

Shared Sanitation in Low-income Urban Settlements in Ghana

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This policy brief presents the main results of a three-country study on Quality Indicators of Shared Sanitation (QUISS). QUISS assessed when shared sanitation is acceptable and what is needed to establish minimal acceptability requirements. Qualitative and quantitative data were collected in Ghana, Kenya and Bangladesh in 2019. This brief highlights the research findings for Ghana and provides recommendations for strengthening the acceptability, functionality and sustainability of Ghana's shared sanitation facilities in low-income urban settlements.

Key Points

- The majority of Ghanaians use shared sanitation, especially in low-income urban settings.
- The four major challenges of shared sanitation mentioned were: odour, queuing, flies and insects' nuisance, and high toilet-user ratio.
- Toilet cleanliness and quality are associated with the toilet technology, toilet location, a lockable door, existing cleaning arrangements, and floor tiling.
- The number of toilet users or its classification as an improved/unimproved toilet did not correlate with overall toilet cleanliness.

I. Introduction

Shared sanitationⁱ has immensely contributed to sanitation access, with the global percentage of users increasing from 5.4% in 2000 to 8.3% in 2017 [1]. Within Sustainable Development Goal (SDG) #6, due to the lack of quality standards, shared sanitation is only considered a “limited” solution.ⁱⁱ Quality standards and indicators are, thus, needed. Using a mixed-methods approach, QUISS identified key criteria of what constitutes “acceptable quality” shared sanitation facilities (SSF) in urban contexts.

i Shared sanitation facility (SSF) is taken to mean any sanitation facility that is used by more than one household, but not facilities the primary purpose of which is to serve a public area, such as a market or bus station.

ii Limited sanitation = Improved sanitation (facilities designed to hygienically separate excreta from human contact) that is shared by two or more households.

An overview on shared sanitation in Ghana

In Ghana, urban population almost doubled from 8.3 million in 2000 to 17.6 million in 2020, comprising 56.7% of the populace. In 2017, only 18% of Ghanaians had access to at least basicⁱⁱⁱ sanitation. In urban settings, over 60% of the population depend on SSF highlighting its importance, particularly in low-income areas (LIAs). Disregarding shared sanitation as a basic option, therefore, does not reflect the reality most Ghanaians face. SSF provide a critical sanitation alternative in high-density settings and LIAs, and serve to reduce and/or eliminate open defecation.

Policies and institutional factors relevant to shared sanitation facilities

The Government of Ghana (GoG) together with development partners has been supporting the sanitation sector, including the provision of institutional and legal frameworks to create an enabling environment for sanitation services provision.^{iv} However, these frameworks are not explicit on shared sanitation. Government policy requires that Metropolitan, Municipal and District Assemblies (MMDAs) promote ownership and the use of domestic latrines by households. [2, 3] A lack of funding for sanitation services provision is a limiting factor to adequate sanitation in Ghana as are the availability of nearby public toilets, and household toilet construction is a low priority. Other key barriers to sanitation provision in Ghana include weak enforcement of municipal bylaws and space limitation. [4]

II. Main results of the evaluation

User perspectives on acceptable sanitation and quality criteria

Users and their perspectives on sanitation and quality criteria are fundamental to consider in order to properly meet their needs with public investments, and in terms of ensuring user acceptance of available SSF to support interventions that improve public health. In a first phase, to evaluate user perspectives, we used a qualitative approach and conducted five focus group discussions (two women-only, two mixed, and one men-only) in Kumasi to evaluate how SSF users define the quality of an SSF and which aspects users consider as essential criteria for good quality SSF. [5]

In general, users deem SSF as “fit for purpose” provided certain quality standards are in place. User quality criteria were defined as those that were mentioned in at least

two different types of focus group discussions. Given this criterion, the reported quality criteria for adequate SSF are (Table 1):

- Cleanliness;
- Gender separated toilets, lighting and lockable doors (particularly important to women, providing adequate safety, security and privacy);
- Flush toilet technology;
- Effective cleaning arrangements and availability of detergents for cleaning;
- Tiled floors (improves cleanability);
- No odour/smell;
- Water availability;
- Availability of handwashing stations.

Unhygienic SSF were linked to various forms of inappropriate user behaviour: dirty toilets with used anal cleansing materials scattered on the floor, spilled water and urine, smeared faeces and blood stains, spitting, and refusal to flush the toilet after use. These challenges are amplified due to the lack of support from landlords to supervise proper user practices and the local government’s inadequate education and sensitisation programmes on improved user behaviour and commitment to effective toilet maintenance culture.

Indicators for assessment and monitoring of SSF quality

In a second phase, we collected quantitative data and used regression analysis to evaluate the indicators for assessment and monitoring of SSF quality [6]. The data was collected through a survey of 1087 households and 644 spot-check observations of individual households and shared toilets, using geographic sampling. Descriptive statistics from the household survey reveal that almost all toilets (97%) observed were improved, though 90% were

Table 1: **Quality criteria from a user perspective in Kumasi, Ghana (distribution binarised).**

User Quality Criteria	Women-only	Men-only	Mixed
Cleanliness	✓	✓	✓
Gender Separated Toilets	✓	✓	✓
Sanitation Technology (Flush WC)	✓	✓	✓
Cleaning Arrangement	✓	✓	✓
Tiling	✓	✓	✓
No Odour / Smell	✓	✓	✓
Water Availability	✓	x	✓
Lighting	✓	x	✓
Lockable door	✓	x	✓
Safety / Security	✓	x	✓
Privacy	✓	x	✓
Handwashing	✓	x	✓
Detergent	✓	x	✓

iii Basic sanitation refers to Improved sanitation (facilities designed to hygienically separate excreta from human contact) that is not shared with other households.

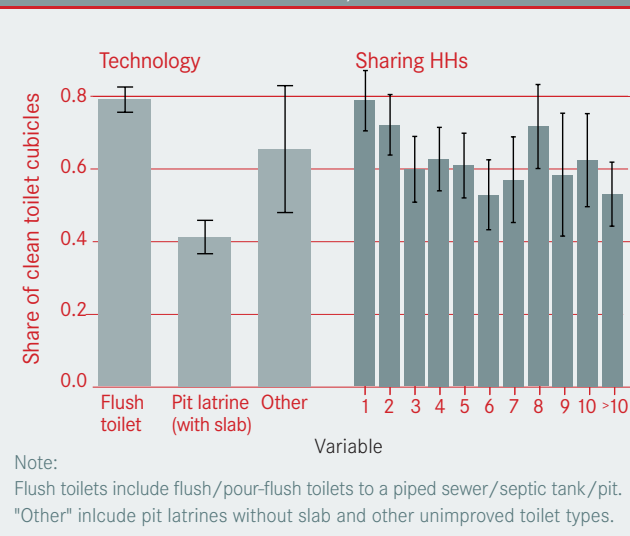
iv National Environmental Sanitation Policy (NESP), Local Government Act (Act 936), District Environmental Sanitation Strategy and Action Plan (DESSAP), Town Ordinance Law (Cap 86), National Building Regulations (LI 1630), District Assembly bylaws, Public Health Act (Act 851).

shared by two or more households (Table 2). The majority (74%) of the toilet facilities were located on the compound, and most had solid walls (96%), roofs (90%) and floors without holes (97%). Though most compounds had an improved water source onsite (70%), only 10% of the toilets had a handwashing facility with soap available. The majority (88%) of compounds also had resident landlords and almost half of the respondents reported that there was a cleaning arrangement in place (45%).

Sanitation quality covered such variables as: representing cleanliness, reported use at night (accessibility, safety and security), floor and roof without cracks/holes (safety/security), and solid walls without holes (privacy). Cleanliness was defined using observable characteristics (presence of solid waste, insects, and visible faeces). Cleanliness is highly correlated with other quality variables, implying that a clean toilet is also likely to provide safety, security, and privacy. Irrespective of the measurement method used (e.g. reported or observed), cleanliness scores were high and indicated that the majority of toilets assessed in Kumasi were clean. This also implies that most toilets in Kumasi had a low presence of insects, solid waste, and visible faeces.

Regression analysis was used to test the relationship between toilet cleanliness and sanitation indicators. Improved pit latrines (with slab) were less likely to be clean than flush/pour-flush toilets (see Figure 1). Unimproved pit latrines

Figure 1: Relationship between cleanliness and toilet characteristics in Kumasi, Ghana.



(without slab) were more likely to be clean than improved pit latrines. Nevertheless, the small number of unimproved toilets in the sample (3%) makes this result unreliable.

More importantly, the results showed that whether a toilet technology in use is characterised as improved or unimproved was not strong enough to predict toilet cleanliness and quality since these factors are determined by the specific sanitation technology type in use (i.e. flush toilet, pit latrine). Other factors that were strongly associated with toilet cleanliness and quality were the location of toilets (inside dwelling, inside compound/on plot or elsewhere), a lockable door (from the outside and/or the inside), cleaning arrangement, and floor tiling. Surprisingly, having an improved water source on the premises was found not to be associated with toilet cleanliness and quality. Counterintuitively, the number of households sharing a toilet was weakly and not consistently associated with toilet cleanliness and quality.

III. Main recommendations

SSF can be considered a basic sanitation solution for LIAs provided quality standards are met. To improve SSF quality, the GoG through the Ministry of Sanitation and Water Resources and the MMDAs should develop guidelines and bylaws that embrace the indicators essential to high-quality SSF. Contextualised standards are needed and should include:

- improved toilet technology types (e.g. Flush/pour-flush to sewer/septic/pit where water is available);
- defined number of users (per facility based on design) - tentatively not more than four households per facility;
- effective structure of social organisation (e.g. duty roster) to improve operation and maintenance of the SSF;
- An education and sensitisation programme, targeting improved toilet user behaviour and committed collective toilet maintenance culture.

Table 2: Descriptive statistics Kumasi, Ghana.

Characteristics	N = 1,087
Shared toilet (>1 household)	90%
Toilet clean (observed)	61%
Toilet clean (reported)	93%
<i>Technology:</i>	
- Flush to sewer/septic/elsewhere	55%
- Improved pit latrine	42%
- Unimproved pit/other	3.0%
<i>Location:</i>	
- Inside compound	74%
- Elsewhere	26%
Wall material (high quality)	96%
Floor material (high quality)	97%
Roof material (high quality)	90%
Handwashing facility with soap	9.7%
Improved water on premises	70%
Landlord on plot	88%
<i>Cleaning rota</i>	
- yes	45%
- no	45%
- private	9.8%

In addition, it must be guaranteed that SSF are:

- accessible and available (no restrictions, e.g. reported use 24/7, including at night);
- safe and secure (floor and superstructure without cracks/holes, functional lighting, and location inside dwelling/inside compound/on plot);
- offer adequate privacy (gender-separated toilets, and lockable/functional doors);
- clean (no solid waste, no visible faeces/blood stains/sputum, no insects, tiled floors);
- offer functional handwashing stations.

These standards can be used by the Environmental Health Officers of MMDAs during their monitoring and inspections, as well as education and sensitization campaigns in communities to ensure that the quality standards for shared sanitation are the same as those for private household toilet facilities.

Defining sanitation service levels should take into account the different contexts where sanitation facilities are shared (for example, in LIAs). Contextualised indicators provide better data for the measurement of the SDG targets, highlighting gaps and setting priorities for the

post-SDG agenda for sanitation. It is becoming understandable in the field that the current reliance on the number of households and/or users of toilets to distinguish between basic and limited sanitation should be revisited. This policy brief recommends a reclassification of the sanitation ladder based on quality indicators tailored to SSF. Further research to confirm these indicators as improved or high-quality indicators of shared sanitation is, however, needed.

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About QUISS

QUISS was commissioned by Water & Sanitation for the Urban Poor (WSUP) under the Urban Sanitation Research Initiative, funded by UK Aid from the British People. Based on an extensive survey of shared toilets and their users across cities in Bangladesh, Ghana and Kenya, as well as qualitative studies, it aimed to identify key criteria of what constitutes “high quality” shared toilets in urban contexts.

Urban Sanitation
Research Initiative

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