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**ENSURING AVAILABILITY AND SUSTAINABLE MANAGEMENT  
OF WATER AND SANITATION FOR ALL**

**Improving the quality of public toilet services in Kumasi,  
Ghana**

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*While household access to private toilets is the long-term goal in Kumasi, Ghana, it is still far from reality. As a result, large proportions of the city's population – particularly those living in low-income communities – will remain reliant on public toilets for many years to come. Standards in these facilities are often very low, and inadequate for the needs of some vulnerable groups. To improve standards, WSUP is supporting the Kumasi Metropolitan Assembly (KMA) through diverse but complementary activities including A) training of the owners and operators of public toilet blocks, B) training of Environmental Health Officers to better monitor standards in public toilet blocks, and C) working with the private sector to construct and run new facilities to meet medium-term demand. This paper outlines that there is much to be positive about regarding sanitation in Kumasi, with the potential for this model of public toilet service improvement to be expanded across urban centres in Ghana.*

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**Introduction**

There is a distinct lack of private and improved sanitation facilities in Ghana, with most households using shared public toilets (Unicef, WHO, 2015, 62). Repeated efforts have been made to improve the sanitation situation, but the country still failed to meet Millennium Development Goal 7, 'Ensure Environmental Sustainability' (Unicef, WHO, 2015, 62; National Population Council, 2014, 2). To tackle this challenge, Water and Sanitation for the Urban Poor (WSUP) is supporting Kumasi Metropolitan Assembly (KMA – the Metropolitan District in Ashanti Region) via a broad programme that encompasses both long-term efforts to increase compound sanitation and more immediate attempts to improve the standard of public latrine blocks (PLBs). Public toilet management is being improved via a system of training and monitoring, designed to augment owner and operator knowledge of hygiene and management, while also supporting the capacity of the Kumasi Metropolitan Assembly (KMA).

In Kumasi, Ghana's second city, approximately 700,000 people use the 418 public toilets at least once per day. Across Ghana, lower income populations are more likely to lack access to private facilities, with approximately 60% of the poorest communities in Kumasi reliant on PLBs (Adubofour, K. et al, 2012). Many compounds lack toilets, and in some cases where facilities do exist, tenants are not permitted to use facilities. This leaves many people highly dependent on PLBs. High demand for public toilets often leads to significant queues at peak times, and women, children and the disabled are particularly impacted (Freeman, F. 2010). Moreover, surveys have shown that many public toilets are in a poor state of repair, posing a significant threat to both public health and the environment. Kumasi is experiencing a population growth rate of approximately 5.4% and pressure on PLBs is therefore likely to increase as Kumasi's population continues to grow (Kumasi Metropolitan Assembly, 2016).

**Strategic approaches to improving sanitation in Kumasi**

Various attempts have been made to increase household access to private toilets in Kumasi, reflecting both the global position that shared toilets are 'unimproved' facilities and the local need for a facility closer to home. Despite these efforts, significant challenges remain and improvements will only be seen over the long term. It is therefore vital that communities have access to safe, hygienic and well-managed toilets in the

interim. With support from WSUP, KMA is tackling the challenges related to PLBs in Kumasi in three ways. Two of these are relatively short-term approaches, relating to A) operations and maintenance training for the owners and operators of PLBs, and B) improving KMA's overall capacity by training Environmental Health Officers (EHOs) in monitoring and evaluating toilets. The third approach is more long-term and involves support from the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) for a public private partnership to construct new facilities under a 'Build, Own, Operate, Transfer' (BOOT) model.

### **Training of Public Latrine Block (PLB) owners and operators**

The fact that PLBs will continue to be vital in Kumasi for years to come – particularly for low-income consumers – is the logic that informs the training of their owners and operators. Higher quality facilities lead to better consumer satisfaction and increased confidence in sanitation services. This is particularly important regarding maintenance and hygiene, with difficulties in keeping shared facilities clean recognised as a global issue. The first step in improving the management of PLBs in Kumasi has been the training of the over 400 public toilet owners and operators. The training was supported by DFID and USAID, and delivered by WSUP, covering public toilets in all ten Sub-Metropolitan Districts (SMDs) of Kumasi. These sessions covered financial management, waste disposal and handwashing promotion. By including the owners in the training, it is hoped that they will become more responsive to maintenance requests from their operators, undertaking repairs and renovation in timely fashion. After receiving training in business management and record keeping as well as hygiene and maintenance, PLB owners and operators are in a stronger financial position to maintain their facilities.

### **Improved monitoring via Environmental Health Officers (EHOs)**

At the heart of improving the quality of the management of PLBs is the need for better monitoring. Lack of resources means monitoring has been irregular, with little planning. As well as causing difficulties relating to maintaining hygiene standards, this absence of monitoring results in low levels of accountability and clarity concerning the behaviour of PLB owners. It is difficult for consumers to make complaints when KMA is unable to monitor facilities, and consumers remain in a weak position. To ensure good standards of knowledge, three two-day trainings were conducted in October 2015, which were attended by 127 EHOs from the Environmental Health and Sanitation Department (EHSD). A training needs assessment showed that the EHOs had weak knowledge on indicators for privacy, security and safety, and no knowledge on public toilet contracts issues and fee charging. The training sessions covered monitoring and evaluation key performance indicators and knowledge of data collection forms. They also covered the hygiene of public toilets and indicators of cleanliness of surroundings; how to describe and rate a public toilet with good hygiene conditions; the privacy, security and safety indicators used in monitoring performance of public toilets and rating of adequate security of a public toilet; and the indicators for assessing user complaints on a public toilet facility.

The monitoring of public toilet facilities is carried out by EHOs from the EHSD, who report to the Monitoring and Validation Team (MVT). The introduction of a standardised monitoring process supports comparison across Kumasi and enables the EHSD to take the owners of PLBs to court for neglecting facilities. Monitoring will be carried out quarterly, with the data collated by the MVT. Once a year, high-achieving toilets are to be recognised for their high quality by the public awarding of a certificate. Efforts are being made to seek innovative ways of funding this process of monitoring and awards to ensure long-term sustainability. Over the long term it is envisaged that monitoring could be financed by the surcharges paid by the owners of PLBs to the municipal assembly or through corporate partnerships.

By comparing results from the pre- and post-training knowledge assessments, the EHOs' knowledge level showed improvement after the training. However, they may still face challenges in their work due to the political dimension of public toilets. PLBs may often be owned or operated by Assemblymen or other politicians or political parties, which makes it more difficult to hold owners to account (Caplan, K. 2010). This underlines the fact that better training and monitoring will need to be supported by concerted political will to achieve high quality PLBs.

### **Analysis of monitoring data**

In October 2015, the EHO teams assessed the 418 public toilet blocks in Kumasi, scoring them on 22 different indicators. Each indicator receives a score from a maximum of five, with a different weighting applied to each indicator according to its agreed importance to give a final score.

Box 1: Lowest-scoring indicators for Kumasi PLBs (out of 22)		
<p><b>Complaints Management [0.33/5]</b></p> <p><i>How well are complaints managed (presence of complaints box, record of complaints, and complaints process?)</i></p>	<p><b>Water Available for Women &amp; Girls [0.99/5]</b></p> <p><i>What is the level of availability of water and facilities for washing for women and girls during their cycle?</i></p>	<p><b>Disability-Friendly [1.07/5]</b></p> <p><i>How disability-friendly (or mobility-friendly) is the facility (e.g. ramps, rails, etc.)?</i></p>
<p><b>Signage [1.28/5]</b></p> <p><i>How prominent and legible is the signage outside (e.g. male/female, disabled, etc.) and inside (e.g. instructions on using the toilet) the facility?</i></p>	<p><b>Child-Friendly [1.70/5]</b></p> <p><i>How child-friendly is the facility in relation to fees and toilets (smaller toilets or toilet seats, lower sinks for handwashing, lower handles that can be reached, etc.)</i></p>	<p><b>Water Available for Handwashing [1.71/5]</b></p> <p><i>What is the level of availability of water and facilities for handwashing, flushing, soap, paper towel/dryer and hand sanitizers to users?</i></p>

Analysis of the scores enables deeper understanding of areas that require additional support. While no indicator scored close to full marks, some scored very poorly, indicating a need for major improvement. Overall, six indicators, outlined in Box 1 above, scored an average of below 2.0. These scores are low in comparison to the other 16 indicators (which have a combined average of 2.8 versus an average of 1.18 for the worst six), indicating substantial relative weakness in these areas. Some of the lowest scoring indicators relate to issues of access and hygiene, a significant cause for concern. It is obvious that women, children and the disabled still face particular challenges when using public toilets. The data will inform future trainings for the owners and operators of PLBs, as well as any future public private partnership (PPP) contracts.

Box 2: Highest-scoring indicators for Kumasi PLBs (out of 22)		
<p><b>User Fee [4.29/5]</b></p> <p><i>Is the user fee in line with KMA's regulated fee?</i></p>	<p><b>Operational Hours [3.67/5]</b></p> <p><i>Are operational hours in line with peak times?</i></p>	<p><b>Electrical Safety [3.22/5]</b></p> <p><i>How safe is the electrical wiring (e.g. exposed wires)?</i></p>
<p><b>Internal Floor Safety [2.92/5]</b></p> <p><i>How safe is the flooring of the public toilet?</i></p>	<p><b>External Cleanliness [2.86/5]</b></p> <p><i>How clean is the environment from litter?</i></p>	<p><b>Security [2.72/5]</b></p> <p><i>How adequate is the privacy and security provided by the external doors and windows?</i></p>

The top performing indicators are summarised in Box 2. Across all toilets, the average scores of these indicators were above 2.72 of 5. This demonstrates that there are still improvements needed before toilets reach a satisfactory level in these indicators, but also shows that the initial standards are relatively high when compared to the other indicators. Only 'User Fees' scored an average of greater than 4/5, which will be important as efforts to increase the number of private owners and operators of toilets continue.

The data shows variance in performance across Kumasi's Sub-Municipal District Council areas (SMDs) and between individual toilet blocks. The scores were collected by SMD, using the old 2005 system of ten SMDs in Kumasi, namely Asawase, Asokwa, Bantama, Kwadaso, Manhyia, Nhyiaso, Oforikrom, Suame, Subin and Tafo.<sup>1</sup> There are some differences in the quality of the management of PLBs across the SMDs.

However, the SMDs were tightly clustered, with all but two of the ten scoring between 2.3/5 and 2.5/5. The two highest scoring SMDs were Subin (2.6/5) and Bantama (2.9/5). Across individual toilets, average scores range from a low of 0.3/5 (PLB in Manhya) to 4.3/5 (PLB in Asokwa).

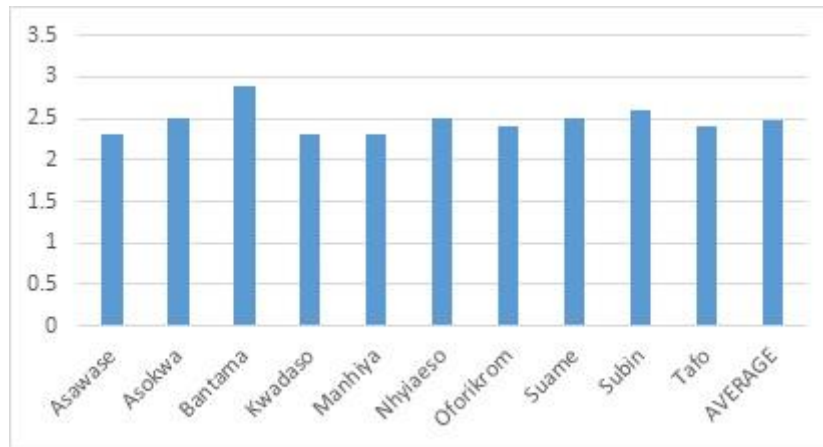


Figure 1. Average Public Toilet Score by Sub-Metropolitan District, Kumasi

Source: WSUP

#### Analysis of monitoring data: conclusion

The monitoring system is detailed enough to provide information on quality and to direct future interventions, yet simple enough to enable repeated use by the EHOs. Regular use of the indicators will allow the development of a detailed map of the quality of PLBs across Kumasi. The data demonstrate the need for significant intervention, as very few of the 418 toilets achieve anywhere near acceptable levels of quality – only 14 out of 418 toilets scored 4.0 or above. Moreover, identifying indicators with the lowest scores will allow a more targeted approach to improving the quality of service provided. In areas where infrastructural weaknesses are the likely cause of lower scores – such as ‘Disability-Friendly’ – the data provide enough information to design interventions targeting specific issues. As the database expands and the approaches supported by WSUP gain traction, the data will play an important role in shaping the direction of KMA’s strategy.

#### Renovation and rehabilitation of Public Latrine Blocks under a BOOT model (Build, Own, Operate, Transfer)

Across the Kumasi Metropolitan District, many public toilets are in a poor state of repair, needing extensive renovation and rehabilitation. However, some existing toilets are in such a poor state that they are beyond rehabilitation. The only solution for these facilities is to demolish them and build new toilet facilities in their place. Therefore, in order to improve PLB quality, there needs to be a substantial injection of resources into public toilets.

KMA has experienced challenges in facility management, in part due to the high level of demand. KMA also lacks the necessary financial and technical resources to meet the challenges alone. It is for this reason that attempts at further involving the private sector in the construction and operation of PLBs are being considered. Currently, KMA is fully responsible for the construction and provision of public toilets, but the Constitution contains provisions for involving the private sector via contracts, franchises and concessions. To investigate the best ways of rehabilitating poor quality facilities and the longer-term management of facilities, WSUP supported KMA under a PPIAF-funded scheme to renovate poor quality public toilets and to construct new facilities through increased private sector investment. To initiate this process, PPIAF hired Ernst & Young (EY) to conduct a feasibility study mapping out financing options for improving the quality of infrastructure and management of public toilets. The result of EY’s report was the recommendation to

create a public private partnership (PPP) through which public toilets are operated under a Build, Own, Operate, Transfer (BOOT) model (see Box 3 below).

### **Box 3: Key features of the BOOT Model**

- A Public Private Partnership (PPP) Project Company would design, build, finance, operate and maintain the toilets for a 20-year concession period, after which the assets would be transferred back to KMA;
- The Company would directly collect user fees and use it to cover their costs;
- The Company would pay a monthly franchise fee to KMA, calculated as a percentage of revenue;
- Revenues 10% higher than assumptions made in the financial model would be paid to KMA; and
- Donor funding and cover may be sought to insure KMA's termination guarantee.

A key finding drawn from surveys informing the feasibility study was that consumers would pay a slightly higher fee to use better quality public toilets. Typical costs for public toilets in Kumasi range from 10 Ghana pesewas (GHp10) to 60 Ghana pesewas (GHp60) (approx. USD 0.02 – 0.14, accurate to June 2015). These fees are dependent on the type of toilet and the standard of services. Companies that offer high quality services would likely be able to charge towards the higher end of the fee range if they are providing Water Closet (WC) facilities. Analysis shows that this model could be viable if the fee per use rises to GHp54, indicating that it would only work if the companies involved operate WC facilities. If this model became widespread in Kumasi, it is likely that the average fee-per-use could rise for consumers. However, this fee rise would imply a necessary rise in the quality of services provided.

EY also proposed that concessions to private sector actors be granted for at least 30-50 facilities within close proximity, to promote the financial viability of the model. Further analysis concludes that there is significant interest in the BOOT model on the supply side among multiple small and medium sized companies, the majority of which have experience in managing toilets or waste. Equity providers approached as part of the study also expressed interest in the project and the model, and indicated that they would be willing to lend Ghanaian cedis (Ernst & Young, 2014). As such, the BOOT model is ready for implementation.

### **Where are we now?**

This strategy to improve the quality and management of public toilets is well under way, with further elements to be implemented over time. Hygiene, management and maintenance training has been completed for owners and operators of PLBs, which is the first step to improved quality. Increased knowledge means owners and operators are better placed to provide a high-quality service to their customers, resulting in improved customer satisfaction and hygiene. Additionally, the EHOs have been trained in the indicators and monitoring approaches. As well as enabling the enforcement of standards among PLBs, this should help to incentivise higher performance via public recognition for the best toilet blocks. Over time, this monitoring process will create a database of indicators and toilet performance, allowing detailed analysis both in terms of specific indicators and geographical regions of Kumasi. This data would then allow more targeted interventions over time, with a greater focus on those PLBs that need most support.

While training and monitoring are having positive effects now, there remains a need for longer-term improvements to PLBs across Kumasi. It is expected that the BOOT model discussed above will be implemented within the next few years once final approval is received, leading to the construction of at least 30 new toilets. Discussions are underway for potential support for the implementation of the process. The construction of new facilities – and renovation of older ones – may take time, but it should cut down on waiting times for consumers, improve overall service quality, increase revenue and reduce costs for KMA, and further involve the private sector in sanitation in Kumasi. Overall, these are positive outcomes, especially as WSUP and its partners continue to look towards the long-term goal of increased levels of compound sanitation.

There is a need for better standards among PLBs in Kumasi, and the above tools – training, monitoring, incentives, and private sector involvement – will contribute to raising the quality of those facilities. However, PLBs are not an adequate long-term solution. As a result, KMA, with WSUP support is focused on improving access to sanitation at the compound level. This support includes building the institutional and

legislation capacity of the Assemblies; working closely with private sector manufacturers and suppliers and financing institutions to build the supply side of the private market; and creating advertising campaigns alongside a network of salesmen and community pioneers to build demand. WSUP is also continuing its support for EHOs in their monitoring and enforcement work, and working with local leaders and the courts to improve the strength of this enforcement. This is a long-term approach, as focused on changing mind-sets and beliefs as it is on the physical and infrastructural side of sanitation improvements. The methods trialled by KMA and WSUP have the potential to be rolled out across the country, with the multi-pronged, multi-stakeholder approach expected to have a positive impact on the sustainability of this work. When taken together with the PLB-related approaches outlined in this paper, there is reason for optimism that the necessary strategies are being put in place to improve sanitation in Kumasi in the medium and long term.

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### References

- Adubofour, K., Obiri-Danso, K., and Quansah, C., (2012). *Sanitation survey of two urban slum Muslim communities in the Kumasi metropolis, Ghana*. Environment & Urbanization Vol 25, No 1, pp. 1–19.
- Caplan, K., (2010). *Quick Stakeholder/Context Analysis of Public Toilets in Kumasi, Ghana: Initial Recommendations for WSUP*. Unpublished report. Building Partnership for Development in Water and Sanitation (BPD): London, UK. IRC Wash.
- Ernst & Young (2014). *Assessing PPP options to improve provision of public toilet facilities in Kumasi*. Unpublished report prepared by Ernst & Young with funding from PPIAF.
- Freeman, F. (2010). *Ghana: The Waste Land*. World Policy Journal. Vol. 27(2): 47-53.
- Kumasi Metropolitan Assembly (2015). *Brief on KMA*. KMA GOV.
- National Population Council, Ghana (2014), *Policy Brief IV*, p. 2.
- Unicef, WHO (2015): *Joint Monitoring Program, Progress on Sanitation and Drinking Water; 2015 Update and MDG Assessment*. WSS Info, p. 62.

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### Notes

<sup>i</sup> In 2012, the Asokore Mampong Municipal Assembly was created from Asawese Sub-Metropolitan District Council, leaving KMA with nine SMDs. However, in this paper, all ten (10) areas covered by the monitoring and data collection will be referred to as SMDs for ease of comprehension.

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