Keeping Education Running: WASH Interventions in Schools

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Agenda

- WASH in Schools in the SDGs
- Group Handwashing – Concept and Context
- Basic principles of Group Handwashing
- Experiences from the Fit for School Programme
- UNICEF / GIZ: Compendium of Group Handwashing Facilities
## SDG Target for WinS

<table>
<thead>
<tr>
<th>SDG Target</th>
<th>Drinking water</th>
<th>Sanitation</th>
<th>Hygiene</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No service</strong></td>
<td>No water source or unimproved source (unprotected well/ spring, tanker-truck surface water source)</td>
<td>No toilets or latrines, or unimproved facilities (pit latrines without a slab or platform, hanging latrines, bucket latrines)</td>
<td>No handwashing facilities at the school or handwashing facilities with no water</td>
</tr>
<tr>
<td><strong>Limited service</strong></td>
<td>There is an improved source (piped water, protected well/ spring, rainwater, bottled water), but water not available at time of survey</td>
<td>There are improved facilities (flush/pour flush, pit latrine with slab, composting toilet), but not sex-separated or not usable</td>
<td>Handwashing facilities with water, but no soap</td>
</tr>
<tr>
<td><strong>Basic service</strong></td>
<td>Drinking water from an improved source is available at the school</td>
<td>Improved facilities, which are single-sex and usable at the school</td>
<td>Handwashing facilities, which have water and soap available</td>
</tr>
<tr>
<td><strong>Advanced service</strong></td>
<td>To be defined at national level</td>
<td>To be defined at national level</td>
<td>To be defined at national level</td>
</tr>
</tbody>
</table>
SDG Baseline results (JMP 2016)

**Drinking Water**
- No Service: 19
- Limited: 12
- Basic: 69

**Sanitation**
- No Service: 23
- Limited: 12
- Basic: 66

**Hygiene**
- No Service: 36
- Limited: 11
- Basic: 53
The Challenge

- All Schools by 2030 should have handwashing facility with water and soap.

- Facilities which can accommodate hygiene activities of many children at the same time in an effective and efficient way are needed.

- Emerging need for group washing facilities which can accelerate scale up hygiene practices.
Learning from the past

- SARS and H1N1 hit Asia in 2005
- Department of Education of the Philippines released DO 56, 2009 mandating schools to provide handwashing facilities and practice handwashing once a day at school
- Schools build group handwashing facilities on their own thus various types of group washing facilities were developed
Common problems of handwashing facilities

• Taps easily got broken or stolen
• High water consumption
• Water unavailable or Insufficient water pressure
• Low quality of construction
• Short service life of materials being used
• Unavailability of skilled labor to construct group handwashing facilities in remote areas
Demand for a standardized Group Washing facilities

• Durable and assures functionality
• Independent from piped water supply
• Low cost (Construction and O&M)
• Minimizes water consumption
• Allows community involvement
• Can be prefabricated
**ESSENTIAL ELEMENTS**

- Facility number and size
- Facility material and design
- Water supply and consumption
- Soap and other consumables

**HARDWARE INPUT**

**THREE STAR APPROACH FOR WASH IN SCHOOLS**

- SUFFICIENT, APPROPRIATE, AND USABLE FACILITIES, WATER AND CONSUMABLES FOR GROUP HYGIENE ACTIVITIES
- CAPACITIES AND EFFECTIVE MANAGEMENT FOR WASH AT SCHOOL LEVEL

**SOFTWARE AND MANAGEMENT INPUT**

- WASH as part of school improvement plan
- Schedule of daily group activities
- Sustainable supply of consumables
- Schedule for operation and maintenance
- Monitoring and evaluation of activities and facilities

**DAILY GROUP HYGIENE ACTIVITIES IN SCHOOLS**

Source: UNICEF, GIZ (2013)
Scaling up Group Handwashing in Schools

COMPREHENSIVE GUIDE TO HANDWASHING FACILITIES ACROSS THE GLOBE

Published by FIT FOR SCHOOL INTERNATIONAL

german cooperation giz unicef
ADVANTAGES:
- Flexible water sources.
- Durable construction.

LIMITATIONS:
- Higher water consumption.
- Refilling needs to be managed.

RECOMMENDATIONS:
- Smaller diameter of water pipe.
- Minimize water consumption by using a punched pipe.

<table>
<thead>
<tr>
<th>DESIGN STRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of students</td>
</tr>
<tr>
<td>Water source</td>
</tr>
<tr>
<td># water faucets</td>
</tr>
<tr>
<td># students who can use the facility at the same time</td>
</tr>
<tr>
<td>Overall water consumption per handwashing station for one group handwashing activity</td>
</tr>
<tr>
<td>Piping</td>
</tr>
<tr>
<td>Basin</td>
</tr>
<tr>
<td>Disposal of waste water</td>
</tr>
<tr>
<td>Type of facility structure</td>
</tr>
<tr>
<td>Expected durability</td>
</tr>
<tr>
<td>Time needed for construction of parts and installation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USABILITY ASPECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable from both sides</td>
</tr>
<tr>
<td>Individual handwashing</td>
</tr>
<tr>
<td>Usable by differently-abled children</td>
</tr>
</tbody>
</table>
## Construction, Operation & Maintenance

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation - use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance - occasional repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance - daily cleaning &amp; refilling of water (high water consumption)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Community Involvement

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>School Shura (including teachers, students and the community) and principal were involved in quality control</td>
</tr>
<tr>
<td>Installation</td>
<td>School staff and Ministry of Education staff</td>
</tr>
<tr>
<td>Enhancement/beautification</td>
<td>School staff and School Shura</td>
</tr>
<tr>
<td>Daily cleaning</td>
<td>Cleaners</td>
</tr>
<tr>
<td>Refilling of water</td>
<td>Cleaners</td>
</tr>
<tr>
<td>Regular facility maintenance</td>
<td>School principal, head master, cleaners; child clubs are involved in monitoring</td>
</tr>
</tbody>
</table>

## Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average material cost</td>
<td>441.00 USD</td>
</tr>
<tr>
<td>Average labour cost</td>
<td>250.00 USD</td>
</tr>
<tr>
<td>ITEMS</td>
<td>UNIT</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>GI pipe, 3 inch</td>
<td>m</td>
</tr>
<tr>
<td>GI reducer, 3 x 1 inch</td>
<td>pcs</td>
</tr>
<tr>
<td>GI cap, 3 inch</td>
<td>pcs</td>
</tr>
<tr>
<td>Brass faucet, 1/2 inch</td>
<td>pcs</td>
</tr>
<tr>
<td>Drain PVC pipe, 2 inch</td>
<td>m</td>
</tr>
<tr>
<td>PVC 90 degree bend, 2 inch</td>
<td>pcs</td>
</tr>
<tr>
<td>GI sheet metal, 1 x 6 m, including steel supports</td>
<td>lump-sum</td>
</tr>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
Development of Handwashing Facility Prototype

GIZ is currently developing a low-cost, low-tech prototype that can be distributed widely to schools. It should address functionality challenges. The facility will be minimal and schools can choose to add additional features.

WASH in All Schools Webinar
20.08.2013
Why prefabricated?

• A pre-fabricated facility helps schools to prevent ‘re-inventing of the wheel’, making use of all learnings gathered in many places.

• A pre-fabricated facility ensures quality and efficiency for local production, in a centralized place of the region/province where it can be produced and distributed to respective schools.
WASHaLOT 3.0

2017 - present
High density polyethylene pipe with 10 individual stainless steel water outlets
Operation, Cleaning and Maintenance
Daily Group Hygiene Activities in School – What does it need?

Technical aspects/hardware

Institutional aspects
School principal as key actor...

- School leadership
- Keep the school clean
- Support regular monitoring
- Motivate and guide implementation
- Ensure sustained implementation quality
- Mobilize and allocate resources
- Be a role model for teachers and students
- Integrate WASH in School Improvement Plan
- Link with local authorities & decision makers
- Mobilize parents and community

...strengthen School-based Management (SBM) capacities of school principals
Example in Laos: Collaboration with WFP

At baseline:
- No school conducted organized group handwashing, but children had a habit of just wetting hands prior to eating

After program implementation:
- All schools practiced group handwashing except for days where school feeding was not done
Handwashing practice: time and water consumption

- **14.5 minutes** is the estimated time it takes a school to complete handwashing before eating for all students (around 90 kids):

- **136 ml per child** water consumption per handwashing event.

- However, **around 1.4 liters per child** is consumed with conventional handwashing.
Take home message

• Regular handwashing with soap needs functioning facilities and availability of supply

• Facilities need to allow for ALL children to allow handwashing with soap in short time

• Only group handwashing facilities will allow for all Children to develop handwashing habits in school
Every week, 3 million people move to a city.
This has created an untenable situation.
Nestled in every one of these low-resource neighborhoods is a unique conduit to the larger community.
A place where you can find the highest concentration of children of the urban poor:
A public school.
Some are small.
Others are massive.
All are full to the brim with limitless potential.
The vast majority, though, aren’t safe for an education.
Water either isn’t adequate in volume or potable in quality.
Handwashing solutions often lack creativity.
Handwashing stations often fall into various states of disrepair.
Or completely fail and turn into a gravestone of wasted resources.
Toilets routinely lack adequate lighting, ventilation, lockable and functioning doors.
Even when they do, infrequent cleaning and waste removal render most toilets useless.
Hygienic cleansing after defecation is a rarity.
Everything we do starts with safe water.
Private sector solutions & technicians are the first step.
Ensuring adequate water volume to the school is critical.
Uninterrupted supply in water scarce regions requires abundant storage.
Water use must be segregated by activities clearly and consistently.
Behavioral nudges can be built into the hardware.
Soap availability is the linchpin that ties it all together.
Leverage what exists, make it a reality when it doesn’t.

**CUSTOMIZABLE BACKSPLASH:**
Space for organisations to recognize donors or to promote hygiene behaviors.

**DIFFERENTIATED USE:**
Different colors and basin depths for handwashing and drinking stations can promote separation of behaviours and reduce disease transmission.

**GROUP HANDWASHING:**
Sides angled at 45 degrees per evidence that face-to-face handwashing promotes better hygiene.

**HYGIENIC SURFACES:**
Smooth surfaces with rounded corners make cleaning simple.

**DURABLE, ECO-FRIENDLY PLASTIC:**
High quality, fade-resistant HDPE (the same material used for underground water piping) with recycled content.

**BEHAVIOUR-CENTERED DESIGN:**
The drinking station has a bubbler on the right side in line with social norms that discourage using the drinking fountain with the left hand.

**ACCESSIBLE MAINTENANCE:**
An access hatch means internal components are in reach in case they need to be serviced or replaced.

**AGE-APPROPRIATE DESIGN:**
An optional riser means this station can serve a variety of ages, from kindergarten to secondary school kids.
Manufacturing locally should be the goal.
Work closely with the government at every step.

1. Integrated water storage utilizes existing structural integrity of facility and helps ensure water is available onsite.
2. Modular design means facility can easily adapt by adding two stalls at a time.
3. Roof design maximizes airflow and natural light filtration.
4. Design includes optional ramp and appropriately sized entrances and hallways for children with special needs.
5. Design utilizes materials readily available on the local market in Addis, making it constructable and cost-effective.
Strengthen existing designs for true durability.

1. Roof design maximizes airflow and natural light filtration.
2. Dedicated space for handwashing stations and mirrors ensures critical hygiene infrastructure is front and center.
3. Entrances promote user privacy while allowing enough space for teachers to observe behavior.
4. Design includes optional ramp and appropriately-sized entrances and hallways for children with special needs.
Strengthen existing designs for real functionality.

1. Stalls designed to ensure user’s privacy and safety
2. Dedicated space for mirrors helps girls feel at ease during their periods
3. Roof design maximizes airflow and natural light filtration
4. Wider corridors improve traffic flow
5. In-stall features include secure locks, taps, and hooks to hang personal items. Girls’ stalls include trash cans and small shelves
Focusing on janitors is key to any WinS program.
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Student clubs lead the school-wide initiatives.
Supporting materials re approved by students.
They are the voice of the program in the school.
They are the face of the program in the school.
Sometimes, they are the enforcers, too.
Empowering students to lead the charge.
Even on the toughest of topics, like MHM.
Menstrual health groups to provide training and promote dignity.
MHM requires parent involvement, too.
Teachers are the last line of defense.
Reinforced messaging from teachers is critical.
Strengthening the teacher community to ensure sustainability.
Whole school refresher trainings can be fun!