entrances wide enough for wheelchairs to access
- Easy grip locks and flush systems



Minimum standards for accessible latrines:

- Ramps to enter facilities should be no steeper than 1:12 – 1:15
- Doors should be wide enough to allow a wheelchair user to be able to enter and wide enough inside to be able to turn the wheelchair round completely
- Handholds should be placed in all relevant locations, such as on the door to enable it to be closed; and around the walls for the user to hold on when using the latrine.
- Locks should be at a suitable height and accessible for all.



Additional Resources

[Water and sanitation for disabled people and other vulnerable groups: Designing services to improve accessibility](#)

[WASH Disability Inclusion Practices](#) (UNICEF)

[Compendium of accessible WASH technologies](#)

2. Rehabilitation and Maintenance of Latrines

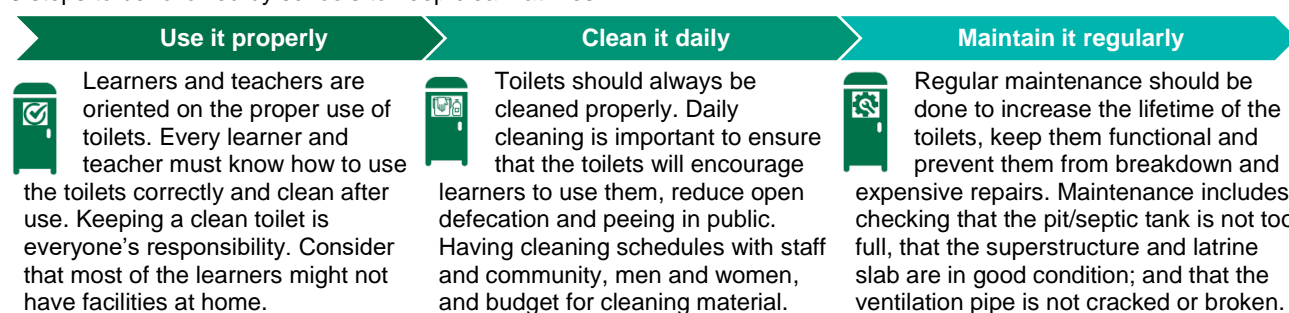
Rehabilitation of latrines

Schools may already have existing toilets that are currently not used, but could be used following maintenance and/or rehabilitation. Rehabilitation works on existing facilities may include the following:

- **Emptying of pits:** As mentioned above, the emptying of existing pits, also known as desludging, should be undertaken where the superstructure is still usable. Refer to the section above for advice and warnings on desludging.
- **Basic maintenance:** The toilet may need some simple maintenance which hasn't been undertaken by the school. This could include cleaning of faecal material or general waste, simple repairs of walls, doors and roofs, etc. Whilst Concern can undertake this work where it is disrupting use of the toilets by pupils and staff, it should be accompanied by discussions with the School Management Committee on the need for maintenance by the school itself – either through staff, pupils or the community or through the employment of a dedicated cleaner, should budgets allow.
- **Detailed rehabilitation:** It may be necessary for the toilet to be fully rehabilitated. This could include full replacement of walls and roofs, replacement of all or part of the slab, collection pan or seat, or demolition of the existing structure and rebuilding it. Where it is apparent from the needs assessment that this has to take place, it should be considered as to whether it is more viable to build a new facility in another location (space permitting) – for example, if the pit cannot be desludged, or if rehabilitation would be too difficult.

Maintenance of Latrines

3 steps to be followed by schools to keep clean latrines:



- **Using toilets:** Children might not have toilets or the same facilities at home so schools should consider making an introduction to the facilities, ensuring the children are not scared of the hole and understand what is underneath it. Games can be used to demonstrate the correct use of the toilets as well as what can and can't be thrown in it. Children should be introduced to anal cleansing materials, how to use them and how to dispose of them. Users should be consulted on the most culturally appropriate materials and the preferred option should be provided (water, toilet paper or other material).



- **Cleaning toilets:** The school has to have a system for cleaning of facilities. Ensure that both men and women are assigned for cleaning with age appropriate participation of learners. Resources and materials for cleaning need to be available as well as protective equipment to dispose of material such as used sanitary pads. Schedules for cleaning also need to be in place with clear persons responsible and monitoring. Learners can participate in the cleaning with **small age-appropriate tasks**, organised as a form of learning (valuing toilet cleanliness, taking care of facilities, importance of a functional toilet). The teacher should support them and show cleaning techniques. When involving children, each class should contribute to the cleanliness of the facilities with small age-appropriate tasks (done regularly so there is less to be done). The activities should be fun for learners (boys and girls) and the community.



Cleaning - It is very important that school is not an environment that reinforces rigid gender norms where only girls and women take responsibility for tasks such as cleaning. It should be ensured that all school personnel from both genders are involved and participate. Similarly, if children support in cleaning, boys and girls should share all tasks (for example helping in their own cubicles). If there is a cleaner, ensure the person is involved in hygiene promotion activities to value and show the importance of the work.



Cleaning Safety - Cleaners should wear protection. Many cleaning agents pose health risks if used improperly. Ensure they are kept out of reach of children and there is orientation on the proper use of cleaning materials and safety precautions. Materials such as bleach or chlorine should ONLY be handled by adults, and with appropriate protection.

- **Maintaining toilets:** Schools should ensure simple tasks like refilling water for cleaning and/or flushing or check-ups are performed regularly. Daily check-ups should be done to ensure cleaning quality and raise the awareness of the school community to have clean WASH facilities. Encourage it to be included in SMCs discussions to consider small repairs and act immediately (for example, damaged roof or walls). For heavy repairs and problems, which school resources could not cover, the school needs to cooperate with the parents, community or district officials, professionals and partner agencies. Verify that proper documentation is available to ensure that responsibilities within the school community are defined and that resources for cleaning and maintenance are available.



Solid Waste Management



Picture 37

Objective:



- Appropriate solid waste management system in place in order to prevent accumulation and inappropriate disposal causing safety hazards, severe damage to the environment, and public health risks.
- Maintain cleanliness and safety within and in the immediate vicinity of school premises through school-based solid waste management.
- Reduce, Reuse, Recycle (3Rs) where possible

Minimum Standards:



- Bins are available in all key locations and are emptied regularly.
- Solid waste at school is handled and disposed of safely.
- The environment is free from solid waste with no inappropriate disposal.

Schools create waste on a day-to-day basis, from food to used paper. Implementing a system for waste management requires some resources and time but it is essential to have safe and clean learning environment. Schools can also help in reducing and recycling waste and educating young people about pollution and its impact on the environment.

Types of waste a school produces:

- Paper from textbooks, workbooks
- Packaging: food packaging, new supplies packaging
- Food: food waste including inedible food (bones, fruit peel)
- Sanitary waste, menstrual pads
- Plastic: bottles, water bags
- Stationary items: broken pencils, scissors



Prioritise environmentally sustainable options

The Option A gives the most accessible option for waste management but burying waste with no plans to evacuate it should not be prioritised.

All pits and incinerators should be built to existing national and international standards and be safely operated, maintained and decommissioned.



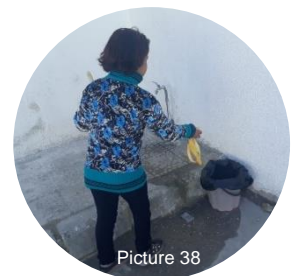
Option A

Essentials of Waste Management

Best for schools with:

- Limited resources (human, financial, time) to manage waste.

Ensure that **bins** are available in the key areas of the school (classrooms, playground, toilets etc). These bins should be a convenient and adequate size and have a lid so they can be covered (especially for bins where food is being thrown). The bins can be small and made of informal materials such as buckets. This will allow for waste not to be thrown inadequately on or around the school premises.



Picture 38

Once the bins are full or start to smell, they should be emptied. There are different options on how to dispose of the waste once the bins are full:

- **Collection system:** In communities or urban areas, there might be waste collection system, either at the school itself or from a designated collection point. In these cases, the waste can be packed into bin bags and brought for collection.
- **Incinerators:** Some infrastructure near the schools could have incinerators (health centres for example). In these cases, the waste can be brought to this designated place after agreement to be properly incinerated without too many risks to the health and the environment.
- **Designated landfill** around the school. In some places, there could be a designated official place to dispose of waste into a landfill. After agreement with the authorities and the community, the school could use it to bring the waste.



Picture 39

If none of the above options are available, schools can dispose of the waste on-site and create a **refuse pit** to bury the waste. A refuse pit is a hole dug in the ground to bury the waste. Burying is a temporary solution for schools where none of the options above is possible. This pit should be established with proper precautions to prevent accidents and minimize foul odours, pests, and damage to the environment. The pit should be located in an open space away from the school buildings and areas where students play. The pit should also be at least 30 metres away from a ground water source and not within 1.5m of any water table. The dimension of the pit will depend on the space available, but should at least be 1 metre deep. The hole should be dug and surrounded by a small ditch around to avoid rainwater flowing into it. The site

should be fenced and labelled with warning signs. Every time waste is dumped into it, a layer of soil should be added to contain the waste from wind, birds and vermin. Once full, the refuse pit can be covered by soil and a new pit should then be dug.

Ideally, sanitary and organic waste such as food would not be thrown into the refuse pit as this would attract vermin and birds. The school should discuss with a nearest health post/centre about using any incinerator / hazardous waste pit which they might operate. Where this waste must be buried in the pit, it should always be fully covered with a layer of soil.

Warning

Waste should not be burned in the open. This is a practice often observed but burning of waste in the open air without a proper incinerator can have serious consequences for the health of people around and for the environment. Burning waste releases toxic emissions posing serious risks to various diseases.



Option B

3Rs of Waste Management

Best for schools with:

- Some resources, willingness and time for Waste Management activities
- Wishes to look at more environmentally friendly options to manage waste and to introduce concepts related to the protection of the environment to students.

This option offers a more environmentally friendly approach to Waste management than Option A and should be prioritised when possible.

Reduce, Reuse, Recycle are known as the **3Rs** of Waste:

- **Reduce** means to minimise the amount of waste we create. It can be for example trying to avoid buying water in plastic bags if there are other options, prioritising reusable sanitary pads instead of disposable ones if it is appropriate, or using pencils instead of pens or markers. It is also about encouraging children to not create waste. Less waste created is less waste to have to dispose of!
- **Reuse** means using items as much as possible. For example plastic bottles can be used by the children or the school to store water as long as they are clean and not damaged.
- **Recycle** means putting an item to a new use instead of throwing it away. This can be for example using fabrics from old cloth to clean or make pads when appropriate. It can also be about creating [Eco bricks](#), which are made of plastic bottles filled with various plastic (wrapping or old pens for example) and can be used for construction (see picture as an example of water tank built with plastic bottles).



In order to better reuse and recycle, it is essential to **sort out the waste** and to separate the different types of waste, for example organic waste (food, leaves), waste which can be recycled (broken bottle) or repaired (broken generator) etc.

Organic waste can then be used for **composting**. A composting facility is one of the inexpensive ways of using compostable or biodegradable waste through the natural decomposing action of micro-organism from soil and enzymes. Composting enables the school to produce soil conditioners and even fertilizers for plants and gardens.



Option C

Waste Management and Environment Protection

Best for schools who:

- Want to take a more holistic approach to waste management with children understanding the link between waste, the environment, pollution, agriculture.

This option is in addition to Option B. Option C offers ideas for additional activities which can be done at school to go further into understanding the links between waste and pollution and its impacts.

- Activities on waste management awareness raising, training, and collection promoting the need for a clean environment and ensuring proper disposal of waste (waste picking events, dramas on risks of pollution, school garden)
- Understanding the water cycle, the process for waste to decompose and the risks of pollution for drinking water and growing food.
- Integrating waste management into the usual curriculum (using maths to calculate the weight of waste produced etc).



Additional Resources

[Blue Schools - Linking WASH in Schools with Environmental Education and Practice](#) (Catalogue of technologies, Facilitator's guide, Practical Exercises)

[Handbook for Schools on organic waste management](#)
[Application of pit humus and compost](#)

Hygiene and Sanitation Education

Students with their teacher waiting in line to wash their hands, Sierra Leone, June 2015, Concern Worldwide

Objectives

- Schools fulfil their roles as important places to provide basic water, sanitation and hygiene information.
- Schools provide guidance on safe WASH behaviours that help children, families and teachers stay healthy and avoid life threatening diseases
- Schools mobilize and involve parents, communities, governments and institutions to work together to improve hygiene, water and sanitation conditions.



Outline of the Section:

Promoting Hygiene and Sanitation at School

Page 31

1. Interventions at school level

Page 31



Essentials for Hygiene Promotion
(p.31)



Integrating Hygiene Promotion
(p.32)



Mainstreaming Hygiene Promotion
(p.32)

Promoting Hygiene and Sanitation at School



Objective:

- Schools support fully integrated life skills education, focusing on key hygiene behaviours for school children and using participatory teaching techniques
- School personnel understand the key role they play in keeping and promoting a safe and clean environment
- Schools promote hygiene through children at community level



Minimum Standards:

- Children learn about and practice hygiene behaviours
- School personnel participate in keeping the environment clean and promoting hygiene behaviours

Hygiene promotion, which can be understood as an awareness raising process on the proper attitudes and ways to use the facilities, is mandatory to achieve effective enhancement in children's health. Hygiene promotion comprises all interventions aiming at developing life skills by pupils, increasing their awareness and understanding of behaviours favourable to their wellbeing. Similarly, staff in charge of maintenance of WASH equipment on the school premises understands the key role they play in keeping the surrounding environment safe and clean, and the positive impact it has on everybody's health status.

1. Interventions at school level

The provision of hardware like water taps and consumables like soap is in itself not sufficient to have a significant impact on behaviour change and on children's health. In addition to the hardware (handwashing facility and infrastructure) and to the supplies (soap), it is important that Hygiene is promoted and school is a perfect place to do it.

Main principles to promote Hygiene at school:

- The facilitation should be entertaining and participative (avoid a lesson with only the facilitator talking)
- Visual material and hygiene messaging should be designed to trigger emotion and to be understood by all children. It is not only about passing on rational information but it can be integrated into a story with different characters that the children can identify themselves to.
- For better success it is best to limit the number of behaviours and information displayed on visual material or discussed during facilitations. If you want to discuss different topics, plan different campaigns!

Handwashing with soap remains the most important behaviour to prevent WASH-related diseases but other topics can be included within Hygiene Promotion activities at school:

- Tooth brushing
- Personal hygiene and Washing



Option A

Essentials for Hygiene Promotion

Best for schools with:

- Limited resources (human, financial, time) to promote hygiene.

Punctual events that can be led by Concern staff and require few resources, staff and time from the school. It is the minimum to be implemented at school.

The activities can take different forms and be carried out either by teachers, School personnel or School Management Committee members or Concern staff (preferably the first two to ensure engagement at community level):

- Hygiene promotion activity to introduce the notions of germs, present the different contamination pathways and ways of preventing them. Different support material can be provided for performing these facilitations such as the [Germs and ladder games](#) for example.
- Activities for linking the existing school WASH facilities with hygiene promotion initiatives. For instance, organising a competition with regards for the best slogan to be put above the handwashing stations to convince schoolchildren to wash their hands after going to toilet.
- One off events such as [Event for global handwashing day](#) with various activities and games, at school or at community level involving the children.
- If Concern has just rehabilitated or built WASH facility, a session should be organised with all children to explain how to use the facilities, the importance of keeping them clean etc.



Picture 44



Option B

Integrating Hygiene Promotion at School

Best for schools:

- With some resources and/or willingness and time to develop Hygiene promotion activities
- Who are already carrying out Option A and want to go further into Handwashing and Hygiene Promotion
- With opportunities and willingness to organise extra curricula activities



Picture 45

This option is in addition to Option A which include the essential basic activities to promote Hygiene. This Option presents some additional activities which can be carried out at school level to integrate Hygiene Promotion more into the schools' everyday activities. Examples of additional activities that can be put in place:

- **Child Hygiene and Sanitation Training (CHAST)** is an approach for promoting good hygiene among children. It is based upon the Participatory Hygiene and Sanitation Transformation approach, designed with a participatory learning methodology. CHAST applies a variety of exercises and educational games to educate children about the direct links between personal hygiene and good health. It can be done with all children.
- **School Hygiene/Health club** is a voluntary club formed and managed by pupils and teachers to promote good health practices in the school and community. It is targeted since it typically comprises of only 20-35 pupils and 1-2 teachers. It is after school with the club conducting participative activities around hygiene.
- **After school activities** such as the projection of short hygiene promotional videos followed by a discussion, or a drama or songs organised by Concern WASH teams etc.



Option C

Mainstreaming Hygiene Promotion

Best for schools:

- Who can/want to allocate more resources and time to promote Hygiene
- With opportunities to integrate Hygiene Promotion within teaching curriculum
- Where Concern work closely with the Education Personnel and SMCs

This option is in addition to Option A and B and would secure the best chances of obtaining effective adoption of positive hygiene behaviour practices in the school.

Option C is proposing ideas to mainstream Hygiene Promotion at school with a strong commitment from teachers and the SMCs towards shifting the school culture. While Options A and B offer activities which can be done punctually and lead by facilitators external to the school (Concern staff for example), Option C looks into involving the school as much as possible with activities lead by school personnel (with possible support or training from Concern):

- **Hygiene promotion as part of the curriculum.** In many countries, it is mandatory to have some Hygiene Promotion as part of the official school curriculum. It can therefore be useful to conduct an analysis of the National Education policy to identify whether there is potentiality (and a willingness) to plan and conduct the proposed activities or to advocate for it to be integrated.
- **Integrating into teaching:** WASH themes are cross-cutting and while WASH lessons can be independent lessons dedicated to the topic (in science for example), it can also be integrated throughout all other lessons (math, reading, language). For example sentence on handwashing can be used for reading exercises and math lessons can involve calculating the amount of faeces produced at school
- **SLTS (School-Led Total Sanitation)** aims at making the school and its catchments free from open defecation with the collaborative efforts of school children, school board and communities surrounding the school. This activity requires time and some technique and can therefore be supported by Concern.



Picture 46

Additional Resources

[Child Hygiene and Sanitation Training \(CHAST\)](#)

[Participatory Hygiene and Sanitation Transformation \(PHAST\)](#)

[Guide for the formation & strengthening of school health clubs](#)

[School-Led Total Sanitation \(SLTS\)](#)

[Calculating the amount of faeces produced at school](#) (Tool N3 Page 35)

Monitoring and Evaluation

Objectives

- The WASH in School interventions are based on findings from assessments and are designed to best respond to needs.
- The M&E process provides information on access, use, functionality, operation and maintenance of WASH facilities, their child and gender friendliness, hygiene education and hand washing practices in the schools.
- A solid monitoring and results-based management system is in place to ensure that the WASH in School activities are carried out as per plan, that the expected changes occur as desired or that changes in the design are made.



1. Assessments

The design of WASH in School interventions should be based on findings from community-based and school-based assessments highlighting the need for such intervention and the areas that Concern should focus on to achieve the desired outcome and the starting point of the WASH services in each school so that activities can be tailored.



- **WASH in School Needs Assessments**

They can be qualitative and/or quantitative, primary or secondary data gathering looking for information at school level and among stakeholders on whether WASH in School intervention is needed and, if so, which are the key areas to be worked on. **Secondary data** can be gathered from government, UN and other NGOs reports, school records etc. School-based **primary information** can be gathered with a **quantitative** basic WASH in School Assessment, or a quantitative or **qualitative** interview with School Staff. Qualitative Needs Assessments typically aim at interviewing key stakeholders including community leaders, school directors and teachers, parents associations, community members, parents of school-age children and, of course, children (though interviewing children is not recommended unless necessary and unless the team has specific skillsets).

Diversity of opinion is essential to ensure the designed intervention takes it into account and can meet the needs of all. Make sure to include different communities (geographic location, demographics) and a fair representation of men, women, boys, girls and people with disabilities. These assessments are usually carried out by M&E and WASH Teams jointly.



- **School-based WASH Technical Assessment**

They often take the form of quantitative checklists or qualitative interviews carried out with the school personnel by a member of Concern's WASH Team (being highly technical, they should be done by WASH staff, not M&E). These technical assessments will be helpful to understand the starting point of each school and design intervention accordingly. It can also be used as a baseline for later in the project to assess the extent to which the desired improvements in the WASH situation in each school have occurred.

Additional Resources

[WASH PM&E Page](#)

[Education PM&E Page](#) (Tab 1)

2. Monitoring and Results-Based Management



As for any type of intervention, it is crucial to develop a solid monitoring and results-based management system to ensure that the activities are carried out as per plan, that the changes occur as desired and if not that changes in design are made. A system that is effective in monitoring WASH in Schools interventions is based on the following principles:

- **SMART Indicators:** a set of SMART indicators should be established at design stage to capture the desired changes. This includes indicator for donor reporting (used to show the progress made at donor reporting stage) and indicators for internal monitoring (used to closely look at how each dimension of our intervention is going). The indicators should be included in the Logical Framework and defined by both WASH, Education and MEAL Teams. Examples of SMART WASH in Schools Indicators are available in [Concern's WASH and Education Library](#).
- **Monitoring System:** All project components are monitored with a solid monitoring system whether you are working on all dimensions of WASH in School (enabling environment, software and hardware), just one or some of them. Every single component you are working on should be monitored, as well as the broader outcome you are working towards (improved hygiene; improved learning). This means ensuring that indicators are regularly measured as per the M&E Plan
- **Monitoring all levels of change:** A solid monitoring system is in place for every level of the so-called “results chain” (activities, outputs and outcomes) as outlined in the project M&E Plan.
 - **Activity tracking:** done by project staff, does not involve data collection and is carried out with simple activity tracking tools to help staff check that activities are implemented as per plan. It is usually shared within and outside the project team through weekly or monthly Project Progress Reports, Meetings or email exchanges.
 - **Output monitoring:** done by project or MEAL staff to check that the intermediate changes expected as a result of the activities are being achieved. The regular monitoring of outputs usually involves some level of data collection (qualitative or quantitative, depending on the indicators), and enables the project team to understand if the project is on track to meet the objectives. Data collection for output monitoring can involve surveying key respondents (teachers, students, parents etc) but should also consider observational surveys to verify what is reported towards what is being used/implemented. The results are usually shared between the project and MEAL Teams through periodic (monthly, bi-monthly, quarterly) Project Review Meetings and Reports or email.
 - **Outcome monitoring:** responsibility of the MEAL Team as it involves complex data collection and analysis. These are usually baseline, midline, endline and annual surveys that measure internal and donor-reporting, outcome-level indicators on each of the WASH in Schools dimensions that our intervention aimed to improve. The results are shared by the MEAL team to the project team through Annual Project Review Meetings and Reports.
- **Collecting and analysing high quality data:** a solid monitoring system relies on high-quality data, able to produce evidence of the results being achieved. Our ability to collect high-quality data depends on resource availability as well as on the quality of the indicators and the data collection tools, the appropriateness of the methods and strategies, and highly-capable male and female enumerators. From baseline throughout the life cycle of the intervention, data should be regularly and timely analysed. This allows to identify enablers or barriers that may influence the achievement of the objectives. Recognizing that this can be challenging in high-paced work environments, all the quantitative Standard Indicators for Monitoring WASH in School are built on Concern's digital data gathering system (iForm Builder) with automatic data analysis. Of key importance when analysing WASH in School information is providing school-based and location-based disaggregated information and gender-disaggregated information for boys and girls for a deeper insight in to the gender-specific challenges faced by students.
- **Reflecting on and learning from the data:** data is only useful if it is used. As soon as possible after data is produced by the monitoring system, formal opportunities for review, reflection and discussions should be created. The aim is for MEAL, the WASH and Education Teams to improve the quality, quantity, coverage, cost and continuity of WASH services in schools. Recommendations based on lessons learned need to be as inclusive as possible of all stakeholders concerned as most solutions may require their involvement.



Additional Resources

[Concern's Programme Quality Guide](#)

[WASH PM&E Page](#) and [Education PM&E Page](#) on the PQ Guide

[Monitoring and Results-based Management](#) PQ Guide

Checklist

Minimum Standards for WASH in School and Learning Centres:

WATER	✓ / ✗
Drinking water	
3 litres/person/day for drinking and hand washing (for pupils and staff), plus additional water for cooking	
Potable water with zero faecal contamination meeting national and international standards for water quality	
Water is chlorinated where possible and feasible to 0.2-0.5mg/litre Free Residual Chlorine (FRC).	
Water storage containers have narrow necks and/or covers and taps, or other safe means of storage and handling exists.	
Non Drinking Water	
2-8 litres/cubicle/day for toilet cleaning	
3-5 litres/user/day for pour-flush toilets	
Anal washing/cleansing 1-2 litres/person/day (when applicable)	
Management of Water Resources	
An operation and maintenance plan of the school's water system is in place with the School Management Committee (SMC), local authority or community water management committee (WMC)	
HYGIENE	
Handwashing	
Individual handwashing facilities with soap in strategic areas	
200 g soap per learner per year is enough for each learner to wash hands 2 to 3 times a day in school.	
Children wash their hands at school during critical times	
Menstrual Hygiene Management	
Material is available: absorbent material (4 m ² per year), disposable pads (15 per month) or reusable pads or underwear (six per year), as preferred by women and girls	
Facilities have a discrete disposal mechanism a container with a lid, with collection and disposal system and there is information on proper disposal of sanitary pads in the girl's toilet.	
Extra soap is available in the washroom (250 grams per month)	
IEC materials on menstrual hygiene management for teachers and learners are available.	
SANITATION	
Latrines	
1 toilet for every 25 girls, with a minimum of 4 cubicles, including one accessible cubicle.	
1 toilet for every 50 boys, with a minimum of 4 cubicles, including one accessible cubicle and 1 urinal (or 1m of urinal wall) for every 50 boys.	
1 toilet for every 10 male members of staff and 1 toilet for every 8 female members of staff, with a minimum of 2 toilets (one for men and one for women). Toilets for staff are separate from those for pupils. Accessible toilets are provided as needed.	
Toilets are secure, private, with door and lock, lighting, ventilation and rubbish bins.	
There is a handwashing facility with water and soap available within or near the toilets and a facility for washing in female toilets for MHM.	
Toilets are located within view of school building and people.	
Solid Waste Management	
Bins are available in all key locations and are emptied regularly.	
Solid waste at school is handled and disposed of safely.	
The environment is free from solid waste with no inappropriate disposal.	
HYGIENE AND SANITATION EDUCATION	
Promoting Hygiene and Sanitation at School	
Children learn about and practice hygiene behaviours	
School personnel participate in keeping the environment clean and promoting hygiene behaviours	

Additional Resources

Strategic and operational guidelines:

[UNICEF WASH](#)

[Minimum Standards in Water Supply, Sanitation and Hygiene Promotion](#)

[Environmental sustainability and climate change adaptation in Sphere](#)

[Global humanitarian WASH guidance 2019-2021](#) (Save the Children)

[Towards Effective Programming for WASH in Schools, manual on scaling up WASH in Schools](#) (IRC, 2007)

[Water, Sanitation, and Hygiene in Schools Toolkit](#) Office of Global Health and HIV (Peace Corps 2017)

[Improving water, sanitation, and hygiene access for people living in extreme poverty in hard-to-reach areas](#), Concern Worldwide Bangladesh

[Guidelines for Consulting with Children and Young People with Disabilities](#), Plan International

Approaches and resources at school level:

[WASH in Schools Three Star Approach](#)

[WASH in School, Companion to the Child Friendly School Manual](#) UNICEF

WASH Friendly Schools

- [Basic guide for school directors, teachers, students, parents and administrators](#)
- [Training guide for parents, teachers and student leaders](#)
- [Training resource for splash use](#)

Tools and material to use with children:

[Kiribati WASH in Schools Toolkit](#) (from Grade 1)

[The Joy of Learning Participatory lesson plans on hygiene, sanitation, water, health and the environment](#) (Age 2 to 14)

[Water, Sanitation and Hygiene for Schoolchildren in Emergencies - A Guidebook for Teachers](#) (UNICEF)



References

- (1) The impact of water, sanitation and hygiene on key health and social outcomes: review of evidence, Joanna Esteves Mills & Oliver Cumming, June 2016
- (2) Water, Sanitation and Hygiene (WASH) in Schools, A companion to the Child Friendly Schools Manual, UNICEF

Pictures captions

- Picture 1: Child using hand pump at primary school, Sierra Leone, June 2015, Concern worldwide
- Picture 2: Water bottles, Canva
- Picture 3: Rainwater collection system installed by WASH consortium, Sierra Leone, June 2015, Concern Worldwide
- Picture 4: Muktar Hossain using the deep tube well installed by Concern at Gopalpur Government Primary School, Haor area, Bangladesh, 2016, Concern Worldwide
- Picture 5: Rehabilitation of WASH facilities in primary school by Concern Worldwide, Syria, 2019
- Picture 6: Solar water disinfection (SODIS) application in Indonesia using clear PET plastic bottles, Wikipedia
- Picture 7: Cooking in large pots at Concern worldwide office, Syria, 2019
- Picture 8: Plastic version of biosand filter connected to traditional water storage recipient (canari). Source: WORLD NEWS INC ([SSWM](#))
- Picture 9: Testing chlorination of water truck with a pool tester, Concern Worldwide, Syria, 2021
- Picture 10: Dirty containers without lids waiting to be filled at a water point, Bentiu, South Sudan, John Heelham, 2015, Concern Worldwide
- Picture 11: Water irrigation channel, Syria, 2019, Concern Worldwide
- Picture 12: Concern Worldwide training session for community based WASH Committee in Shyamnagar, Satkhira, Bangladesh, 2016
- Picture 13: Girl washing her hands in primary school, Sierra Leone, 2015, Concern Worldwide
- Picture 14: Child using tippy tap, Feb 2019, Rural Web
- Picture 15: Children washing their hands at Global Handwashing Day, 2018, [United Purpose Nigeria](#)
- Picture 16: [Yet tank stand made from welded square tube and bucket with lid Based on WASHaLOT construction](#), Tanzania, Moshi, Nelson Mandela Primary School Tanzania, GIZ Programme, Built by: ZESHAK (local manufacturer) Childreach Tanzania (implementing NGO on behalf of GIZ)
- Picture 17: [Solid facility built from brick with a water tank, punched PVC pipe and gravel drainage](#), Zambia, Choma District, Kusakwe Community School, Designed by UNICEF Zambia and piloted by Ministry of General Education, built by: NGO Akros
- Picture 18: WASH facilities rehabilitated by Concern Worldwide in a primary school, Syria, 2019
- Picture 19: Hands holding ashes, Dreamstime
- Picture 20: Girl washing her hands in primary school, Sierra Leone, 2015, Concern Worldwide
- Picture 21: IEC material on handwashing in a primary school in Sierra Leone, 2014, Concern Worldwide
- Picture 22: Boy washing his hands with the class in primary school, Sierra Leone, 2015, Concern Worldwide
- Picture 23: Stage performance to demonstrate handwashing, Itna, Kishoregani, Bangladesh, 2016
- Picture 24: Teacher presenting a science lesson on Malaria in primary school, Sierra Leone, 2015, Concern Worldwide
- Picture 25: Distributing sanitary napkins among adolescent girls' school students at Tamiza Khatun Govt. Girls' High School, Mithamoin Upazilla, Bangladesh, 2016, concern Worldwide
- Picture 26: Latrine block for girls built by Concern worldwide in primary school, Syria, 2019
- Picture 27: [Girls learn how to make their own sanitary pads, UNICEF Nigeria](#), 2018
- Picture 28: Training of teachers by Concern Worldwide in primary school, Sierra Leone, 2015
- Picture 29 Latrine block in a primary school, Sierra Leone, 2015, Concern Worldwide
- Picture 30 A school latrine block which collapsed due to no lining in the latrine pit, John Heelham, Mozambique, March 2017
- Picture 31 Block of pit latrines with a ramp at a school, Democratic Republic of Congo, John Heelham, 2016,
- Picture 32 VIP toilets built by Concern worldwide in a school, Niger, 2020, Asmane Saadou, Concern Worldwide
- Picture 33 Pour flush latrines built by Concern Worldwide in a primary school, Syria, 2019
- Picture 34 Toilet seat for accessibility, [Water and sanitation for disabled people and other vulnerable groups: Designing services to improve accessibility](#)
- Picture 35 Accessible flush latrine built by Concern Worldwide in a primary school, Syria, 2019
- Picture 36 Student helping another student in a wheelchair going down the accessibility ramp built by Concern Worldwide in a primary school, Syria, 2019
- Picture 37 Children throwing waste in a bin at Concern Worldwide's Non Formal Education Centre, Syria, 2019
- Picture 38 Girl throwing waste in a bin at Concern Worldwide's Non Formal Education Centre, Syria, 2019
- Picture 39 [Waste pit construction in Azam Kura community, Nigeria](#), 2019, WFP and CCDRN
- Picture 40 Traditional composting methods in Jeewakotu, Sri Lanka, [Efficiency of the Household Compost bin as a Waste Management Technique in Sri Lanka \(A Case Study in Gampaha Municipal Council Area \)](#)
- Picture 41 Plastic Bottle Construction, [cisterns/water tank built by Eco-Tec, Insteading](#)
- Picture 42 Gardening project with children from Concern's Child Friendly Space in an IDP camp, Syria, 2019
- Picture 43: [School Children in Iraq Celebrate Global Handwashing Day](#), October 2017, Photo: Hoger Qassim/ Malteser International
- Picture 44: [School Children in Iraq Celebrate Global Handwashing Day](#), October 2017, Photo: Hoger Qassim/ Malteser International
- Picture 45: Girl in Concern's Child Friendly Space during a session on tooth brushing, Syria, 2019
- Picture 46: Teachers during Concern's teacher training on Lanin Bizness project, Sierra Leone, April 2017
- Picture 47: Community after community conversation activity, Sierra Leone, 2014, Concern Worlwide
- Picture 48: Water testing with a chlorometer, Syria, 2020, Concern Worldwide

