



USER'S GUIDE

# Group Washing Facilities

## Assembly Instructions & Maintenance



# Making Children Fit for School

The Essential Health Care Program EHCP combines three preventive interventions:

**a** Daily handwashing with soap to reduce diarrhea and other preventable diseases



**b** Daily toothbrushing with fluoride toothpaste to reduce tooth decay



**c** Bi-annual deworming to reduce worm infections



The program aims to improve the health of children, so that they can go to school more often and perform better.

## Introduction

Education and health go hand in hand. Children need to be healthy to be fit for school. Sadly, too many children in the Philippines are afflicted by everyday ailments that impact largely on their physical and mental development and limit them from getting the most from their education.

However, many of these diseases and ailments are preventable. There are simple, scientifically proven interventions that greatly limit their occurrence and transmission. The key is good hygiene.

In the Philippines, GIZ is providing technical assistance to the Department of Education in the Autonomous Region in Muslim Mindanao (DepEd ARMM) to improve WASH in Schools. GIZ's support forms Component 2 of the Australian Embassy's Basic Education Assistance to Muslim Mindanao (BEAM ARMM) program. Additional support is provided by the German government through the Federal Ministry for Economic Cooperation and Development (BMZ).

As part of this component, GIZ supports DepEd ARMM to implement their flagship School Health program, the Essential Health Care Program (EHCP). This program focuses on three simple interventions: daily group handwashing with soap, daily group toothbrushing with fluoride toothpaste and bi-annual deworming.

However, healthy habits cannot be formed without the necessary corresponding infrastructure. These school-based group hygiene activities cannot be implemented on a daily basis without functional group washing facilities.

## Table of Content

1. Overview	2
2. Installation	7
3. Cleaning & Maintenance	14
4. Improvement & Beautification	17
5. Challenges with the Facility	18

## The Prefabricated Group Washing Facility for Schools

To enable children to practice daily group handwashing and daily group toothbrushing, your school has been provided with a group washing facility. This facility has been specially designed to ensure functionality. In particular the facility:

- is accessible and designed for a group of children
- assures sustainable functionality
- has a 'self-contained' water source
- is low-cost
- minimizes water consumption
- allows for school community involvement

However, the facility still needs to be installed and, more importantly, maintained. As a school community, it is particularly important that you take the lead in ensuring that the facility is cleaned regularly and repaired as needed. By following this guide to properly install, improve and maintain your facility, you can ensure that it is available for children to practice healthy habits for years to come!

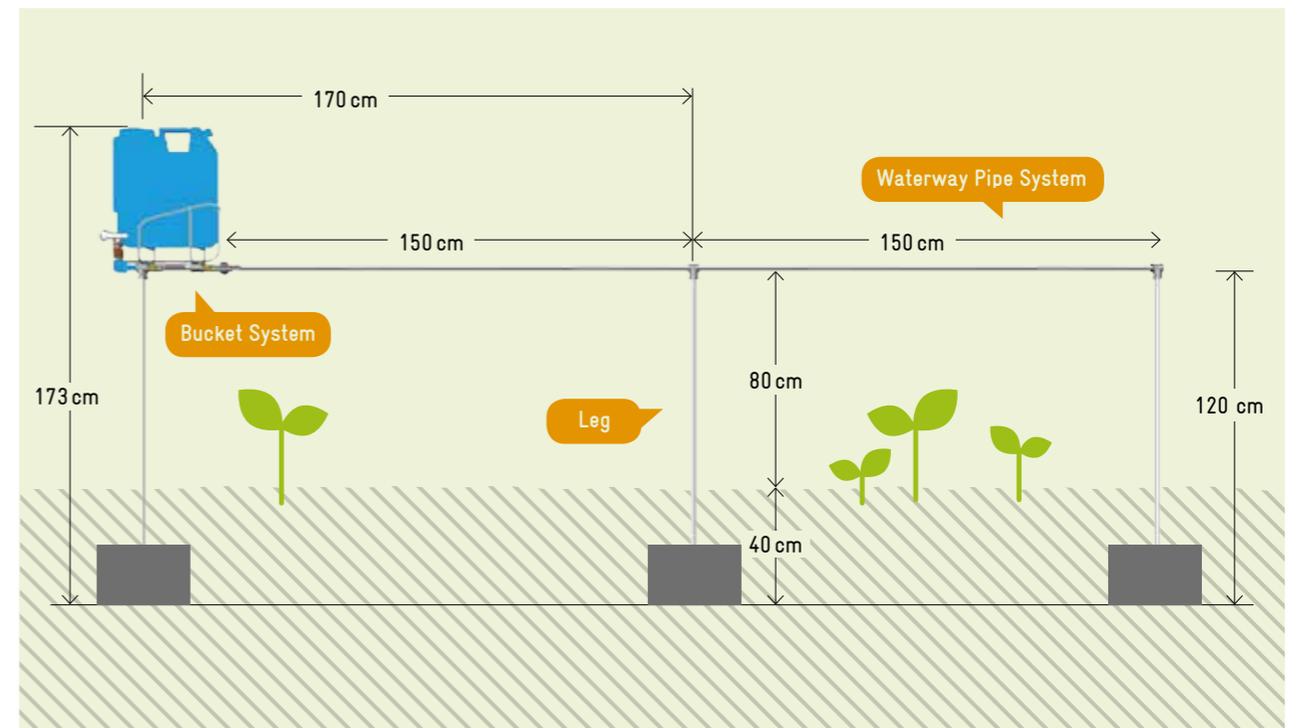
# 1. Overview



### Facts

The entire group washing facility is low cost and minimizes water usage. The 20 l canister provides water for 22 children to wash their hands up to three times a day. Only 115 ml of water per child is required for each handwashing.

## Dimensions



## Guideline // How to Set up Your Group Washing Facility

**Choose the Right Location //** You should make sure that children have access to both sides of the facility and that it does not obstruct them from entering and leaving the school. Place the facility close to the classrooms. You should also make sure that the ground on which it is built is level. If possible the facility should be installed within a fenced or roofed area to prevent theft and to allow hygiene activities in any kind of weather.

**Keep Children in Mind //** Take care that the pipes have the appropriate height to be within the reach of the students who will eventually use it.

**Ensure Water Supply //** If you do not have piped water supply to refill the canister when empty, you should fill the canister with water from a local water source, like a central tank or reservoir. Avoid splashing of water when refilling the canister by using a water hose or an adequate size mouthed canister. Ensure daily refill of canister.

**Drainage //** In some cases, used water can be absorbed by the soil. In other cases it is better to divert the water away from the facility in order to avoid water puddles and mud. In that case, you should make a small trench in the ground in order to divert the water towards one end of the facility. There you can put a bucket or dig a hole in the ground and fill it with gravel to allow drainage. Remaining water in the bucket can be reused, for example to water plants.

**Soap Holder //** Cut soap bars into three smaller pieces and fix the pieces with stockings or a fish net on the water pipe between the holes. After the hygiene activities keep the soap in a dry place, for example in the health corner in the classrooms.

**Cleaning & Maintenance //** Children and adults can help clean the facility. Your school can use a cleaning and maintenance planner to help ensure that the facility is cleaned and maintained. Daily tasks include checking functionality, cleaning the facility and refilling the canister with water.

## Delivered Package

### Group Washing Facility

Material included in the installation package:

- a) 1 Water Pipe System
- b) 3 Posts/Legs
- c) 1 Bucket Holder System
- d) 1 Teflon Tape, 1/2 Tap adaptor, 1/2 Tap adaptor with attached plug (placed inside the bucket)



## Tools Required

School stakeholders need the following tools to install the group washing facility

- a) 2 Pipe Wrenches
- b) 1 Measuring Tape
- c) 1 Water Level
- d) Shovel and Digging Bar
- e) Cement



## 2. Installation

### → Step 1: Choosing the Right Location

In choosing where to install the facility – the school community must consider the aspects as stated in the guidelines in installing the facility in page 6. To best select the location – consider the following aspects;

#### Checklist

##### Area:

- It should be near the classroom and/or the toilet.
- Having a nearby water source and placing the facility in a shaded area can be advantage.

##### Drainage:

- Plant boxes in front of the classrooms can be utilized to serve as drainage for the used water from the facility.

##### Space:

- There must be enough space on both sides of the facility for the children to access it.



## → Step 2: Assembly Instructions

Apply Teflon on the threaded part of the punched water pipe and join the two water pipes.

Make sure all 10 holes are facing to the ground before securing it with a wrench.



Connect the bucket component to the water pipe in the provided union patente. Don't forget to apply Teflon on the patente before fastening,

Check that all holes are facing to the ground.



Attach the three posts to the free end of the welded tee connections. No Teflon is necessary since water will not flow in this side.



## → Step 3: Installing the Facility

Lay the assembled facility in the selected location and mark the points for digging.



Dig the marked area.

The holes need to be at least 30 cm wide and 20 cm deep in dimension.



Position the facility on the holes.  
Hammer the top part of the welded tee connection to partially bury the bottom part of the post until the height of the water level from the ground is between 70 cm – 90 cm.

When hammering use a wood to cushion the impact of hammering on the welded tee connection.



Using a water level, make sure that the water pipe is horizontal and the posts are upright.



In the bottom part of the hole near the post – put some fist sized stones and compact the stones using the digging bar.



## → Step 4: Testing and Cementing

Look for the tap adaptor that is inside the bucket. Connect the tap adaptor to the faucet in the bucket.



Fill the bucket with water until the halfway mark and mount it in the facility.

Let the water flow into the facility and check for leaks.

If there are leaks re-apply teflon into the leaking area or tighten the PVC lock inside the bucket.



Mix 10 kg (approximate) of cement, 40 kg (approximate) of mixed sand and gravel, and water.



Pour equal part of wet sand-cement mix in the three holes.

Put also stones in the hole while pouring the wet sand-cement mix in the hole to make the foundation more rigid.



Flatten the cement and let it dry for a day before using the facility.



## 3. Cleaning & Maintenance

### → Bucket

The bucket has to be refilled every day with clean water to avoid silt and dirt entering the facility.



After using the facility – detach the bucket from the facility and keep it inside the classroom for safekeeping.



During no class, mount the tap adaptor with plug in the connector to cover the open end of the facility.



Clean the bucket once or twice a week to avoid the water getting contaminated.

Use a wet cloth or a sponge to clean the bucket inside and out.



## → Pipes

If the holes get clogged it can be cleared using a needle or a pin in similar item.



Once every six months, the inside of the pipe must be cleaned. Open the service entrance found in the opposite end from the bucket. Use a wrench to open the service entrance.



To clean the insight of the pipe, Use a bottle brush or cloth attached to a long rod.



## 4. Improvement & Beautification

### Decoration

- Paint the pipes colourfully for beautification purposes.



### Low-cost Material

- Use a flower or vegetable bed for drainage to beautify the drainage. Grey water from handwashing with soap and toothbrushing can be used for irrigation of plants.



### Protection

- Build a roof over the facility to provide it better protection, so you can use it come rain or shine.
- Construct a fence around the facility to avoid misuse.



# 5. Challenges with the Facility

Problem	Prevention	Remedy/ Solution
<input type="radio"/> Clogged holes .....	<input type="radio"/> Be sure to use a water that is free of dirt and silts <input type="radio"/> Bi-annual cleaning of water pipe thru the service entrance .....	<input type="radio"/> Clear the holes using a pin or needle .....
<input type="radio"/> Accumulation of dirt in the bucket .....	<input type="radio"/> Avoid using dirty water .....	<input type="radio"/> Clean the insight of the bucket using cloth or sponge whenever there is sighting of dirt in the bottom part of the bucket .....
<input type="radio"/> Corrosion of metal parts .....		<input type="radio"/> Apply paint to the metal parts of the facility .....
<input type="radio"/> Damaged bucket .....	<input type="radio"/> Detach the bucket every after class and safely keep inside the room .....	<input type="radio"/> Replace the damaged bucket. In the new bucket – use the faucet from the damaged bucket .....
<input type="radio"/> Wet ground below the facility .....		<input type="radio"/> Put a gravel bed directly below the facility including the area where the children stands and/or construct a plant box below the facility .....
<input type="radio"/> Leaking in the bucket component .....	<input type="radio"/> Do not twist the faucet if unnecessary to prevent leaking .....	<input type="radio"/> Re tighten the lock of the faucet that is located inside the bucket <input type="radio"/> Re-apply Teflon tape to leaking parts .....
<input type="radio"/> Leaking in the union patente connection .....	<input type="radio"/> Avoid children playing near the facility .....	<input type="radio"/> Re-apply Teflon on the threaded part of the union patente and carefully fasten the union patente .....
<input type="radio"/> The facility is moving or shaking. .....	<input type="radio"/> Avoid children playing near the facility. And always empty the bucket when not in use and detach it from the facility .....	<input type="radio"/> Reinforce the facility using braces on each end of the facility .....
<input type="radio"/> Water splashing .....		<input type="radio"/> Construct a basin to catch the grey water or construct a plant box below the facility .....
<input type="radio"/> The facility exposed to the sun .....		<input type="radio"/> Build a roofing for the facility .....

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