



**SANITATION**  
FOR MILLIONS



Documentation of  
**Inclusive WASH Activities**



# Acknowledgements

The case studies and lessons learned compiled in this report are based on interviews conducted by Esther Gerlach with Sanitation for Millions project staff in Uganda, Pakistan and Jordan. We would like to thank Esther for putting our project experience into such concise and inspiring words. Our sincere thank you goes to Rabia Baloch, Faten Alnajar, Teresa Haeberlein, Fred Nuwagaba, Muhammad Jaffar, and all our other colleagues. Feedback on drafts received from Helle Deertz, Mathis Nachbauer, Patrick Mass, Michael Köberlein and Alice Brandt has also been invaluable in putting this experience together. We also would like to thank the Bill & Melinda Gates Foundation for providing the means for this study. Sanitation for Millions within its mandate leaves no one behind on their way to safely managed and inclusive sanitary facilities, regardless if a person needs a wheelchair or a crutch, no matter if she or he is small in size or tall, no matter if the person is a child or a senior person – safe sanitation and hygiene is all inclusive!



# Preface

## **“All inclusive?” - Best Practices from Sanitation for Millions: Providing barrier-free access to WASH services”**



Germany has played a pivotal role in recognizing that access to water and sanitation are recognized by the United Nations as human rights, reflecting the fundamental nature of these basic needs in every person’s life. Yet, despite its recognition by the United Nations and the adoption of SDG 6, unsafe water, inadequate sanitation and the lack of hygiene are still claiming millions of lives every year and limit human development significantly.

Worldwide about 4.2 billion people still do not have access to safe sanitation according to UNICEF and WHO. More than 600 million pupils do not have adequate toilets in their schools and 1.5 billion people use services in hospitals and clinics without basic sanitation.

The global COVID-19 pandemic has massively increased these problems and the negative effects of lack of water and safe sanitation and hygiene on health, economic and social development are grave and even fatal in many developing countries. The situation is particularly precarious in refugee hosting communities and informal settlements. The pandemic is especially impacting the lives of people with disabilities since they are highly vulnerable to shocks and crisis and face many barriers and are often discriminated against.

Globally, it is estimated that about one billion people suffer from any kind of disability. People with physical impairments face severe problems to get included in our social and economic life. 800 million people with disabilities live in low- and middle-income countries, prevalently in impoverished households – facing day in, day out barriers to safe sanitation and hygiene.

I am convinced that designing safe, accessible, and technically appropriate sanitary facilities is a critical imperative – not only important for ensuring public health but also for promoting equitable and adequate access to education, employment, and social services such as health or old age services. In my country Uganda, for example, majority of children with disabilities do not complete primary school level. The lack of barrier-free sanitary facilities for pupils with impaired mobility for instance are the main factor of exclusion.

The GIZ global programme Sanitation for Millions which aims at the provision of safe and equitable sanitation and hygiene for all, gives special attention to vulnerable and marginalised people and especially people with disabilities. Complying with international standards for barrier-free construction and paying high attention on sustainability, the programme has facilitated access to education for many disabled children. Following a child- and gender-friendly, inclusive and equitable approach, Sanitation for Millions constructs facilities that encourage hygienic practices, are adapted to the needs of the users, are culturally appropriate and regard age-related needs. This is a substantial contribution to the human right to access to water and sanitation in my country.

I strongly believe that sanitation for all cannot be achieved in practice without tackling the specific challenges that people with disabilities face. Thus, I deeply endorse this documentation of best practices that draws the attention to intersectional dynamics of disability that impact on people's access to sanitary and hygiene services.

The main objective is to highlight the invaluable lessons, practical knowledge and field-tested solutions that are coming from the local contexts of the countries Uganda, Jordan and Pakistan where Sanitation for Millions implements its innovative approach. The best practices and the learning experience from interventions in the three countries also leave their mark on policy-making and political awareness on sustainable sanitation.



**Dr C.T. Mukasa Lusambu**

Commissioner Primary Education  
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# Introduction

## Development Policy Dimension

'Leave no one behind' is at the core of the Sustainable Development Goals (SDGs). Leave no one behind means for *Sanitation for Millions* that everyone, in any inhabited place, has access to a safely managed sanitation facilities and/or safe (hand-) hygiene, and thus can fulfil his/her WASH needs adequately and with dignity. Yet, as per WHO and UNICEF still more than 4.2 billion people suffer from being excluded from safe sanitation and hygiene services.<sup>1</sup> The majority of people without access to safe sanitation and hygiene is amongst those most left behind in the world and normally belongs to vulnerable and disadvantaged communities or groups.

*Sanitation for Millions* has a the mandate to focus on vulnerable people in its commission and hence has designed measures and tools to address the needs and wants of those people, who are at risk of being left behind such as girls, people with disabilities, refugees or elderly people. That is why our donors have decided that the programme shall follow a **child- and gender-friendly, inclusive and equitable approach** and construct facilities that encourage hygienic practices that are adapted to the special needs of the users, especially of girls and women, and persons who are physically impaired.

Globally, one in seven lives with some form of disability. As per UNICEF there are at least 93 million children with disabilities worldwide.<sup>2</sup> *Sanitation for Millions* focuses on physically disabled people who suffer from impaired mobility. A majority of physically impaired people live in developing countries and belong to the most marginalised and excluded groups in society. It is evident that the prevalence of physical impairment increases with rising poverty and distress, ill-health, and increasing age.

Even if one is fortunate enough to live in an industrialised country, at some point, most of us are likely to find out that our homes and public spaces were mainly designed for a physically healthy person who fulfils regular norms. If we do not or no longer fit that norms, everyday activities – things as mundane as going to the toilet, for example – can quickly become a major problem. Hence those who do not fit the norms and suffer from impaired mobility experience many physical, political, economic and social barriers.

Inaccessible water and sanitation facilities in development and humanitarian contexts can lead to children and women with disabilities defecating in poorly lit and secluded areas. This again induces enhanced risks for females being harmed, abused or even exploited. Even if facilities are accessible, children or females with disabilities and caregivers often wait until the dark to use toilets due to negative societal attitudes from other users.

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<sup>1</sup> <https://washdata.org/sites/default/files/documents/reports/2019-07/jmp-2019-wash-households.pdf>

<sup>2</sup> David Tsetse (2016): Disability Inclusive WASH Practices: Including people with disabilities in UNICEF Water, Sanitation and Hygiene (WASH) Programming. UNICEF 2016.

## Barrier-free Construction

In many countries all over the world, poor design and the lack of building norms are the main reasons why physically impaired children cannot attend regular schools and why sanitary facilities are inaccessible for people with disabilities. Improving accessibility to sanitary facilities in existing buildings again is a big challenge, once owing to lack of political will but mainly due to the lack of construction standards and financial resources, but not least because of the additional space requirements for retrofits that accommodate physically impaired users.

There are, of course, compelling reasons for fostering *universal design*,<sup>3</sup> which would deliver accessible and independently usable WASH services for everyone, everywhere: young children, elder people, people with disabilities or with limited physical mobility, expectant mothers, to name just a few who may benefit from *universal design or barrier-free design*.

The sheer scale of needs in the WASH sector creates an urgency to extend service provision and promote adequate and equitable access to sanitation and hygiene as globally defined in SDG 6.2. The imperative by governments and donors to maximise impact in terms of overall numbers has produced comparatively less emphasis on prioritising accessibility and accommodating a diversity of needs and wants. However, some progress on *Inclusive WASH* has been made, especially amongst non-profit organisation and also amongst GIZ projects, but there is still a considerable way to go before fully inclusive WASH programmes and services will become a reality.<sup>4</sup>

*Sanitation for Millions* fosters accessibility in sanitary facilities. Accessibility means that the programme everywhere designs WASH constructions with a design for those with physical impairments where there is a need and want. This again entails involving the provision of alternative means of access to steps (e.g. ramps and lifts (elevators) for those with impaired mobility). It is also called universal or barrier-free design. *Sanitation for Millions* complies in its construction activities with the internationally approved ISO 21542 standard.<sup>5</sup> This International Standard specifies a range of requirements and recommendations for many of the elements of construction, assemblies, components and fittings which comprise the built environment.

<sup>3</sup> Universal design (also known as 'barrier-free design' or 'inclusive design', depending on the national context) is a design approach for systems and services that seeks to benefit everyone, especially those people who tend to be overlooked in conventional design. For more information on universal design, see for instance <http://universaldesign.ie/What-is-Universal-Design>

<sup>4</sup> Jones, H. 2013. Mainstreaming disability and ageing in water, sanitation and hygiene programmes. A mapping study carried out for WaterAid.

<sup>5</sup> <https://www.iso.org/standard/71860.html> - available also at GIZ intranet.



The main criteria for barrier-free or universal design of sanitary facilities with regard to entry and ease of access to follow are (a) a ramp with a maximum gradient of 8% in case there is slope or step; (b) an entrance with an unobstructed width of at least 0.9m; (c) a close vehicle access point which is marked and visible; and (d) a surface that is not slippery and supports usage of wheel-chairs.

Whereas with regards to usability the following main criteria are central (a) folding rails left and right; (b) emergency call system (rope and bell); (c) wheel-chair compatible wash basins and (d) sufficient space to manoeuvre.

*Sanitation for Millions* conducts comprehensive WASH needs assessments before drafting the designs of sanitary facilities at public institutions such as schools and health care facilities. The designs are aligned with the national building codes and standards of GIZ construction department. The construction measures are complemented by soft measures such as trainings of teachers and other school staff and by awareness building of other concerned stakeholders. The training of school staff and caregivers contain information of how to adequately respond to the needs of pupils with physical impairments such as support in conducting daily hygiene routines.

Furthermore, since people with disabilities often encounter stigmatization and prejudices when it comes to their hygiene behaviour, this issue is addressed by awareness creation and sensitisation of the concerned stakeholders, for instance by explaining how the assistive technology works, why it is important and what overall impact it may have.

From a developmental perspective, *Sanitation for Millions* has experienced that it is essential to design measures with the concept of *Inclusive WASH* as it is an imperative to leave no one behind and address the needs of those worldwide who are physically impaired and excluded from adequate and equitable access to safe sanitation and hygiene.

Since 2016, *Sanitation for Millions* has been providing access to adequate and equitable sanitation, notably focusing on the needs of people in disadvantaged and vulnerable situations, including persons with disabilities. This note shares some of the insights from the implementation of accessible sanitation facilities in schools, health centres and religious institutions in Jordan, Pakistan and Uganda. All three countries are signatories of the UN Convention on the Rights of Persons with Disabilities, but find themselves at different stages of its implementation, and with different local expectations regarding disability rights.



## Sanitation for Millions

*Sanitation for Millions* is supported by the *German Federal Ministry for Economic Cooperation and Development (BMZ)* as its lead donor, the *Bill & Melinda Gates Foundation*, the UK-based solidarity fund *Water Unite* and the *Hungarian Ministry of Foreign Affairs and Trade*.

Sanitation for Millions works along four lines of intervention:

- 💧 Fostering access to adequate and equitable sanitation and hygiene in public institutions
- 💧 Improving the sanitation and hygiene situation at household level
- 💧 Developing capacity of sanitation service providers
- 💧 Monitoring and evaluation as well as financing to work sustainably towards transformational change.

Its aim is for small yet effective changes to improve sanitation, making best use of facilities that already exist, whilst addressing the core issues of responsibility and funding.

The three short case studies that follow concentrate on *inclusive WASH* aspects of *Sanitation for Millions*' broader interventions. They are intended to add another authentic voice to those calling for the realisation of disability rights alongside the many other facets of inclusion in the WASH sector and the crucial question *How?*



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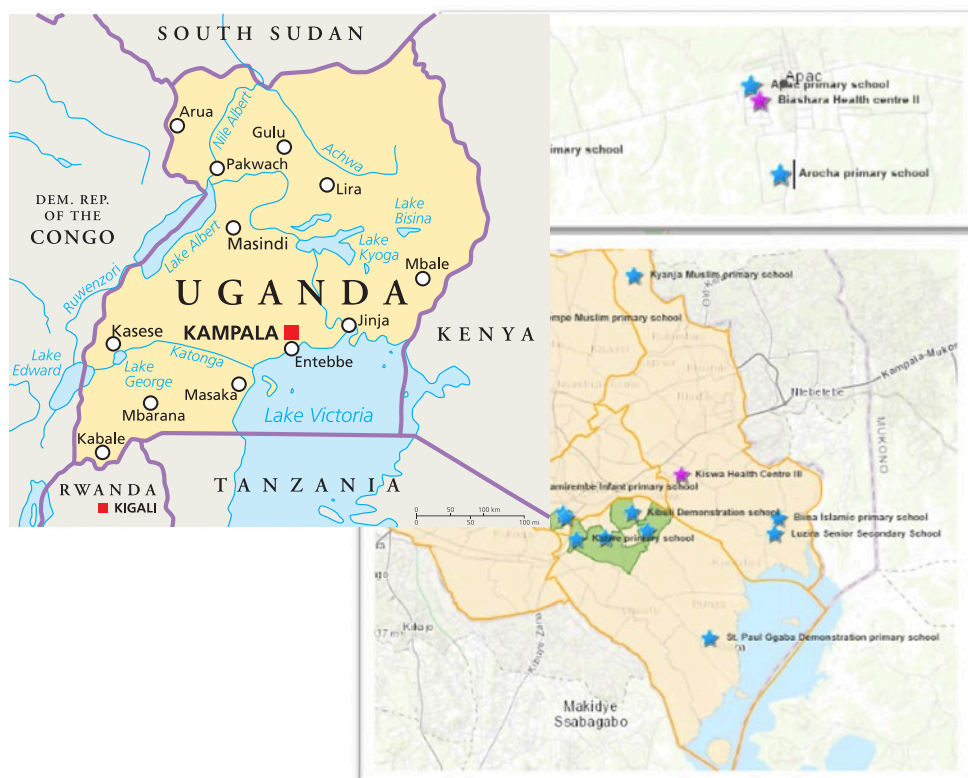
# Sanitation for Millions - Uganda case study



## Inclusive WASH activities and interventions

In Uganda, *Sanitation for Millions* closely cooperates with local partners and relevant authorities on improving sanitation and hygiene in selected areas of the capital Kampala as well as in several smaller towns in Apac district in the North. The project has established strong working relationships with *Kampala Capital City Authority (KCCA)* and *Apac Municipal Council* and is supported by the *Ugandan Ministry of Water and Environment*, the *Ministry of Education and Sports (MoES)* and the *Ministry of Health*.<sup>6</sup> Activities ranging from hygiene promotion to infrastructure construction are centred around public schools and healthcare facilities as entry points into disadvantaged communities.

A total of 14 primary and secondary schools in Kampala, three primary schools in Apac district and two health centres (one in each location) now have more accessible sanitation and hand-washing facilities. Brand new toilet blocks in all schools contain separate facilities for girls and boys, the girls' blocks being adapted to allow for menstrual health management. Nine of the primary schools in Kampala and all Apac schools have been fitted with one or two accessible unisex<sup>7</sup> toilets that can be used independently by students, staff or visitors with disabilities.



<sup>6</sup> There is also collaboration with the Water and Sanitation Development Facility North (WSDF-N) and Northern Umbrella Water and Sanitation Utilities (the regional association of water and sewerage boards of piped water schemes), as well as a number of CSOs and international NGOs.  
<sup>7</sup> The PWD toilets have a separate entrance, not directly linked to the girls' or boys' toilet blocks (see picture).

As can be seen in the picture below, accessible school toilets feature ramps and outward-opening doors wide enough for wheelchair users. Inside, the spacious cubicle has been fitted with grabrails, a reachable flush handle and lever-style tap. The wash basin is low enough for a seated user, yet allows for sufficient clearance for the wheelchair.



**Figure 1:**  
Toilet block with PWD cubicle in the girls' wing at St Peter's Primary School Nsambya, with WASHaLOT 3.0 group handwashing facilities in front.

**Figure 2:**  
Whilst all students at St Peter's benefit from the new and well-equipped sanitation facilities, school life has become a great deal easier for pupils with disabilities.

Drawing on experience from GIZ's regional *Fit for School programme*, *Sanitation for Millions* has also installed several 'WASHaLOT 3.0' group handwashing units at each school: three-metre-long pipes with ten individual water outlets that release water on touch allow up to twenty pupils to wash their hands at the same time.<sup>8</sup> Here, the project team has been looking at customising the WASHaLOT 3.0 to cater for the different ages and sizes of children.

<sup>8</sup> The WASHaLOT was jointly developed by Fit for Schools, the GIZ Sector Programme Sustainable Sanitation and the University of Applied Sciences Potsdam, Germany. Water saving by design, it can be connected to piped water infrastructure or filled manually via the wide side openings.



**Figure 3:**  
WASHaLOT 3.0 group  
handwashing facilities  
installed at St. Paul Ggaba  
demonstration primary  
school, Kampala.



By their very nature, health centres already offered a greater degree of flexibility with regards to the needs of people who are frail or have a disability. Ramps leading up to sanitation facilities are in widespread use. In health centres, *Sanitation for Millions* has focused on outfitting toilets in a similar fashion to the PwD cubicles in schools.

For the time being, all of the new constructions and adaptations have addressed the needs of people with mobility restrictions, and to a lesser extent those of people with sensory difficulties. Access ways have been improved for visually impaired users who are able to navigate with the aid of a white cane, but the materials used to make the access barrier-free for the blind are not readily available in the local market and expensive to procure from elsewhere. However, the emphasis has been on showcasing models that can be replicated in other schools, healthcare facilities and public spaces. There is confidence that facilities that have been built can continue to be upgraded in the future.

### Mainstreaming inclusive WASH

Compared to many countries, Uganda has a robust policy environment for the provision of WASH services in schools for children with disabilities; it is a lack of suitable facilities that has been frustrating the realisation of legally protected disability rights.<sup>9</sup> Inclusion has become a greater political priority, and partners are fully on board, subject to the usual (financial) constraints. Operationalisation remains a challenge, as inclusiveness aspects are quickly overshadowed by other pressing issues.

Nonetheless, construction and design standards for accessible toilets and access ramps have been developed together with *KCCA* and *Apac Municipal Council*, based on existing *KCCA* and *MoES* designs, and, most importantly, in consultation with the intended users. *KCCA* has approved the *Sanitation for Millions* design for use in other institutions. 'Soft' campaigns accompanying the construction activities have contributing to raised awareness: *Sanitation for Millions* has been promoting peer-to-peer learning from its supported demonstration schools and is now looking to extend closer collaboration with key stakeholders at the national level. *MoES* has signalled an interest in introducing minimum standards for inclusive WASH. As a next step, *Sanitation for Millions* is looking to trial a new financing concept which has been developed to ensure the pro-poor orientation of interventions.

<sup>9</sup> Erhard, L., Degabriele, J., Naughton, D. & Freeman, M.C. 2013. Policy and provision of WASH in schools for children with disabilities: A case study in Malawi and Uganda. *Global Public Health*, 8:9, 1000-1013.

## Feedback and insights from Sanitation for Millions interventions for inclusive WASH

Attractiveness and practicality were jointly considered in the designs: if facilities looked and smelled clean, they would be more likely to be treated with consideration. The airy designs also included many low-cost efficiency features. The WASHaLOT 3.0 in itself is a water-saving device, newly installed toilets are of pour-flush type, and keeping toilet blocks open helps with keeping energy costs for lighting to a minimum. The *Sanitation for Millions* approach also differed from the majority of public facilities in Uganda in that toilets are designed as permanent structures, which unlike most others can be emptied, avoiding the ‘generations of toilet blocks’ that normally surround public institutions, and all the attendant problems these generate. User feedback confirms the popularity of the new facilities. The project is raising the profile of the demonstration schools as well as awareness of and interest in PwD toilets more widely, with KCCA keen to extend their availability in the city.

Whilst *Sanitation for Millions* has been focusing on its WASH activities, working with the schools and pupils with disabilities in particular has flagged a number of issues related to the entire school building and support infrastructure. It is not only the lack of accessible school toilets that is keeping children with a physical disability away from school. Few Ugandan schools cater for children with disabilities, and buildings are not laid out for allowing children with reduced mobility or other physical impairments to move around without assistance. Besides, going to school starts with actually getting there. Public schools in Kampala do not generally offer school buses, and public transport is not geared towards enabling persons with disabilities to travel, let alone children that cannot hop on and off by themselves. If parents are not in a position to shuttle them to school, children miss out on education. *Sanitation for Millions* emphasis on inclusive WASH has nudged the wider conversation around access to education and life chances for disadvantaged children.<sup>10</sup>

<sup>10</sup> The Ugandan authorities have noted the impact of disability on school attendance and educational attainment: 55% of PwD aged ten and above are literate, compared with 75% of those with no disabilities. Uganda Bureau of Statistics 2019, The National Population and Housing Census 2014 – National Analytical Report on persons with disabilities, Kampala, Uganda.







# Sanitation for Millions - Pakistan case study



## Inclusive WASH activities and interventions

Working closely with the *Balochistan Rural Support Programme (BRSP)* in Pakistan, *Sanitation for Millions* has focused on improving sanitation in and around the provincial capital. Due to its proximity to neighbouring Afghanistan, Quetta district has seen significant influxes of refugees over the years. Activities targeted 23 public schools and 13 basic health units in the first project phase (2017-19). Construction and rehabilitation of sanitary facilities were complemented with extensive, culturally appropriate hygiene awareness campaigns.

Inclusive WASH was promoted by a focus on menstrual hygiene management (MHM) for girls, but also through the provision of accessible toilet facilities for persons with disabilities or physical difficulties. Specially adapted toilets and washrooms were provided in five health units and one of the project schools, all of which rely on on-site sanitation.

**Figure 4:**  
New toilet facilities at a basic health unit in Quetta district, Balochistan, Pakistan.



**Figure 5:**  
Toilet block at Killi Raigi Nasran Middle School.



At Killi Raigi Nasran Middle School, sanitation facilities were adapted for a student using a wheelchair. The toilet block offers a separate cubicle that has been fitted with a wider door and an access ramp. Designs based on ISO standards were adjusted to enable the boy to access the toilet and move around inside unassisted. Door locks were lowered and handrails installed. Outside undercover handwashing facilities have been lowered to allow him and other eight to ten-year-olds to use them independently.



**Figure 6:**  
With the adjustments made, students using a wheelchair can now access toilets via the ramp and use handwashing facilities without assistance.

Toilets in basic health units were adapted in a similar way, though here small wash basins were placed inside the cubicle, as shown below. All facilities have been connected to running water, which previously had been lacking in many instances. The new facilities were aimed at increasing hygiene, comfort, privacy and access for people with reduced mobility. Resources did not stretch to catering for other impairments.



**Figure 7:**  
Accessible toilets at basic health units have been fitted with grabrails and an inside wash basin.



Before construction, KAP<sup>11</sup> studies and detailed WASH assessments were carried out to ascertain users' perceptions of current facilities and what modifications would be most appropriate.<sup>12</sup> Information was gathered from school registers and community data on the prevalence of disability amongst students and users. In the case of the basic health units, focused discussions between patients and the project's female hygiene promoters helped raise concerns with regard to lighting and accessibility. Respondents noted that the design of facilities were not only affecting users with a disability, but were rarely designed with the comfort of patients in mind. These conversations brought the needs of frequent users of health units, such as pregnant women, to the fore, who wished for more privacy and a little more space. In the school, the accessible facilities were planned together with the affected student and his family.

All sanitation facilities adhere to locally approved designs as authorised by the *Building and Roads Department* and implemented by the *Department of Education*. This was to ensure acceptance and familiarity for the target users – and consequently uptake, with a view to scaling up in the future. Crucially, local designs allowed the project to rely on local labour and materials. Any 'accessibility' features followed international standards in as much as possible, though space restrictions were found to be the greatest challenge, especially for ramps.

## Mainstreaming inclusive WASH

To extend the concept of inclusion beyond gender considerations, the project team actively sought to involve all relevant government departments, boys' and girls' schools and communities. In Balochistan, addressing the needs of women and girls is already a major step towards more inclusive WASH. In schools, *Sanitation for Millions* has been lobbying the *Ministry of Education (MoE)* to include girls-friendly toilets in their standards for school buildings,<sup>13</sup> to allow for privacy and the rather sensitive MHM issue.

With regard to schooling, Pakistan operates a separate system of schools that cater for pupils with special needs.<sup>14</sup> Outside of the main cities, however, children with a disability often cannot attend school at all. *Sanitation for Millions* has flagged this inequitable access to *MoE*, and through its interventions has demonstrated that it is possible to accommodate children using wheelchairs in mainstream education. As Pakistan is one of the very few countries in the world where the polio virus continues to circulate, children with reduced mobility due to childhood illness remains a common problem, and schools rarely provide an enabling environment for them.<sup>15</sup>

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<sup>11</sup> Knowledge, attitude and practice

<sup>12</sup> Of course, the project sought to influence attitudes and hygiene practices in a positive way.

<sup>13</sup> Previously, standards simply asked for two rooms and two toilets. *Sanitation for Millions* trained 200 teachers as master trainers 'lady health workers' to work on sensitisation and awareness of MHM in schools.

<sup>14</sup> In Balochistan, the 'social welfare special education complex' in Quetta is the only such school.

<sup>15</sup> According to WHO figures, 144 cases of polio infection were reported across the country in 2019, which can lead to irreversible paralysis. <http://www.emro.who.int/pak/programmes/polio-eradication-initiative.html>

While the project is working within existing public health and WASH policy and regulations, as far as schools are concerned, WASH aspects remain a secondary consideration as the political priority is to construct more schools. It will therefore take time before full inclusion is given greater importance in an already under-resourced education sector. The local project team have recommended that schools infrastructure should fall under the responsibility of the MoE, which could streamline some of the coordination.

## Feedback and insights from Sanitation for Millions interventions for inclusive WASH

The *Sanitation for Millions* approach in Pakistan emphasised the sustainability of the new facilities and services. A key challenge for the supported schools and basic health units had been the ongoing operational and maintenance costs of sanitation facilities. All project interventions were therefore wrapped in a holistic concept that addressed the full sanitation service chain and allowed the swift resolution of common O&M problems: in co-ordination with the local municipalities and local government, *Sanitation for Millions* is working on better operational mechanisms, with a view to improve faecal sludge management, including emptying, transporting and sludge disposal from septic tanks. Solar panels ensure that facilities are independent of electricity networks. Finally, one of the key successes was training unemployed youth as plumbers, who, provided with a basic toolkit and a motorbike could repair and troubleshoot<sup>16</sup> and therefore safeguard the sanitation facilities, including and especially those provided for persons with disabilities, which are always at risk of being neglected or repurposed.

In addition to the pre-KAP studies mentioned above, post-KAP assessments were undertaken. The feedback received from the users that have benefited from the project speaks for itself. Here is an extract of the written testimony of the young boy seen in the pictures above, who describes his pride in the new facilities: 'The separate latrines ... encouraged me not to drop school; they are even a motivation for other children like me to be enrolled here.'<sup>17</sup> Clearly, this is a school that is now in a position to welcome a much greater diversity of students and staff, and can become a positive example for others in the region.

*Sanitation for Millions* is promoting more inclusive schooling by enabling attendance through the provision of basic sanitation facilities. Given the links between childhood disability, educational attainment and household poverty,<sup>18</sup> barrier-free sanitation plays a significant role in improving the life chances of many children with disabilities.

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<sup>16</sup> According to WHO figures, 144 cases of polio infection were reported across the country in 2019, which can lead to irreversible paralysis. <http://www.emro.who.int/pak/programmes/polio-eradication-initiative.html>

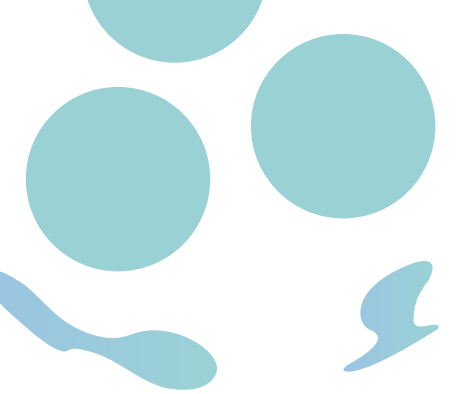
<sup>17</sup> His impression is echoed in the latest enrolment numbers: during the 2018-19 school year, student numbers increased by 15 boys and 60 girls.

<sup>18</sup> EIU. 2014. Moving from the margins. Mainstreaming persons with disabilities in Pakistan. A custom research report produced for the British Council; REAL. 2018. Identifying disability in household surveys: Evidence on education access and learning for children with disabilities in Pakistan. Research and Policy Paper 18/1.





# Sanitation for Millions - Jordan case study



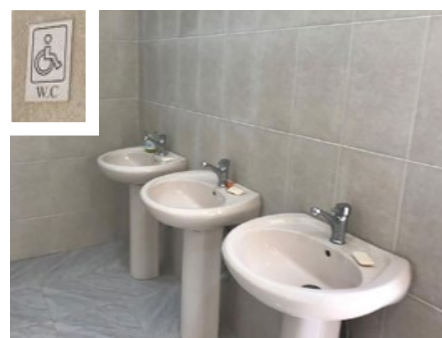
## Inclusive WASH activities and interventions

In Jordan, *Sanitation for Millions* has partnered with two GIZ projects. *Improved Learning Environment at public schools in host communities in Jordan (ILEPS)*, which supports schools straining under the influx of children from families displaced by the ongoing Syrian crisis, includes a WASH component. The *Improvement of communal water efficiency through cooperation with religious authorities ('Water in Religion')* project focuses entirely on improving access to barrier-free, safe sanitation and hygiene for local communities through infrastructure improvements in mosques and accompanying awareness raising activities. Some of the interventions under both projects are specifically aimed at enhancing accessibility for persons with disabilities.



To date, accessible sanitary units have been constructed at a mosque in Mafraq and *Al-Qadisiyah High School* in Irbid. Both are located in Northern Jordan on the border to Syria, a region that is hosting a large number of refugees. Eight further sanitary units in mosques are currently in their design phase, with construction expected to start by January 2021. *Sanitation for Millions* has also procured two portable sanitary containers with barrier-free access that can be deployed by the *Ministry of Education* as a temporary solution where they are most urgently needed.

**Figure 8:**  
Accessible toilets at Salah Eddin Mosque, Mafraq.





The accessible toilets constructed at *Salah Eddin Mosque* (pictured above) conform to ISO standard 21542<sup>19</sup> as well as Jordanian building standards. Designs were prepared by a consulting engineering company and construction tendered out. Building works were carried out by a contractor under supervision of the consultant and *Sanitation for Millions/Water in Religion*. The intervention school had been selected for its higher-than-average percentage of disability amongst the students on roll. Here, in addition to around 30 standard toilets, six accessible units for all age groups (and staff) were designed by a local architect, again based on international standards and the Jordanian building code, as well as the Architectural and Engineering Guidelines for Government Schools laid down by the Jordanian *Ministry of Education*. The school being one of the largest double-shift schools in Jordan<sup>2</sup>, materials and fittings needed to be functional and hard-wearing, but the project tried to be creative in adding some individuality and a little flair to the new facilities. Being a refurbishment project, space restrictions emerged as a constraint. The latter point is echoed by the *Water in Religion* project, where the existing position, elevations and general architecture of mosques are presenting difficulties for creating barrier-free access.

The portable units, also conforming to ISO 21542<sup>20</sup>, were put out to international tender. Required accessibility features include an external ramp and standard minimum dimensions. Internally, the order placed by *Sanitation for Millions* specifies the type of the toilet, height and clearance below the hand washbasin, mounting of fixed and folding rails, as well as safety features such as an emergency pull cord and doors that can be unlocked from the outside in the event of an emergency.



**Figure 9:**  
*Drawing and floorplan of the portable containers.*

<sup>19</sup> ISO 21542:2011. Building construction – Accessibility and usability of the built environment.

<sup>20</sup> In response to high demand and large numbers on roll due to large numbers of pupils from refugee families, schools are offering separate morning and afternoon sessions.



As the ILEPS project pursued the broader objective of supporting more inclusive education in general, an assessment was conducted in 2019 to investigate the challenges of accommodating the needs of pupils with different kinds of disabilities and/or learning difficulties in the Jordanian education system. Though the study was mostly centred around learning support (i.e. dedicated teacher assistants), participants of the student and family focus group discussions raised accessible toilets as a barrier to children's participation in school life. At the subsequent national stakeholder event, inclusive WASH was discussed as an essential part of an enabling school environment.<sup>21</sup> Accessible infrastructure was ranked as a higher priority than even teacher training and general awareness in achieving inclusive education by the results of the needs assessment.<sup>22</sup> In the intervention school, the rehabilitation of sanitary facilities was integrated in a general overhaul of the school, including outdoor areas used for breaks and recreation, all of which were made accessible for wheelchair users and children of different height and physical abilities. The overall aim was to make facilities as inclusive as possible, taking into consideration the different requirements of students' gender, age, nationalities, and any particular impairments.

Target users of the supported facilities in mosques and/or the disabled community were not involved or consulted in the same way. These facilities were planned and implemented by GIZ and its political and implementation partners. Only a very small proportion of mosques (about 5%) currently have barrier-free access, and none offer accessible sanitary facilities. Some 40% do not even have facilities for women.

## Mainstreaming inclusive WASH

Other than providing toilet facilities adapted for users with physical disabilities, the *Water in Religion* project is promoting a more inclusive approach to WASH by developing a guidebook on 'Hygiene from an Islamic Perspective' aimed at religious authorities.<sup>23</sup> Waithat (female Islamic preachers) have been trained to spread the knowledge from the guidebook among women in their communities, as women are less likely to visit mosques than men and therefore are less likely to be reached by sermons or lessons by the local Imam. In line with its commitments to inclusion, an audiobook version will be made available for visually impaired people. The *Sanitation for Millions* foray into nudging the emphasis of inclusive WASH in the direction of accessibility for users with disabilities coincides with a strong commitment on the part of the Jordanian authorities, notably in the education sector. In its 2018 – 2022 Strategic Plan, which was further emphasised by the 10 Year Strategy for Inclusive Education, the *Ministry of Education* prioritises the integration of children with disabilities into mainstream classrooms across the Kingdom. Inclusive WASH is an embedded concept within the strategy, but it

<sup>21</sup> [https://twitter.com/WaSa\\_Hub/status/1176473192543793153](https://twitter.com/WaSa_Hub/status/1176473192543793153)

<sup>22</sup> '[...]according to children with disabilities and their parents, basic needs ... are still not met by the current school environment. Especially the lack of accessible infrastructure was mentioned in various forms' p.30 Mazagobian, A., Al Baz, M. and Aschenbrenner, T. 2019. Needs Assessment on assistive services for children with disabilities and learning difficulties in Jordan.

<sup>23</sup> imams, waithat, scholars and teachers of Islamic science

was noted that the desired changes will take time, and ideally there will be coordination with other ministries such as the *Ministry of Health* and the *Ministry of Social Development*. Meanwhile, the project focus lies on 'quality over quantity' for hardware aspects.

Interventions within religious institutions, which fall under the *Ministry of Awqaf, Islamic Affairs and Holy Places*, are supporting the line ministry and its directorates as well as local communities in affording a safe public sanitation option, especially where funds and facilities are scarce. Whilst project work can progress within existing public health policy and regulations, extending access for women and users with disabilities is keeping the concept of inclusion at the forefront of ongoing discussions.

## Feedback and insights from Sanitation for Millions interventions for inclusive WASH

Direct feedback on the new barrier-free toilets and washrooms has been received from students and parents. This has been overwhelmingly positive, especially as the previous facilities were not only inaccessible, but unhygienic and in a dangerous state of disrepair. Being able to use clean and safe facilities independently is much appreciated. Worshippers and visitors with disabilities can now access the mosque and community gardens at *Salah Eddin*. A user satisfaction assessment via EnDev surveys is planned for the near future.

Whilst the direct experience with providing accessible WASH infrastructure is still limited, the *Sanitation for Millions* experience so far suggests that there are clear benefits to integrating the accessible sanitation component in the wider building environment. An accessible toilet on its own is of little use if the rest of the school/mosque is not barrier free. Also, infrastructure by itself does not solve the problem, it is as important to create a sense of ownership from the implementation stage onwards. The *Sanitation for Millions* approach has focused on the all-important challenge of ensuring that local project partners would be able to maintain the new facilities. The 'Hausmeister concept', which was originally conceived by GIZ's WASH+ programme for Jordanian schools, has been embedded alongside all infrastructure measures: school security guards and muezzins have been provided with a set of tools and trained to carry out basic repairs, whilst technical backstopping is provided through a small fleet of 'mobile maintenance units'.<sup>24</sup> Some accessible sanitary units require special tools, which must be considered when planning plumbing training and equipping toolkits and trucks.

With regard to the construction measures, both the works themselves as well as the preceding tendering process have been described as lengthy and time consuming. Communicating the need to prioritise barrier-free access and inclusion can be challenging. If implementing partners are involved from the start, expectations can be clear from both sides, which ensures that designs can be agreed early on. Construction costs should also be carefully assessed at an early stage, as they can turn out to be high in relation to the available funds.

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<sup>24</sup> See GIZ. 2020. Curtain call for caretakers: the Hausmeister concept.

# Lessons

As the case studies show, the benefits of 'inclusive WASH' interventions implemented by *Sanitation for Millions* and partners in the three countries go beyond targeted improvements for people who for too long have been excluded. New or redesigned facilities may still be few in number, and the accessibility features that have been added so far are only a start. However, their impact cannot be counted simply in terms of 'beneficiary numbers'.

Demonstrating how existing designs can be modified provides a jumping-off point for accessibility to become a consideration in more public spaces. Moreover, the continuous engagement with local authorities and relevant ministries helps with breaking through barriers to inclusion by encouraging a much wider debate about equitable access and participation in public life.

Transferable lessons from the ongoing *Sanitation for Millions* projects are summarised below.

-  **Inclusive WASH is an essential part of effective healthcare and education systems.** Accessible sanitation facilities in schools not only improve life chances for individual children. Toilets that can be used by everyone play a critical role in keeping disease at bay for entire communities: as the current Covid-19 pandemic reminds us, we're only safe when all of us are healthy. Note that in an educational setting, inclusive WASH is only one part of an enabling school environment. Making the necessary adaptations to sanitation facilities can spark a wider discussion on how to mainstream inclusive education and what it entails beyond creating physical access.
-  **Sustainability, in terms of functionality as well as financing, must be considered from the start.** With fewer users, accessible toilets are more at risk of falling into disrepair. *Sanitation for Millions* has worked on innovative local concepts for addressing the operations and maintenance challenge and covering the full sanitation service chain. Upkeep, use and functionality can be further improved by combining attractive designs with practical and efficient features, such as water and/or energy saving devices.
-  **In the beginning, prioritise quality over quantity and make a start, even if available budgets and materials are limited.** A ramp without tactile paving is still a significant improvement on a step. It may not be immediately possible to accommodate as many different types of disability as desired, but with a little forward planning more accessibility features can be added at a later stage for people with different needs.

💧 **Most importantly, involve users to match planned modifications to their needs.** Universal design' is an excellent starting point, as it intends to benefit everyone rather than some narrow segment of the population. However, not every 'special need' falls within the conventional understanding of disability, making user feedback at the design stage and post construction critical.

💧 **Whilst policy environments are changing (slowly), buildings are even slower to catch up. Incidentally, this affects all countries, everywhere. Retrofitting is expensive and often more difficult to achieve, so working on new standards that apply to new builds is worthwhile.**

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