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FIELD GUIDE

WASHaLOT

Prefabricated Group Washing Facility
for Schools



Making Children Fit for School



Daily handwashing with soap to reduce diarrhea and other preventable diseases

Daily toothbrushing with fluoride toothpaste to prevent tooth decay

Bi-annual deworming to reduce worm infections



The Fit for School Program combines preventive interventions with school improvements that enable the practice of healthy habits. It aims to promote the health of children, so that they can go to school more often and perform better.

Introduction

The simple hygiene habits of handwashing with soap and toothbrushing significantly contribute to the health and well-being of children and should be part of their education. While the idea of teaching handwashing and toothbrushing in schools has been around for decades, the actual practice of these activities has been hindered by long queues around the washing station.

The concept of building school washing facilities that could accommodate children in groups was first implemented at large scale under the Essential Health Care Program of the Philippines' Department of Education, with the support of a local NGO, Fit for School. Using low-cost, locally available materials and voluntary labor from the community, the approach became a model for transforming schools into healthy places for children, where hygiene habits are not just being taught but can be practiced. The construction of group handwashing facilities paves the way for promoting health in schools. With support from the GIZ Regional Fit for School Program, government agencies in Indonesia, Lao PDR and Cambodia have also adopted the approach in several schools that today serve as models for scaling up.

After several years of implementation, it became clear that there have been significant challenges in successfully constructing and maintaining washing facilities. Local efforts to construct facilities have been encouraging, but school communities raised issues regarding facilities that they were unable to maintain or which do not function properly.

In response to these challenges, GIZ developed the WASHaLOT prefabricated group washing facility, which can be adapted to a variety of contexts while ensuring essential functionality and addressing most of the issues encountered so far. Only the vital core components of a group washing facility are prefabricated, leaving room for community involvement and ownership. The facility has been developed to function in conditions with erratic access to water and it can be easily maintained and repaired with minimal expertise found in any community. Its practical design allows individual hand washing and minimizes water consumption.

The Field Guide showcases the key features of WASHaLOT and how it addresses practical issues with respect to the design, functionality, and durability of group washing facilities in schools. Its purpose is to allow readers to thoughtfully consider these features when constructing group washing facilities in schools and benefit from this fund of experience.

Table of Content

1. WASHaLOT	4
2. Practical Considerations	12
3. Cleaning & Maintenance	30
4. Beautification	34
Imprint	39



WASHaLOT

WASHaLOT was designed to address the challenges previously encountered in the construction of group washing facilities. It has the essential features of a group washing facility and allows improvements to be built around it.



Group Washing Facility //
WASHaLOT is a 3-meter galvanized steel pipe with 11 drilled holes. It can accommodate up to 22 children. It includes a water container placed at an adequate height to ensure sufficient water pressure.



Low Consumption //
Using punched water pipes instead of individual faucets keep operation and maintenance costs low. During a hand-washing activity, the facility consumes only 115ml of water per child, since water is only needed to wet the hands and rinse away the soap.



Prefabricated //
WASHaLOT can be prefabricated by trained workers and cost between 70–90 USD, depending on the specific country. In schools, WASHaLOT can be assembled by lay persons.



WASHaLOT // Features, Enhancements, Dimensions



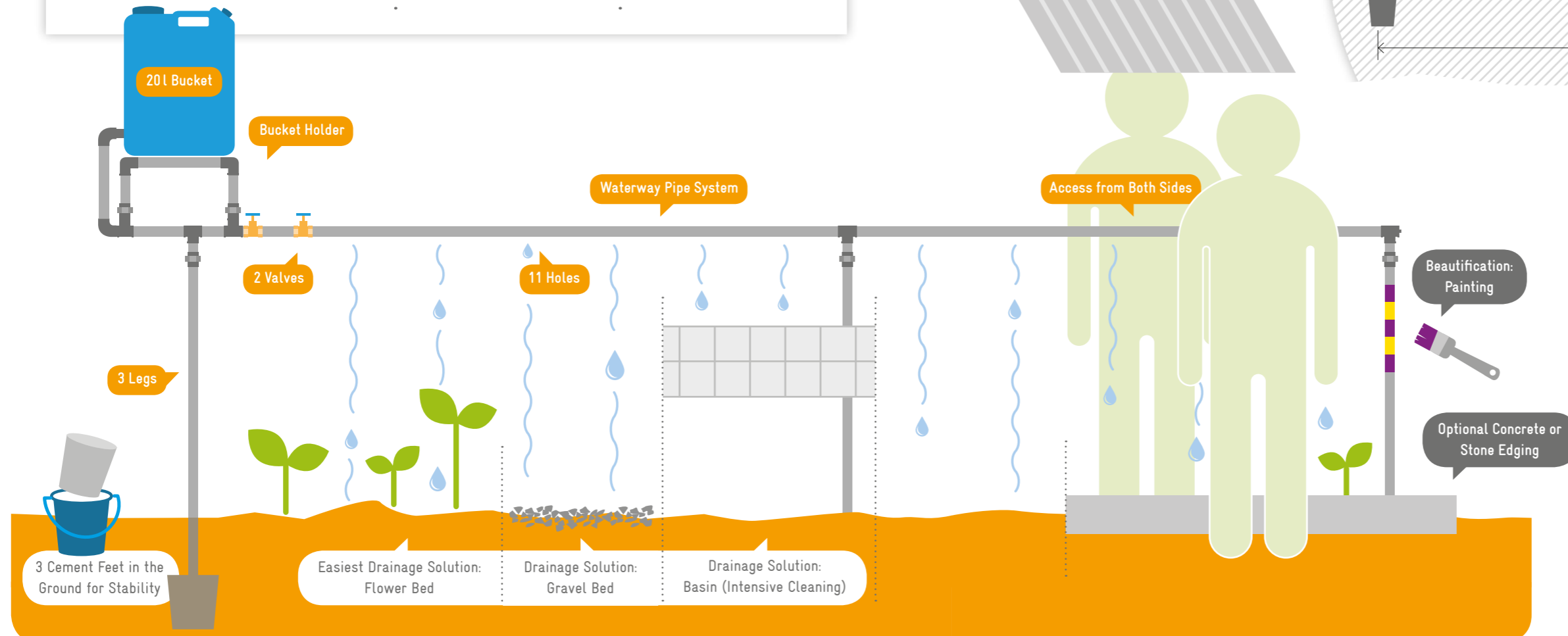
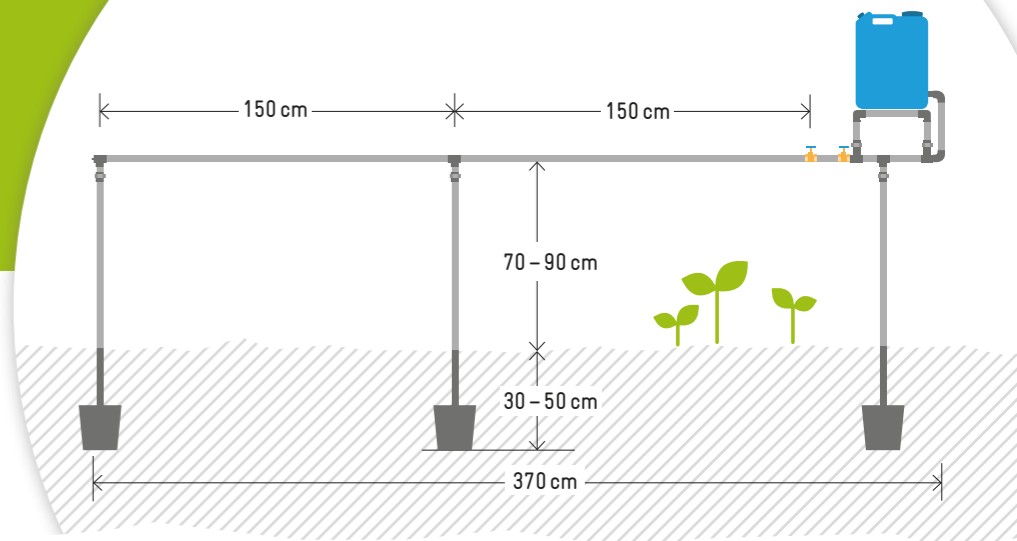
1 WASHaLOT =
Up to 22 children
washing their hands and
brushing their teeth.



Minimized
water consumption:
115 ml per child
for handwashing.



The simple design
can easily
prefabricated by a
local contractor.



WASHaLOT // Comparison with other Group Washing Facilities



What type of facility should we build?

What if our school does not have a reliable water supply?



How can we avoid stolen faucets?



How can we make our facility look better and more durable?



What if we do not have the funds to build a facility?



WASHaLOT

Tiled or Concrete Facility

Tippy Tap

	Construction Costs	Operation and Maintenance Costs	Opportunity for Community Participation	Durability	Independent Water Supply	Space Required on School Compound	Acceptability in Rural Settings	Acceptability in Urban Settings	
WASHaLOT	☹️	😊	☹️	😊	😊	😊	😊	😊	WASHaLOT
Tiled or Concrete Facility	☹️	☹️	😊	😊	☹️	☹️	☹️	😊	Tiled or Concrete
Tippy Tap	😊	😊	😊	☹️	😊	😊	😊	☹️	Tippy Tap

Experiences



Eduardo // Parent

"When the principal told me that our school would receive a WASHaLOT, I was very happy to be there for the installation because I could see how the facility is installed and how it can be fixed if it is broken. In case there is a problem with the facility, I know how it works so I can help to repair it. In this way, I can be sure that my child is practicing handwashing and toothbrushing each day."

Nicanor // Principal

"In installing the WASHaLOT, it was important that I was involved in the process from the beginning. We had to carefully choose a location on the school ground which would make the facility accessible for the most students and would protect children from the rain. Prior to the installation, I met with the school community members to ensure that we had enough volunteers."



For more information about the WASHaLOT please contact us

Cambodia

GIZ Fit for School Programme
c/o GIZ Office Phnom Penh #17, Street 306
Phnom Penh Cambodia
Telephone: +855 17577395

Indonesia

GIZ Fit for School Programme
TP-UKS Provincial Education Office West Java
Jl. Dr. Rajiman No. 6
Bandung, Indonesia 40171
Telephone: +62 813 6056 9610

Lao PDR

GIZ Fit for School Programme
c/o GIZ Office Vientiane, P.O. Box 9233
Thaphalanxay Village, Sisattanak District
Vientiane Capital, Lao P.D.R
Telephone: +856 20 23040090

Philippines

GIZ Fit for School Programme
Unit 7-F, PDCP Bank Centre, Rufino corner Leviste Sts,
Salcedo Village, Makati City, Philippines 1227
Telephone: +63 2 651-5173 to 78



2

Practical Considerations

- Water Supply
- Outlets
- Basin & Drainage
- Soap Holder
- Stability & Security



→ Water Supply

Water for handwashing facilities can be provided by a school's central water supply. Storing water is a good idea in schools with erratic water supply. Water stores can be supplemented by collected rainwater.



✓ Central Water Supply

A storage tank that can be refilled manually is essential for schools with unreliable or no water supply.



✓ Manual Refilling



✓ Automatic Refilling

With sufficient pressure from a pump or by gravity, water pipes can conveniently distribute water from a central reservoir to several washing facilities.



✓ Distribution System



WASHaLOT Advantages

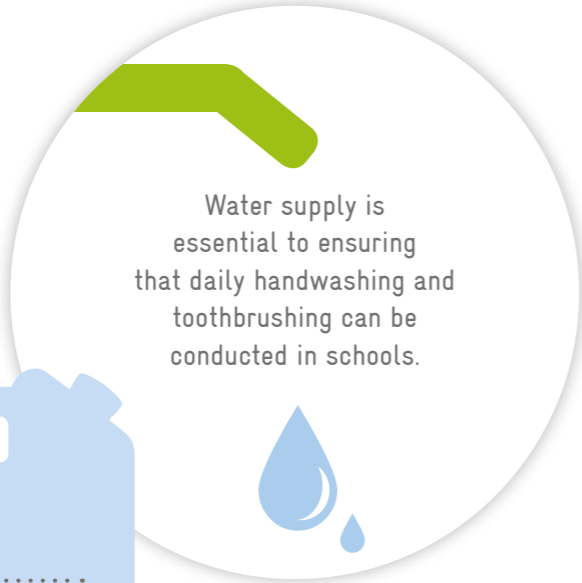
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Having an elevated water container for every facility provides pressure independent from the main water supply, additional water storage, and it can be refilled manually or semi-automatically.

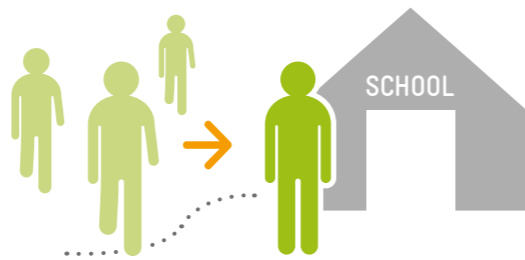
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Elevated and manually refillable water containers ensure that the hand-washing activities can continue even when the central water supply fails.

.....



Water supply is essential to ensuring that daily handwashing and toothbrushing can be conducted in schools.



Community Involvement // Water Supply

In the Philippines, the Essential Health Care Program emphasized the need for water supply in schools, which did not have their own water supply to begin with. In many schools the concerned parents raised the issue with their village council, which in many cases provided water supply facilities for the school.

Common Mistakes // Water Supply

The water container should be positioned higher than the outflow of the washing facility to ensure adequate flow and pressure.



Water storage facilities should be covered to prevent mosquitos from breeding and prevent debris from clogging the water container.

The connection from the water tank to the facility should be checked for leaks.



→ Outlets

Ideally, each classroom should have an assigned group handwashing facility. This will allow a class of children to conduct group activities in a quick and efficient manner.



The most practical way to provide outlets for a group washing facility is to drill or punch holes along the length of a pipe. The space between wholes should be 30 cm to allow for students to stand side-by-side. A 1.5 mm hole is enough and uses the least amount of water. Be aware that if you make the holes bigger, the water consumption will also increase.



Faucets allow better flow but compared to simple holes, faucets cost more, consume more water, are susceptible to leaks and are common targets for theft because they can be easily detached.

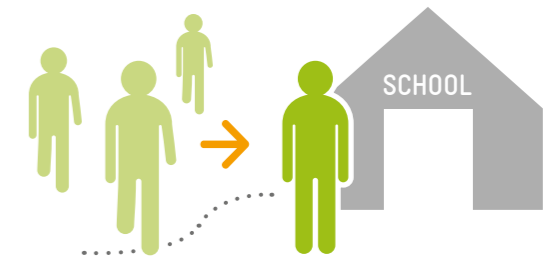


WASHaLOT Advantages

Punched pipes consume less water, require less maintenance, and are less prone to theft compared to faucets.

The water bucket is elevated at a height that will ensure sufficient pressure throughout the entire pipe, even without incline.

The addition of an outlet for individual handwashing improves the functionality of the facility.



Community Involvement // Outlets

Students or community members are encouraged to paint the pipes of the facility. Painted pipes are art works, beautify the school and are less prone to theft because they can not be sold anymore. Paint also gives the pipes a protective coat.

Multiple outlets allow several children to wash their hands at the same time.



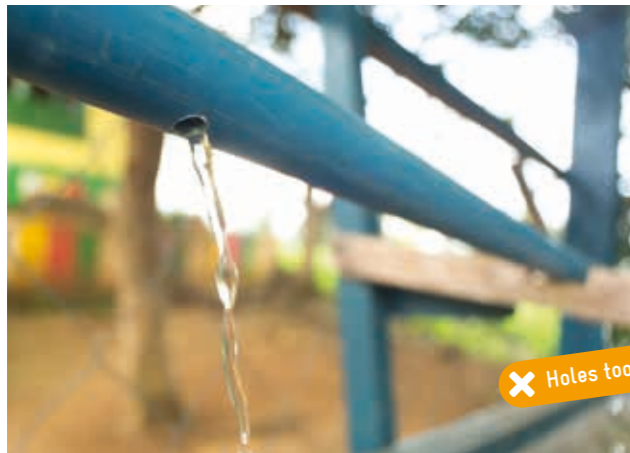
Common Mistakes // Outlets

The holes on the pipe should be made in such a way that the water does not flow outside basin.

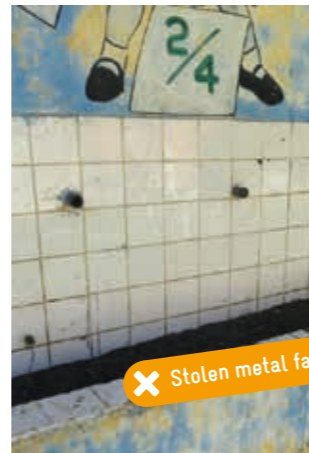


Too many holes will result in wasted water and loss of water pressure along the pipe. On the other hand, too much spacing between holes will result in less children being able to wash their hands at the same time.

Large holes needlessly increase water consumption.



The threads of cheap plastic faucets tend to break down and leak with heavy use. Metal faucets are more durable, but these are also prone to theft.



→ Basin & Drainage

The basin is an optional feature that allows wastewater to be channeled to the drainage. While it allows more beautification options for the facility, it also adds to the cost.



Building the facility near to or over a pre-existing gutter is the most efficient way to provide drainage for the washing facility.



For a basin to drain properly, its length should be inclined toward the drain.

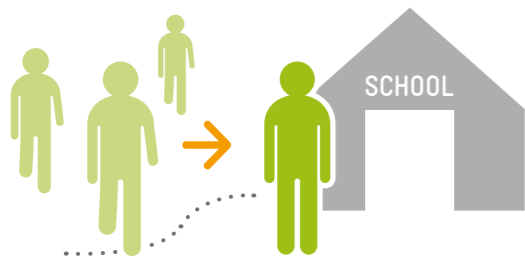


The height of the basin should be at the waist level of the students meant to use the facility. The size of the basin should allow the average student to reach the outflow without having to stretch the entire arm.



Collecting wastewater from the facility to flush toilets and water the plants teaches the school community to conserve water.





Community Involvement // Basin & Drainage

Eliminating stagnant water from school grounds should be part of daily school cleaning activities. This will help prevent dengue in schools and make students more conscious of mosquitos breeding around them.

Correct disposal or reuse of wastewater is key to the proper maintenance of the facilities and keeping the school grounds safe and clean.



WASHaLOT Advantages

No basin is needed. Building the facility over a bed of plants prevents water puddles and improves the appearance of the facility at the same time.

A basin should only be added to a facility if school resources are sufficient. Always consider that cleaning and maintaining a basin requires water and cleaning supplies.

Common Mistakes // Basin & Drainage

Sharp edges should be blunted or removed to avoid accidents.



Sharp edges



Basin too wide

There is no need for a very wide basin, as it only requires more building material and makes the outflow harder to reach.

Drain holes left open might cause children to trip or fall in.



Open drain hole

→ Soap Holder

Attaching soap to the washing facility by hanging it in a nylon stocking or fishnet ensures that the soap stays in the facility, keeps it dry, and prevents it from being dropped during the handwashing activity.



✓ Fish net

A soap holder that drains well can also be fastened to the wall.

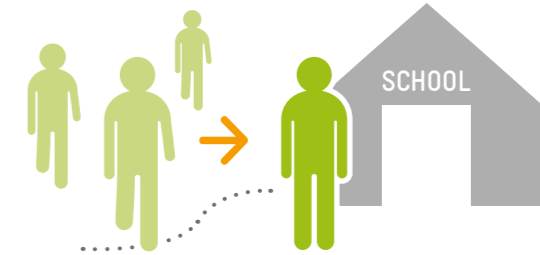


✓ Fixed soap holder

Some schools opt to store the soap in the classroom to keep it from being stolen or exposed to the rain.



✓ Individual soap dish



Community Involvement // Soap Holder

In case the government supply of hygiene supplies do not arrive on time, the community can bridge and ensure availability of soap in the school.

Soap significantly increases the effectiveness of handwashing and should thus be made available in every handwashing station at all times.

WASHaLOT Advantages

Soap bars in fishnet can be easily hung at the pipes.

Common Mistakes // Soap Holder

Soap that is left in a puddle of water will melt away faster.



Individual handwashing facilities near the toilets often lack availability of soap. A good maintenance routine should ensure that soap is always available for individual handwashing.



→ Stability & Security

A strong foundation is the key for a stable and secure facility. The posts or stands of facilities should be cemented into the ground.



A location near the classroom and principals office is often a good location to keep the group washing facility safe and usable. Placing the facilities close to the classroom also makes it easier for students to perform the hygiene activities everyday.



A fence around the school property will secure the school ground and keep animals out of the school premises. This is important as school grounds should be free of feces of animals.



Common Mistakes // Stability & Security

Wet ground — especially a cement floor — can be slippery and pose a hazard for students.



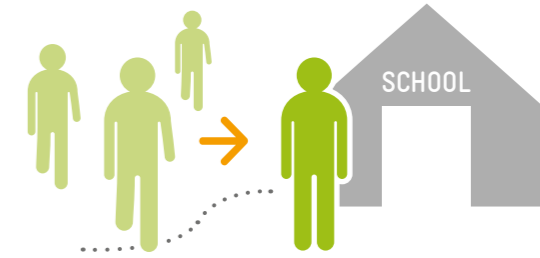
Wet ground



Light materials

Light materials like wood should not be used for raising the water container.

A stable design and set up and a secure location of the group washing facility will ensure a safe learning environment for students and a longer lifespan for the facility.



Community Involvement // Stability & Security

With small investments for the foundation, fences or flowerbeds, the community can support the school in improving and beautifying the learning environment for the children. It is simply more fun to be in a clean place.

WASHaLOT Advantages

.....
Point foundations will save material costs and ensure a stable facility.
.....

Child-friendly designs like a flowerbed under the facilities keep the surrounding ground dry and prevent students from using the facilities as unsafe playgrounds.
.....

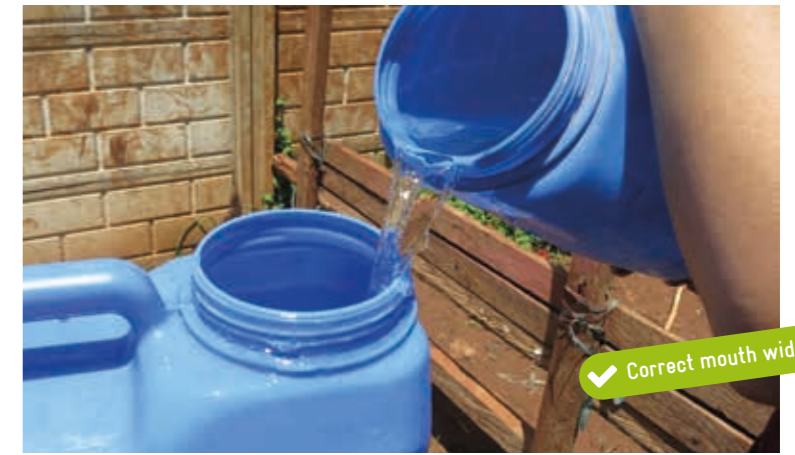
3

Cleaning & Maintenance

Regular cleaning and proper maintenance of your facilities ensures daily functionality and saves money in the long run. This can be achieved through simple tasks that may involve students or the community.

→ Cleaning & Maintenance

The facility's water tank needs to be refilled daily. Using a narrow-mouthed container for refilling will prevent spillage.



✓ Correct mouth width



✗ Mouth too wide

The inside of the facility's water container needs to be cleaned regularly to prevent the growth of algae and dirty water.



✓ Clean container

Clogged pipe holes need to be cleared with a wire or needle.



Especially after painting, the holes need to be cleared.

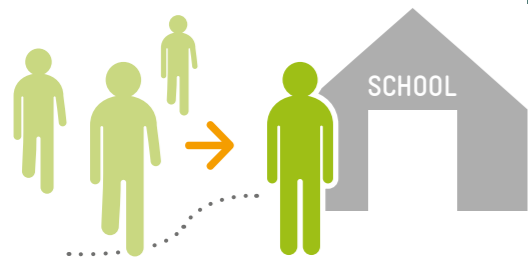


✓ Unclog holes

The drain or basin should be free from rubbish or dirt to prevent clogging.



✓ Keep drain clean



Community Involvement // Cleaning & Maintenance

Regular cleaning and proper maintenance of your facilities ensures daily functionality and saves money in the long run. This can be achieved through simple tasks that should involve students and community members. It is important to agree on the division of tasks and make it clear to everyone who is responsible for each task.

Experiences



Edwin // Parent

"Our school used to have a handwashing station but we had problems with the faucet being stolen every now and then. But now our new facilities only have holes instead of faucets, so there are no more faucets to steal or need fixing. I think it is very practical and it consumes less water too."

Gloria // Principal

"In our school we could not afford a janitor so students have a schedule for cleaning our washing facilities and toilets. Teachers are involved in supervising the students' cleaning activities. If there is anything that needs fixing, they would immediately inform me. Every enrollment period, the parents and community members also help clean, repair, and repaint our facilities. I am proud that our school is able to take care of our facilities very well."



4

Beautification

The visual appeal of the facility makes it a valued feature of the school ground and a source of pride for the community. You can involve the community and use locally available resources to manage the cost of beautification.



→ Beautification

Painting the facility is a low-cost solution for improving the appearance of the facility. Hygiene messages can be painted on the walls to reinforce habit formation.



Plants placed around the facility are easy to water and adds to its visual appeal at little cost.



A roof above the facility allows children to conduct the activities during rainy days.



Experiences



John Mark // Student

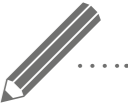
"I got to paint the WASHaLOT together with my friends. I liked helping to choose the colours and now I can see my nice artwork every day when I go to wash my hands and brush my teeth."

May // Nurse

"In the schools where I coordinated the delivery of the WASHaLOT facilities, I asked the teacher to choose some students to paint the facility. Getting the children involved in the beautification made them appreciate this new facility and makes them excited to participate in the daily hygiene activities. Since the children use the facility, it is great that they were involved in the creation."



Notes



A grid of 10 columns and 10 rows of blue water drop icons, intended for taking notes.

Notes



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For more Information on GIZ Fit for School and group washing facilities, please contact Dr. Bella Monse (bella.monse@giz.de)

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