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**DELIVERING WATER, SANITATION AND HYGIENE SERVICES
IN AN UNCERTAIN ENVIRONMENT**

**Accessible school latrines in Uganda:
the gap between design and construction**

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This paper discusses gaps between design and construction of accessible latrines developed by the The Ministry of Education and Sports (MoES) in Uganda is committed to the inclusion of disabled children in mainstream schools as part of Universal Primary Education. However physical infrastructure barriers remain, including inaccessible latrines, in spite of the existence of accessible designs. This study sought to investigate why accessible latrine designs are not being implemented in practice, through document review, direct observation and key informant interviews. Key findings of the study include confusion caused by the various designs in use, and their inadequacy, and lack of approved accessibility standards for reference. A number of recommendations are proposed including co-ordination by the MoES of all stakeholders in planning, design and approval of accessibility standards and designs, and improved monitoring by technical personnel of accessibility at the time of construction.

Introduction

The government of Uganda introduced Universal Primary Education (UPE) in 1997, to benefit a maximum of four children per family (MoES, 1999:10). One of the objectives of UPE was to eliminate disparities and inequalities in education, by enabling all children to enrol and remain in school, including children with disabilities (CWD). To enable CWD to attend mainstream schools, barriers to inclusion would need to be removed, including barriers in the physical environment, such as inaccessible latrines.

In 2000, the Ministry of Education and Sport (MoES) with support from donors, developed and implemented an accessible latrine design, featuring a cubicle for CWD with support rails and wider doors, and a washroom for girls (MoES 2000). In 2005, however, an assessment of sanitation in Ugandan schools revealed that 74% of surveyed schools had no provision for CWD (MoES and UNICEF 2006).

By 2011, the problem still remained, that the majority of school latrines constructed over recent years in Uganda were inaccessible to disabled children, despite the existence of official designs that incorporate accessibility.

Description of the study

The aim of this study was to investigate why accessible latrine designs in Uganda were not being implemented in practice, specifically:

1. Identify and analyse school latrine designs currently in use in Uganda,
2. Assess a selection of latrine structures in place
3. Identify reasons for not implementing the recommended latrine designs.

Data was collected from June – October 2012. Methods used included:

- structured observations of sanitation facilities and hygiene practices in six schools in Kampala and Wakiso districts, using an accessibility audit tool (e.g. WEDC and WaterAid 2012), and
- interviews with key informants, (including MoES officials, the construction management unit engineer, district and town engineers, planners, health inspectors, head-teachers and relevant development

partners), about school demographics, participation in construction projects, and opinions and perceptions on accessibility design.

What constitutes an accessible school latrine?

Firstly we need to identify what constitutes an accessible school latrine. This section draws mainly on Jones and Reed (2005) unless otherwise stated. The following features of accessible latrines should enable users to:

Get there

- Be within reach: recommended distance to facility of no more than 150m. The MoES (2000) recommends a minimum distance of 10m from classroom to latrine;
- Have firm, even, non-slip unobstructed surfaces and paths; minimum width 1200mm to allow two people to walk side by side;
- Have ramps for use by wheelchair users, ideal gradient 1:15; maximum 1:12 for independent mobility.

Get in

- Have doors and entrances wide enough for entry by crutch and wheelchair users, minimum width 800mm;
- Have a level platform immediately outside any door to allow users to open the door without wheelchair rolling backwards or standing without losing balance;
- Have a handrail next to the door for support while opening door.

Use independently

- Have an accessible cubicle size of 2700 x 1800mm (UNAPD, 2010:23). This compares with the recommended size of an ordinary latrine cubicle of 900 x 1400mm (MOH/EHD et al, 2001:4).
- Have secure and reachable locks, preferably large bolts; at a recommended height of 750mm; handles on the inside and outside for easy grip (UNAPD, 2010: 23);
- Have outward opening door with a rail and/ or rope on the inside for ease of closing;
- Handrails attached to the wall or floor inside the cubicle;
- Raised toilet seat, either fixed or moveable.

Key findings of the study

Latrine designs in use

A number of different latrine designs were found to be currently in use. These were assessed against the recommendations outlined in the previous section.

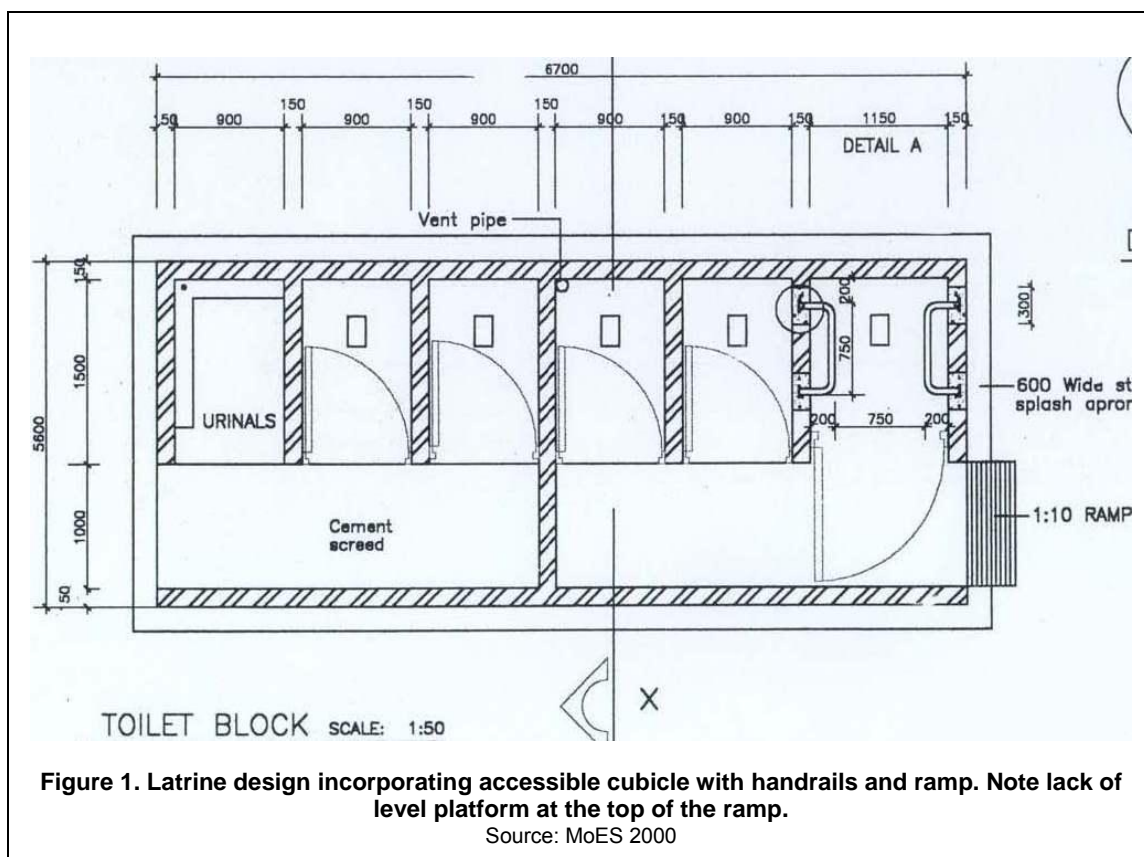
MoES Designs: The MoES has produced three designs, all of which incorporate a spacious cubicle, with ramp access and a wide and outward opening door. Other features include a urinal in the boys' block and a washroom in the girls block. The earliest design (MoES 2000) has a reasonably spacious cubicle (1150 x 1350mm), support rails on both side walls, although they do not span the entire length, and a ramp with gradient of 1:10. There is no level platform at the top of the ramp (Figure 1).

Two more recent designs have been produced. One of these (MoES 2010a) has a much more spacious cubicle (1100 x 2500mm), similar support rails on both side walls, and an improved ramp with a gentler gradient of 1:12, plus – on the plan drawing – a level platform at the top of the ramp immediately outside the door. The elevation drawing of the same facility however does not show this platform, which is misleading.

The other 2010 design (MoES 2010b), which is used in expansion of seed secondary schools, has a spacious cubicle (1200 x 1800mm), and a level platform in front of the door at the top of the ramp. However the ramp slope is 1:5 which is far too steep. MoES designs have no other accessible features than those described above.

Designs by development partners:

Designs were obtained from several development partners, including Kampala Capital City Authority (KCCA), and WaterAid in Uganda. Each agency has produced different designs, using the MoES 2000 design as a starting point for modifications. The sizes of accessible cubicles vary from one agency to another. The designs by KCCA, the approving authority, only incorporate a washroom for girls and no accessible cubicle. The design from WaterAid incorporates accessible cubicles for boys and girls, a washroom for girls and urinals for boys.



Assessment of latrines in schools

Latrines in six schools were assessed, based on the above recommended standards.

Distance from classroom to latrine: Four of the facilities were nearer than 10m from the nearest classroom - the minimum recommended by the MoES (2000). However there were no odours from any observed facilities which might provoke complaints.

Path to latrine: Only two facilities had concreted paths enabling them to be used even in harsh weather, as they are not likely to get muddy and slippery. One had a well dug murrum path with hedges planted on both sides that could be used by people with visual impairment. Two footpaths had the minimum recommended width of 1200mm and were unobstructed.

Ramps: Only two facilities complied with the maximum recommended ramp gradient of 1:12. Most of the ramps had very steep slopes making it difficult to provide independent mobility for CWD.

Doors and locks: Five of the six facilities had doors opening outwards, thus allowing for manoeuvrability inside the cubicle by a wheelchair user. One facility had doors opening inwards, which would be suitable for use by visually impaired users (UNICEF et al, 2004), but difficult for wheelchair users and reduce usable space. Door locks in five facilities were too high for children using wheelchairs and small children (Photo 1). Door locks were small and therefore not easy to grip.

Support rails: Three facilities had support rails, which provide extra support for persons to squat or sit independently. None of the schools had door rails extending the full width of the door for ease of closing, nor did they have handrails next to the door for support while opening the door.

Toilet seats: Two facilities had fixed raised toilet seats (Photos 2 and 3). One facility had a moveable seat placed over the toilet (Photo 4).

Handwashing and anal cleansing materials: Hygiene promotion and practices were poor in most of the facilities. Only two facilities had functional handwashing facilities, and only one had anal cleansing materials.



Photo 1. Ramps with gradient 1:12. Note lack of platform at top of ramp and high door bolt. This would be inaccessible for a wheelchair user. (Kasumba 2012)



Photo 2. Cubicle with raised toilet seat and support rail. The space inside looks adequate, but the inward opening door (see photo 1) reduces the usable space. (Kasumba 2012)



Photo 3. Cubicle with raised seat, support rails on both sides. No room to enter cubicle with a wheelchair. (Kasumba 2012)



Photo 4. Additional accessible feature – moveable toilet seat. (Kasumba 2012)

Reasons for not implementing the recommended latrine designs

The information in this section is based on interviews with key informants, as detailed above.

Latrine designs in use:

In all facilities observed, construction is in compliance with the designs used, since non-compliance would have meant non-payment. The missing or inadequately constructed accessibility features are not a result of non-compliance, but due to the inadequate designs themselves. The existence of three different MoES designs indicates a lack of clarity on accessibility features, which is a potential source of confusion, even by the implementing ministry. This may be why different development partners feel the need to make improvements on the MoES designs, but in the process, all produce different designs.

Sanitation guidelines and standards

There is a lack of adopted accessibility standards for schools infrastructure in Uganda this being the main reason for having inadequate/ poorly designed accessibility latrines. Guidelines exist, but there are no hard copies available for reference. The Technical Handbook for Districts and Urban Councils (MoES 2000) and the Guidelines for School Sanitation (MoH/EHD et al 2001) are a good starting point that could be used; however they are not detailed enough.

Planning for general accessibility

There is a lack of joint planning between stakeholders. Even at district level there is a lack of consultation during planning processes. For example, although supervision of latrine structures is the responsibility of District Engineers, the MoES does not involve them at the planning stage but only informs them at execution stage; the monitoring aspect is not budgeted for, which would greatly affect the deliverable in terms of quality and conformity. Schools representatives are also left out during planning, and yet are expected to daily monitor progress. Supervision of construction works by technical teams is irregular; routine supervision is done by school management committees who do not have checklists for reference. Where specifications are provided, details of accessibility features are inadequate.

What was learnt

The following conclusions were drawn from the research:

- Compliance with approved latrine designs is not the problem. The different designs in use appear to be a sign of dissatisfaction with the MoES designs and the desire to improve on them.
- The lack of adopted accessibility standards for public infrastructure in Uganda contributes to the differences in design and interpretation of school latrine accessibility features, rendering constructed facilities inaccessible.
- The inclusion of an accessibility feature in the construction of a latrine does not automatically make the facility accessible. All the facilities surveyed had one or more features missing, thereby rendering them inaccessible.
- The lack of joint planning between stakeholders is likely to affect latrine construction in terms of regular technical supervision and quality of work delivered. If this is left unchecked it is likely that some accessibility features would be deemed unimportant, left out, or misinterpreted.

Recommendations

Based on the study findings, the following recommendations are made:

- There is a need to develop and adopt standards for accessible public infrastructure that will serve as a basis for the development of designs for all public facilities, including school latrines.
- The government, specifically the MoES, needs to take the lead on consultation and joint planning between relevant stakeholders in the development of accessible latrine standards, and designs, that can be developed, trialled and reviewed before being adopted nationally. Stakeholders need to include architects, engineers, disability organisations, district engineers and education officials, and any other stakeholders involved in design, promotion, monitoring and evaluation of school latrine projects.
- Accessibility audits (e.g. WEDC & WaterAid 2012) need to be incorporated into the inclusive design process to evaluate the designs once constructed, and adjust them where necessary. These should be undertaken by teams comprising relevant stakeholders, and should especially include disabled and non-disabled students, and adolescent girls. Accessibility audits should subsequently be an integral part of quality control procedures.

- Principles of accessibility and inclusive design need to be incorporated routinely in training for MoES staff, District officials and other relevant stakeholders involved in planning and delivery of school WASH programmes.

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