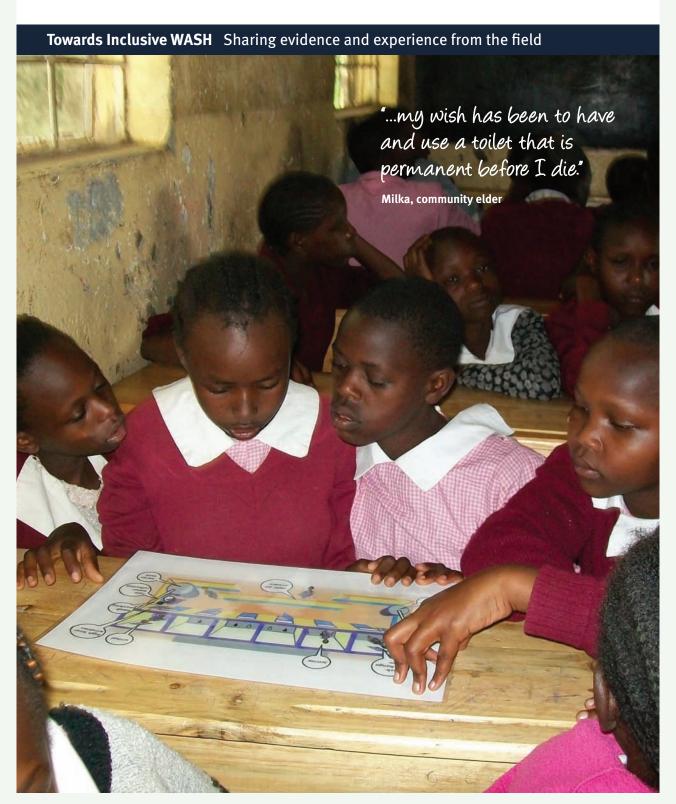
# Toilet Design Clinics in Naivasha, Kenya

Poorest of the Poor
Disability
Gender

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## **Background**

The provision of appropriate and sustainable sanitation technologies for the urban poor is complex. There is a lack of clearly defined and accessible technological options to suit different target groups, such as older people, people with disabilities, children, men and women, and ways of involving them at all the project stages.

As a result of this complexity, most urban planners, mandated local service providers and development agencies prefer to evade issues of equity and inclusion rather than designing and developing sustainable models that can be replicated.

Development of sustainable sanitation models for the urban poor is one of Water and Sanitation for the Urban Poor's (WSUP) key focus areas. By encouraging marginalised groups to engage in participatory meetings, known as toilet design clinics, WSUP has been able to uncover the diverse sanitation needs of these groups and address issues such as gender integration. The result of this is the formation of sanitation models that respond to specific gender needs, expectations and cultural factors in order to influence sanitation use.

# Location

» Naivasha town, Kenya



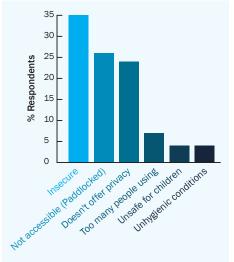


### **Initial situation**

For a long time the development of sanitation technologies has been a reserve of male engineers who often had an incomplete knowledge of the social, economic and technical needs of the intended users. The result of this approach has been the introduction of unaffordable, unsuitable and unsustainable technologies.

A sanitation facility should offer safety, privacy and dignity to all users and be easy to clean. Unfortunately most of the facilities in urban poor settlements do not live up to these criteria. Figure 1 summarises the barriers to accessing sanitation as reported by a research study on gender and sanitation carried out in Naivasha by the Institute of Environment and Water in collaboration with WSUP.

Figure 1 Limitations to latrine access



## What you did

### **Toilet Design Clinics**

Toilet design clinics (TDCs) put the needs of women and other disadvantaged groups at the centre of infrastructure design and planning. TDCs are structured consultation processes, similar in concept to women's focus group discussions, but with additional participation of project planners and engineers, and with an explicit emphasis on infrastructure design, placement and management. The community identified numerous barriers and possible solutions to improve access to community latrines (Table

1). With the introduction of TDCs, sanitation technologies are now being tailored to suit the local conditions, existing capacities and skills, resources, gender preferences and cultural and social factors.

# **TDCs for on-plot latrines**

In Kenyan communities, a plot can comprise several households; therefore one on-plot latrine serves people from several households. During a TDC for the development of an on-plot sanitation facility, men and women were asked to share their views on the current sanitation situation and to describe what they would like from an improved facility.

In these clinics men typically had fewer suggestions than women on how to make latrines more user-friendly. Many men stated that it would be sufficient if there was a latrine available on their plot. They were not aware of, or did not appreciate, the amount of work performed by women to ensure facilities remained clean and usable.

Table 1 Barriers and solutions to use of community latrines

	Barriers	Solutions to barriers
Individual	Children are afraid to use the latrines for fear of falling into the latrines.	Designs recommended a size that was appropriate for children to use.
	Women did not like sharing latrines with men for fear of being assaulted or raped.	Findings from a gender and sanitation study used to influence designs – e.g. toilets are locked at night and key available to community members.
	People with disabilities and older people find it difficult to squat and access community latrines due to frailty, physical impairment etc.	Construction of a public sanitation facility that took into consideration the needs of people with disabilities and older persons.
	Religion's role in shaping individuals' needs: Muslim culture encourages the use of water for anal cleansing.	Including Muslims in the design sessions and their views and expectations incorporated.
	Dirty and unhygienic facilities.	Listening to women on what materials are easy to keep clean.
	High ratios of toilet use (1:45) leading to long queues and waiting times.	Construct on-plot latrines that reduce the ratio of toilet to users to 1:20 thus decreasing waiting time.
E	One shared cubicle for both men and women in public and community latrines – creates discomfort for female users.	Construct twin door latrines – one for men and one for women.
Environmental	No provision of bathroom facilities leading to bathing in houses. Women must wait until everybody leaves the house to bathe, or bathe at night, an unsafe practice.	During the design sessions the participants expressed the desire of having a bathroom unit for bathing built besides the latrine.
	Construction materials used are not durable and finished latrines are not always safe to use (risk of superstructure collapse).	Research on locally available materials to determine their strength. Construction of concrete floors and walls built of quarry stone. Training local women on use of pumice stone to mould building blocks.
	Urban setting means there is limited space for open defecation and lack of privacy.	Sanitation upgrading/subsidising project motivated plot owners to give up some rooms and available space.

 Table 1
 Barriers and solutions to use of community latrines (Continued)

	Barriers	Solutions to barriers
Institutional/Organisational	Existing designs not participatory and rigid to the expectations of the users.	Presentation of existing designs by the Public Health Technician to the community - open discussions on how to improve them.
	People with disabilities (PWD) do not own plots of land and are forced to use existing latrine facilities that are not accessible. Even if a facility was constructed in one of the plots they are living in then it ceases to belong to them and if they have to shift then access to them ceases.	Involve PWD in design and locating of accessible public latrines. Involve PWD in all the stages of implementation and management.
	Perception that investing in poor urban settlements does not make business sense as the poor cannot pay for costs of sanitation facilities.	Design sustainable models and recruit private operators to operate them as a business and not a social entity.
	Disconnect between policy formulation and consumption since there is no consultation in policy formulation and review, and there is limited knowledge by the consumers on what policies exist.	Capacity building sessions for the users on existing policies and how they affect them.
	No policy support on menstrual hygiene management.	Create awareness of the necessity of menstrual hygiene waste policy for solid waste management groups and the municipal council, leading to inclusion of disposal of menstrual hygiene waste in already established waste disposal systems.
	Sustaining school sanitation (the role of operation and maintenance (0 $\&$ M) costs not clearly defined).	Encouraging school administration to either commit or raise money for 0 & M of sanitation facilities.
	Stigma associated with people living with HIV and AIDS such as the perception that they should not be involved or mingle with others in society denying them the opportunity to choose their sanitation destination.	Encourage those affected by HIV to participate in implementation of sanitation technologies.
Attitudinal/Social	The perception that the construction industry is a reserve of the men and existing doubts on the capability of women to participate.	Encouraging women to participate by upholding other active women as an example.
	Community consultation sessions are seen as a unnecessary use of time to the engineers who just want to count completed structures.	Worked together with the engineers who saw the importance of the process.
	Lack of cohesion that is characterised in urban settlements.	Formation of an association that serves as an oversight for the community.





Figure 2
Schoolgirls reviewing and discussing their toilet facilities, Kenya

WSUP

Alternatively, women participants highlighted numerous design preferences including:

- » Cleanliness—ease of materials used to be cleaned
- » Good door and stable floor
- » Located in a position that prevents the smell reaching the house
- » Appropriate size and design for children
- $\ensuremath{^{\scriptscriptstyle{>\!\!\!>}}}$  Provision for washing hands
- » Utilise the existing space well.

Like men, women also expressed their preference for a permanent on-plot latrine. When Milka, one of the older women, was asked what her ideal sanitation facility would be like, she said, 'my wish has been to have and use a toilet that is permanent before I die.'

Most of the participants were in agreement with Milka and selected a ventilated improved pit latrine (VIP) as their preferred technology because they were aware of the technology and knew how it operated. Another finding from this meeting was that while men held women responsible for allowing their children to practice open defecation, the men were not aware that the existing latrines were not child-friendly. 'There is a problem with women in this village. They allow their children to go defecating everywhere,' said one of the men.

### **TDCs for school sanitation**

Despite being key users of sanitation facilities, children are rarely consulted or given an opportunity to influence the designs. A TDC was carried out in Mirera primary schools to identify a toilet design that met the needs and expectations of different age and gender groups. The first task was to get the school community – the headmaster, teachers and class representatives – to assess the existing sanitation facilities and give the children an opportunity to identify problems. During this assessment, the pupils identified the following key issues:

- » The foot rests are positioned too close to the back wall of the toilet which makes it uncomfortable for the girls to use as their backs rub against the wall when squatting.
- » The facilities lack a hygienic place to dispose of used sanitary pads for girls.
- » None of the boys' toilets have doors.
- » The urinal drains and latrine floors in the boys' toilets were not sloped well so there is a lot of urine by the entrance and the door.
- » The facilities are dirty and unhygienic most of the time and this discourages the pupils from using them. As a result students end up using the bushes behind the latrine.

A presentation of existing generic sanitation technologies was given in order for the pupils to develop skills and knowledge that would enable them to design appropriate solutions. The pupils were in agreement that the most important thing for them was that the facility offered privacy for both girls and boys, was comfortable to use and clean all the time. Interestingly, an expression of a need for privacy by boys contradicted perceptions teachers had of their needs. One female teacher said, 'boys don't need doors since they compete when they go to the toilet to see who can aim the toilet hole from the furthest point while urinating.' Using focus group discussions (FGD), the pupils were divided into gender groups and asked to design the best possible facilities, listing the important features of the toilet layout (Figure 2). They came up with the following lists:



 Table 2
 Public latrine requirements by user type as identified by participants in TDC

	2 2
Type of user	Latrine requirements
People with disabilities	<ul> <li>» First toilet in the layout should be reserved for disabled people to save the amount of movement within the facility</li> <li>» Disabled toilet should be bigger than an average toilet</li> <li>» Supporting chair-like structure or seat with a hole in the centre and a support at the back</li> <li>» Supporting side handles which can help users while squatting down and getting up</li> <li>» Provide ramps instead of stairs if the structure is raised</li> </ul>
Older people	» Second toilet in the layout should be reserved for elderly to save the amount of movement within the facility
Children	» Smaller pit holes
Muslims	» Storage container with water can for anal cleansing should be available
All others	» Pour flush latrine with permanent walls, concrete floor and toilet paper

Figure 3
A schoolgirl presents
a student design for
school toilets, Kenya
WSUP



# Student recommendations for girls' toilet

- » Ventilated Pit Latrine
- » Urinal
- » Changing room
- » Washing room and hand washing tank
- » Incinerator

In their design recommendations, girls in upper primary schools emphasised the need for menstrual hygiene management facilities. These students were keen to have an incinerator connected to the changing room facilities for safe disposal of their sanitary pads. They also proposed that the school latrine design include girls' urinals,

to reduce waiting time at the toilets during breaks (Figure 3). Other partners in Kenya have demonstrated the utility of girls' urinals in schools.

In contrast, the boys' FGDs highlighted innovative technologies and drew on knowledge they had gained at school:

### Student recommendations for boys' toilet

- » Pit toilet connected to a biogas unit
- » Biogas energy to light up their classrooms and be used for cooking in the school kitchen.
- » Waste/sludge directed to a vegetable garden.



Figure 4
Men and women in toilet
design clinic brainstorm,
Naivasha Kenya



The Public Health Technician presenting on the regulator's requirements of a sanitation unit. The government's

unit. The government's presence at TDCs ensured that the participants aligned their designs to existing regulations.

WSUP

Figure 5



# Public Sanitation—meeting the needs of all users

From a meeting held with people living with disabilities it was clear that the current public sanitation facilities were not serving their needs. Developing accessible on-plot facilities would not be suitable for them either as many people with disabilities do not own their houses but rather rented houses, thus frequently moved from one plot to another, with limited ability to influence the design of, or upgrade, onplot latrines. In the meeting participants stated a preference for a public facility that incorporated their needs and could be accessed by all of them. The participants were divided into two groups to discuss, design and draw an accessible public sanitation facility on a flip chart (Figure 4).

The first layout had the following features:

- » A centrally placed kiosk connected to both entrances where the caretaker will sit and collect money for toilet use.
- » One toilet for Muslims, one toilet for the people with disabilities, one for children, two for older people, two for people without disabilities, one bathroom and changing room on both sides, urinal for men and a wash area for hand washing with soap.
- » The disabled toilet was bigger to accommodate a carer or a wheelchair.

# User specific design recommendations

The main suggestions made by participants to make the latrine more comfortable and user friendly are summarised in Table 2. The community members also recommended that the public latrine be accessible by road so that it can be easily reached for servicing. The proposed design is a pour flush toilet with a holding tank that can be emptied occasionally by a vacuum tanker, available for hire from Naivasha town.

The final design will be presented to the community group for validation and endorsement before implementation.

### Actual designs and implementation

The suggestions from the community were translated into architectural drawings and taken back to the local and school community for validation and amendments. Representatives from the Water Users'



Association then selected members of the community to oversee the implementation (one person with a disability, one woman, one local artisan) in order to ensure that the people's expectations were incorporated at the construction stage. The final latrine was constructed with two wider units that can accommodate a wheelchair or carer and three that serve the needs of people without disability. The standard size of the drop hole was reduced to 300 x 150mm. This smaller size hole is particularly important for encouraging children to use the latrines. All the cubicles have a provision for anal cleansing to serve Muslim people's needs.

### Sustainability

In all areas of intervention, WSUP does not work in isolation but works alongside local service providers who have a mandate to provide water and sanitation services. The Ministry of Public Works and Sanitation was closely involved in all of the TDCs. This ensured that final designs were in accordance with existing policies and guidelines and also allowed government to participate in the community design process. The local public health technician assigned guidelines for the various facilities, and all of the TDCs incorporated these (Figure 5).

To ensure that the new facilities operated sustainably, the Municipal Council was involved in critiquing and approving the designs. It was also involved in the process of recruiting a private operator to run the facilities. When the facility starts operating, the operator will sign an agreement with the Municipal Council as well as the community's Water Users' Association.

Local women artisans have been trained to produce inputs to sanitation facilities that were approved by the local community, using locally available materials. This makes replication and sanitation development possible since the locals will be able to identify with their own designs.

# **Impact of TDCs for sanitation**

Construction of both the on-plot latrines and the public sanitation facility is ongoing. One hundred on-plot latrines and the public sanitation facility are scheduled for completion by mid-2012. Fundraising for sanitation facilities is on-going, and it is expected that in the future funds will be committed to implementing the students' sanitation designs in some demonstration schools.

A proportion of the on-plot facilities are now complete. From speaking to members of the community, the following impacts have been noted:

- » The improved latrines have restored dignity especially to women
- » Women are no longer embarrassed to have visitors, knowing they have decent latrine facilities to offer them
- » The livelihoods of the local female artisans who have been trained to produce building blocks from local materials have greatly improved; they are now able to feed their children, afford school levies and pay their rent
- » Improved community participation and ownership of public latrines
- » Reduction in the waiting time to access a toilet facility
- » Children are no longer scared to use the latrines as the size of the drop holes was reduced.



# **Learning points**

### Successes

Women and girls have been actively involved in both the design and implementation phase of this program. Consequently they have been able to influence the decision-making process to define and address their and their children's sanitation needs. Throughout the process women have courageously stood up to express their needs and in some cases taken on the role of working as local artisans. Having ownership of the whole process of technological design and development instils and triggers pride and self-confidence in women. WSUP found that the presence of a woman within the TDC facilitation team encouraged other women to participate and helped men to understand the crucial role that women play and the necessity to include them. School children have lots of knowledge and ideas to contribute to sanitation design. This was evident when boys from Grade Seven and Grade Eight proposed a biogas gas technology, based on what they had learnt about it in their science class.

During the school session, the pupils did not consider sanitation facilities that are accessible to students with disabilities. When asked why, they said that their school did not have any pupils with a disability, and had not considered that there may be students in the future who would benefit from inclusive design. This demonstrates how people's sanitation needs can be forgotten and not considered when they are not represented during discussions.

### Challenges to implementation

Despite the importance of providing decent sanitation for school children, there is no policy on whose role it is and how to implement the development of new facilities and manage operations of the existing facilities. As a result, there has not yet been a demonstration of the sanitation units proposed by the school pupils due to the lack of management capacity and the challenge of raising the funds to pay for the required expertise such as the biogas technologies.

The girls had proposed the incorporation of an incinerator to their facilities, but rules and regulations of the councils and National Environmental Management Authority do not allow for incinerators to be located within residential areas.

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This case study is one of sixteen from the Towards Inclusive WASH series, supported by AusAID's Innovations Fund. Please visit www.inclusivewash.org.au/case-studies to access the rest of the publication and supporting resources.

