

MINIMUM STANDARDS FOR ADVANCED SERVICES IN SCHOOLS BASED ON JMP SERVICE LADDER, INTERNAL & EXTERNAL GUIDELINES

Disclaimer

This document is an attachment to the service offer **Construction/Rehabilitation of WASH Infrastructure in Schools**, developed by the global programme *Sanitation for Millions*. The service offer is based on implementation experiences gathered by the programme in Jordan, Pakistan, and Uganda. Its development is part of the commission through the Federal Ministry for Economic Cooperation and Development (BMZ) in 2023. Purpose of this specific service offer is to give an overview of relevant background information, important minimum standards, and necessary working steps related to construction and rehabilitation of water, sanitation, and hygiene (WASH) infrastructure in schools.

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Sanitation for Millions' Minimum Standards for WASH in institutions (based on JMP service ladder)

	Schools	Religious Institutions	Health Care Facilities
Sanitation for Millions' requirements for Sanitation (Advanced Services)	Facilities are accessible to all, of adequate quality , provided with an adequate O&M system and are regularly inspected for cleanliness. Toilets are inclusive and female-friendly . Sewage and excreta are safely managed .	Facilities are accessible to all, of adequate quality , provided with an adequate O&M system and are regularly inspected for cleanliness. Toilets are inclusive and female-friendly . Sewage and excreta are safely managed .	Facilities are accessible to all, of adequate quality , provided with an adequate O & M system and are regularly inspected for cleanliness. Toilets are inclusive and female-friendly . Sewage and excreta are safely managed .
Sanitation for Millions' requirements for Hygiene (Advanced Services)	Handwashing facilities are functional at critical times (before eating and after using the toilet) and accessible to all, hygiene education is conducted, group handwashing is promoted, menstrual hygiene materials are available and awareness on MHM is created.	Handwashing facilities with water and soap are available after using the toilet, and accessible to all users. Safe hand-hygiene is promoted.	Availability of hand hygiene educational materials near handwashing stations and/or the patient waiting area, handwashing facilities are accessible to all staff members and patients. Waste is managed adequately, and IPC is addressed. Basic protocols for cleaning are available, and staff with cleaning responsibilities have all received training .
	Basic Service		
	Limited Service		
	No service		

Schools

“Advanced services” translated into criteria (our minimum standards in simple words)

Water:	Sanitation:	Hygiene:
<p>In all participating schools</p> <ul style="list-style-type: none"> ▪ Safe drinking water is always available when students and staff are at the school ▪ Safe drinking water is accessible for all (students & staff) ▪ Improved water supply within the school is available ▪ Water storage/harvesting systems in place. <i>(Not mandatory, but desirable)</i> ▪ Plans for cleaning of drinking water sources and dispensers are developed and implemented. ▪ Sufficient supply of water for cleaning 	<p>In all participating schools</p> <ul style="list-style-type: none"> ▪ Sanitary facilities are not locked when students are at school. ▪ Sanitary facilities are accessible when students are at school. ▪ Sanitary facilities apply “improved” technology. ▪ Sanitary facilities are robust and appealing. ▪ Toilets fulfil the people stance ratio as prescribed in national policies. ▪ Toilets are sex segregated <i>(in case of mixed-gender schools)</i>. ▪ Toilets are separately available for pupils and staff ▪ Toilets are “private” (can be locked from inside). ▪ Sanitary facilities are clean and functional. ▪ Anal cleaning materials are available at all toilets. ▪ Schools have one or more rooms for MHM, incl. a functional disposal system for MH consumables <i>(in case of girl schools or mixed-gender schools)</i>. ▪ Schools have one or more “barrier free” toilets for people with impaired mobility. ▪ An inspection system for the routine monitoring of sanitary facilities (cleanliness and functionality) is established and practiced. ▪ WASH budgeting (incl. O&M planning) is considered during the financial planning of the school. ▪ Sanitary facilities are either connected to a sewer system or a septic tank of which sludge is regularly emptied, transported, and treated safely off site. ▪ WASH (as topic) is integrated in school’s curricular or extra-curricular activities ▪ Institutionalization of WASH clubs. <i>(Not mandatory, but desirable)</i> 	<p>In all participating schools</p> <ul style="list-style-type: none"> ▪ Handwashing facilities are functioning, and accessible to all at critical times (before eating and after using the toilet). ▪ Handwashing facilities fulfil the required number as prescribed in national policies. ▪ Handwashing facilities are available near toilet facilities ▪ Soap is available at all handwashing facilities. ▪ Plans for hygiene education for students and staff are developed and implemented. ▪ Plans for safe hand hygiene promotion are developed and implemented. ▪ Information materials on sanitation and hygiene promotion (i.e. handwashing, good toilet use etc.) are available ▪ Information materials on MHH are available <i>(in case of mixed-gender schools)</i>. ▪ Awareness creation on MHH is done <i>(in case of girl schools or mixed-gender schools)</i>. ▪ Menstrual hygiene products (MHM emergency kits) are available for the students in case of “emergency” <i>(in case of girl schools or mixed-gender schools)</i>.

Additional Information (Internal & External Guidelines)

General Technical Minimum Standards to be followed

Dimension	Topic	Standards	Reference
Technical	Durability	Durability is highly considered in the design of toilets, washbasins (e.g. trough), door handles, locks, taps, flushing systems etc.	GIZ internal
		Only hardwearing materials are selected (concrete, stainless steel, glazed ceramic tiles etc.).	GIZ internal
		Use of waterproof materials and sealing (floor, walls, ceiling, rooftop etc.) is considered to avoid water leakages.	GIZ internal, WHO 2009
		Water drainage is considered in detail. Drainage gullies and channels should be protected by suitable and lockable gratings.	GIZ internal
	Cleaning & Maintenance	Facilities are easy to clean and maintain.	GIZ internal, WHO 2009
		Lockable storage space for cleaning materials and tools is provided.	GIZ internal
		Male and/or female cleaning and maintenance staff is employed according to the institution's needs.	GIZ internal
		A cleaning plan is developed jointly with the institution's management and cleaning staff.	GIZ internal
		A maintenance is developed jointly with the institution's management and cleaning/maintenance staff.	GIZ internal
		A strategy on how to provide consumables is developed jointly with the institution's management.	GIZ internal
	Toilet-User Ratio	<i>Specific for schools: 1 toilet/25 girls/women and 1 toilet plus 1 urinal/50 boys/men are provided according to WHO/UNICEF standards.</i>	WHO 2009
		<i>Specific for schools: 1 water tap/washbasin per 2 toilet units is provided. Group handwashing facilities should accommodate minimum 10 students.</i>	USAID 2014, GIZ internal
	Accessibility	Restrooms and toilets fulfil ISO 21542 accessibility standards.	ISO 21542
		Ramps provide access to the school premises, building and sanitary facilities and are in line with national standards	GIZ internal
		Heights of door handles, flushing, toilets, washbasins, taps etc. are adapted to the users' needs (e.g. lower and higher washbasins for younger and older students and wheelchair users).	GIZ internal
	Gender Sensitivity & Child Friendliness	Gender-separated toilets (with separated entrances) are provided.	GIZ internal
		Mirrors are included in the design.	GIZ internal
		During construction measures, the site is protected and inaccessible to the public. If needed, mobile latrines/sanitary containers are installed to provide sanitary facilities during rehabilitation works.	GIZ internal

	Doors to toilet units should provide enough privacy.	GIZ internal
	<i>Specific for schools: Restrooms are located close to the classrooms and the paths to the restrooms are well illuminated.</i>	GIZ internal
	<i>Specific for schools: The design is child-friendly (e.g. colourful, can be used by the respective age groups).</i>	GIZ internal
	<i>Specific for schools: premises are secured by e.g. day/night guards, perimeter walls (minimum height 1,80m), highly durable and lockable gates and/or installation of surveillance cameras</i>	USAID 2014, GIZ internal
	<i>Specific for schools: The entrance to the restrooms should be, if possible, open (to avoid harassment and bullying) and L- or S-shaped (to allow enough privacy).</i>	USAID 2014
MHM & Solid Waste Management	For each toilet unit, 1 <u>cover</u> -bin (stainless steel) is provided. Discreet and safe disposal of sanitary pads is taken into account (MHM).	GIZ internal
	The whole sanitation chain (toilet interface – collection – transport - treatment – reuse/disposal) is assessed and rehabilitated if needed.	GIZ internal
Water Supply	If no daily water supply from the central network is ensured, water storage should be included in the design. Durable, plastic water tanks should have a capacity according to the institution's water supply and demand.	GIZ internal
	The provision of drinking water (e.g. drinking water fountains, filter in taps) should be considered.	GIZ internal
Ventilation, Lighting & Isolation	Ventilation is considered in the design (to reduce odor problems to a minimum). If possible, enough windows to allow continuous fresh air exchange should be provided.	GIZ internal, USAID 2014
	Enough lighting is provided (for each toilet unit, washbasin and outside of the restroom). If possible, daylight should be the main source of lighting.	GIZ internal, USAID 2014
	Cost- and energy-efficient isolation is considered in the design.	GIZ internal, USAID 2014
National Building Codes	The technical design is in line with national building codes and relevant guidelines of the respective national authorities.	GIZ internal
Scalability	The design has a modular character providing opportunities for upscaling.	GIZ internal
Fire Protection	Constructed/rehabilitated WASH facilities should meet the locally valid regulations on fire protection for institutions. An institution-wide concept for extinguishing acute fires should be existing.	GIZ internal

General Sustainability Minimum Standards to be followed

Dimension	Topic	Standards	Reference
Ecological	Environmental Impact	Environmental Impact Assessments (EIAs) are carried out before implementing waste water treatment or solid waste management systems.	GIZ internal
	Water Efficiency	Rainwater and greywater is reused for flushing or irrigation, if possible.	GIZ internal
		Water-efficient taps (e.g. incl. water-saving devices) and flush systems are installed.	WHO 2009
		Installation of flushing toilets (10-20l/person/day) or pour flush toilets (1.5-3l/person/day) is considered.	
	Energy Efficiency	A main electricity switch is installed.	GIZ internal
		Low voltage electrical installations are considered.	USAID 2014
		Ceiling fans are installed (instead of ACs), if needed.	GIZ internal
		Solar panels, biogas or other renewable energy sources are considered.	GIZ internal
	Materials & Waste Management	Environmentally friendly and resource-efficient materials are used.	GIZ internal
		Old building components are recycled, if possible.	GIZ internal
Bins are provided and a plan on waste collection and disposal in line with national health and environmental standards is in place.		GIZ internal	
Social	Socio-Cultural Acceptance & Local Conditions	The type of toilet is selected according to the common type used in the community.	GIZ internal
		Toilet paper and/or hose/tap/bodna are provided according to what is common in the community.	GIZ internal
	Health & Hygiene Awareness	Visitors and staff are aware of the value of an improved sanitation and are willing and motivated to engage in improving the existing sanitary system.	UNILEVER and LSHTM 2016
		<i>Specific for schools: Teachers/staff/parents engage in interactive age-appropriate and gender-sensitive activities to promote the value of water, sanitation and hygiene.</i>	GIZ internal, SDC and UNICEF 2017
		<i>Hygiene promotion activities cover the following topics: Appropriate use, cleaning and maintenance of sanitary facilities, handwashing at crucial moments and safe disposal of waste and wastewater.</i>	
	Health & Hygiene	<i>Specific for schools: Teachers/staff/parents engage in interactive age-appropriate and gender-sensitive activities for students to practice handwashing and tooth brushing.</i>	GIZ internal

	Behaviour Change	<i>Teachers/staff/parents engage in interactive age-appropriate and gender-sensitive activities for students to teach water saving and water efficiency.</i>	GIZ internal
		<i>Specific for schools: Teachers/staff/parents engage in interactive age-appropriate and gender-sensitive activities for students to create a sense of ownership for the sanitary facilities (e.g. involving students in the rehabilitation of sanitary facilities).</i>	GIZ internal
		Education materials for interactive WASH activities have been developed and are available to the institutions.	GIZ internal
		Staff have been trained (if needed) to implement WASH activities.	GIZ internal
Economic	Cost Efficiency	Cost-efficiency is considered in the design to reduce capital and operational costs (materials, services, maintenance, water, electricity).	GIZ internal
	Budget Management	A specific share of the institution's budget is allocated to soap.	GIZ internal
		A specific share of the institution's budget is allocated to cleaning and maintenance (personnel, material, tools, etc.)	GIZ internal
	Local Market & Job Creation	Purchase of goods and services on the local market, if possible.	GIZ internal
		Additional positions for cleaning and maintenance (janitor) are created by the respective Ministry and according to the institution's needs.	GIZ internal
		Additional positions for the implementation of hygiene activities are created by the respective Ministry and according to the institution's needs.	GIZ internal
		Additional positions for the cleaning and maintenance of decentralized/on-site wastewater treatment plants are created by the respective Ministry and according to the institution's needs.	GIZ internal

Exemplary Requirements for Accessible / Barrier Free Toilets, based on Uganda (2019)

Crucial for the design of an accessible toilet is the provision of sufficient space for wheelchair users or people using other equipment, the instalment of easy-to-use amenities at a convenient height and the provision of adequate handrails and grab bars to assist people moving from a wheelchair or people with reduced strength.

Following shows selected examples of requirements of barrier-free toilets as described in the Building Control Code (Accessibility Standards For Persons with Disabilities), gazetted in Uganda in 2019. They are an example of standards the Sanitation for Millions programme must adhere to, when building barrier-free toilets in Uganda. The following highlights some of these standards valid in Uganda. For further details, it is referred to the original document *Uganda (2019): STATUTORY INSTRUMENTS 2019 No. 52; THE BUILDING CONTROL (ACCESSIBILITY STANDARDS FOR PERSONS WITH DISABILITIES) CODE, 2019*. In other countries, the standards might differ slightly, and must be identified prior to any construction activity. Besides nationally valid standards, the programme considers in its designs of barrier free sanitation facilities also other guidelines, for example the guideline *Promoting Access to the Built Environment* by CBM (2008), and especially the resp. ISO-norm. Herewith it is particularly referred to *ISO/FDIS 21542 Building Construction – Accessibility and usability of the built environment*, which builds an essential element of Sanitation for Millions' design works.

Signage

- A toilet facility used specifically by a person with disability must be clearly marked with an international symbol. The symbol as shown in the figure should be at the main entrance of the facility.



Figure 1: Signage, Uganda (2019)

Accessibility

- There must be suitable access for a person with disability, with a turning space allowance for a wheelchair outside and within the WASH facility. Dimensions as specified in the illustration should guarantee externally and internally enough space for moving with a wheelchair. The clear width of the walking surface should not be less than 1200 mm and should not be reduced by any protruding object.



Figure 2: source Uganda (2019)

Floor or ground surface

- A floor or ground surface should form an integral part of the accessible route throughout a site internally and externally as part of a continuous path of travel.
- A floor or ground surface must be stable, firm, and slip resistant under wet or dry conditions.

Doorway and door

- A doorway should allow free access for a wheelchair user, with a clear opening, where a two-leaf door is used, the clear opening provided by the leading leaf should be at least 900mm when approached along a line perpendicular to the opening as in figure 3. The minimum access dimensions shall enable a wheelchair user to make a ninety-degree turn.

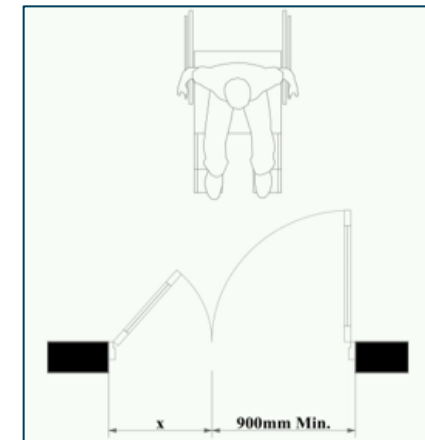


Figure 3: source Uganda (2019)

Ramps

- A ramp should provide a safe, comfortable, and convenient route for a wheelchair user. It should be provided where level access cannot be achieved, should have a gradient measured along the centre line, that is not steeper than 1:12 with handrail where applicable.

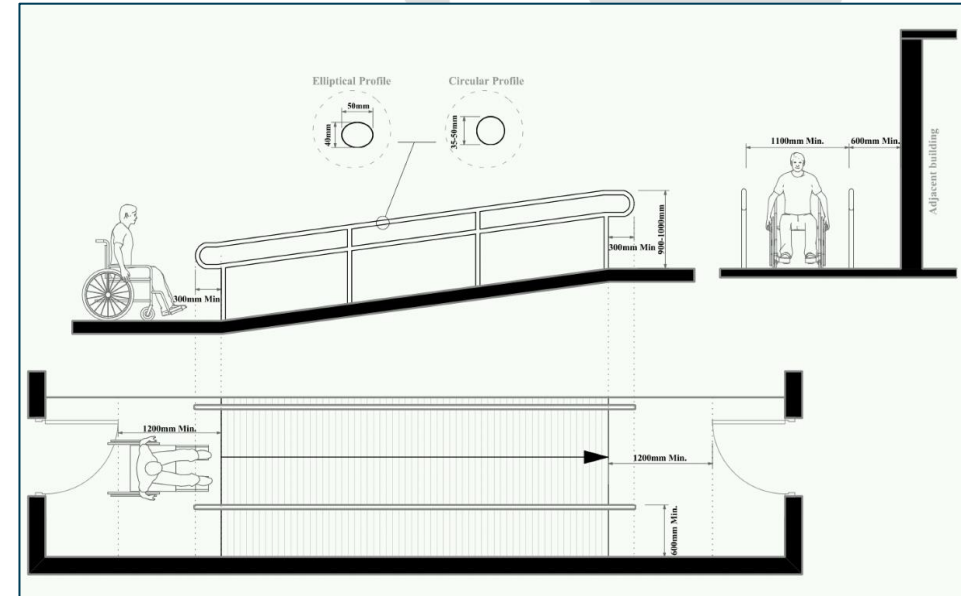


Figure 4: source Uganda (2019)

Exemplary Illustration of a Clean and Female Friendly Toilet, based on Fit For School's MHM Concept

This illustration by Fit For School shows, how a clean and female friendly toilet should be designed and could look like. It incorporates basic features, but small differences might be necessary due to cultural context, or different approaches of the implementing organisation. This example serves as an exemplary illustration.

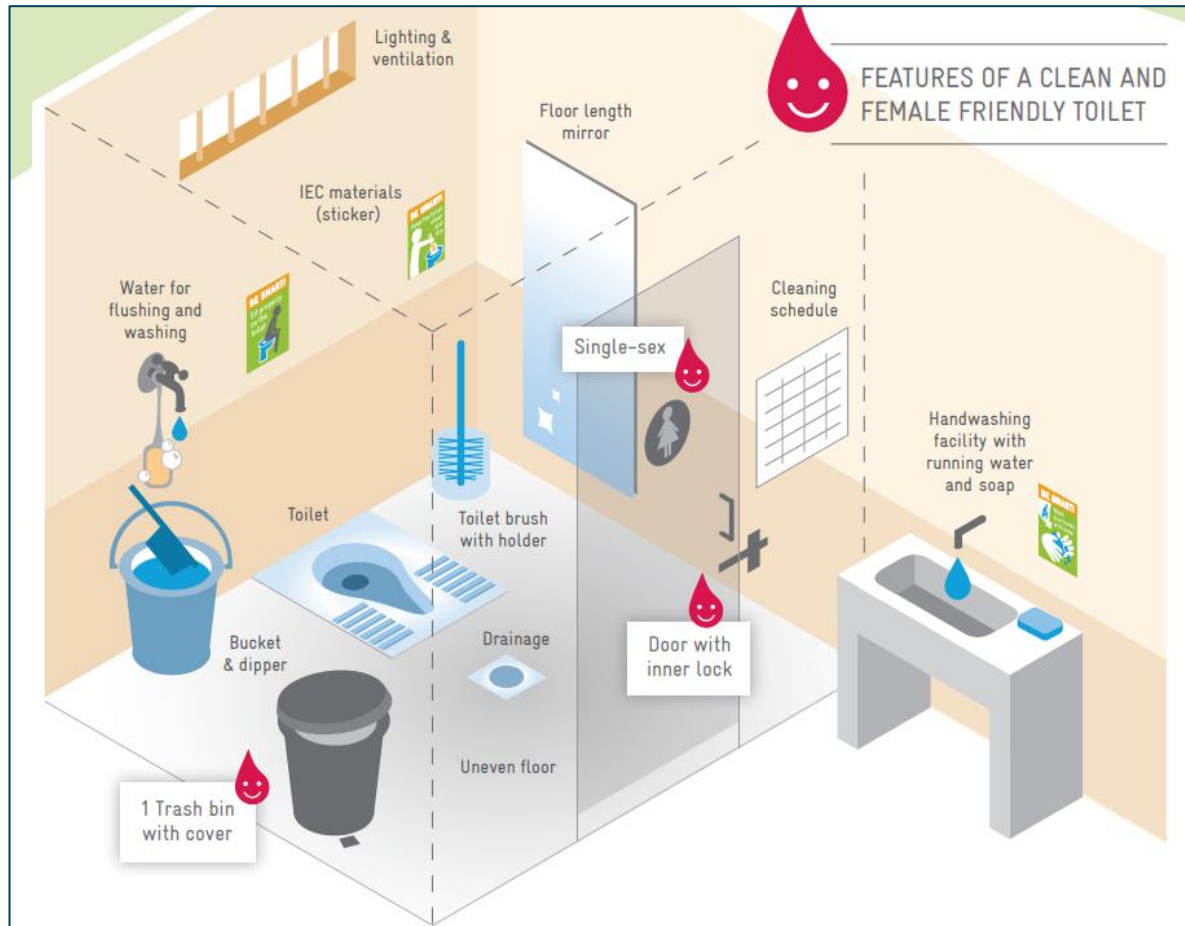


Figure 5: Features of a clean and female friendly toilet, as promoted by Fit For School

Sources

- **CBM (2008):** *Promoting Access to the Built Environment - Guidelines*
- **FIT FOR SCHOOL (undated)** // **CONCEPT - MENSTRUAL HYGIENE MANAGEMENT**
- **ISO (2011):** *ISO/FDIS 21542 Building Construction – Accessibility and usability of the built environment*
- **Uganda (2019):** *STATUTORY INSTRUMENTS 2019 No. 52; THE BUILDING CONTROL (ACCESSIBILITY STANDARDS FOR PERSONS WITH DISABILITIES) CODE, 2019*
- **Unilever and London School of Hygiene and Tropical Medicine (LSHTM) (2013):** *Critical Success Criteria for Evaluating Sanitation Models.*
- **USAID (2014):** *Learning Environment: Improved Infrastructure Program, Design Guidelines & Concept Report.*
- **SDC and UNICEF (2017):** *WASH in Schools Guidelines for Lebanon – Setting Standards, Ensuring Children’s Health.*
- **WHO and UNICEF (2016):** *Core questions and indicators for monitoring WASH in Schools in the Sustainable Development Goals*
- **WHO (2009):** *Water, Sanitation and Hygiene Standards for Schools in Low-Cost Settings*