

A tale of clean cities:

Insights for planning urban sanitation from Kumasi, Ghana



Key learning points

- Sanitation progress in Kumasi has been a long-term effort championed by a technically strong municipal Waste Management Department, supported by a wide range of development partners.
- Despite some political consensus around the importance of sanitation, and partly due to inadequacy of monitoring systems, financial support has remained low, limiting progress.
- Open defecation has been almost eliminated through the expansion of public toilets, prioritised at the expense of private toilets because of housing constraints.
- Enabling policies catalysed private sector investment, improving management of public toilets and service levels across the sanitation service chain.
- Disparities remain in terms of reach and quality of these services, which are poor in low-income areas.
- Sanitation planning exercises helped forge a shared vision on how to advance towards sustainable service delivery.
- The quality of these ‘learning by doing’ planning processes was more influential than were the resulting plans.

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Research project

This case study is part of a research project by Partnerships in Practice for WaterAid to learn from sanitation planning processes of cities in developing countries that are making good progress in provision of sanitation services to all. The team focused on key drivers affecting progress, the role external agencies played in supporting this process, and the extent to which slums were included and the most vulnerable affected.

San Fernando la Union in The Philippines, Visakhapatnam in India, and Kumasi in Ghana were studied. The specific insights captured in this report are also integrated in a broader synthesis report combining the case study learning with findings from literature and conversations with urban WASH experts.

The three case studies and the synthesis report are available at www.wateraid.org/ATaleOfCleanCities.

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Cover image: Kumasi Market. Credit: Latitude Canada.

Summary

With an estimated population of 2.4 million, Kumasi is the second largest and fastest growing city in Ghana. A key transport hub and vibrant commercial centre, it attracts a large transient and migrant population.

Whereas one in five Ghanaians and 45% of the population of Accra still resort to open defecation, Kumasi has almost eradicated it. However, access to improved household sanitation remains very low because the local housing context has favoured development of shared sanitation. About 40% of the population still rely on public toilets.

Building on a strategic sanitation plan developed in the early 1990s and support from development partners, the city made strides in implementing an integrated approach to urban waste management. Different segments of the sanitation service chain have been addressed and progress has been achieved on both liquid sanitation and solid waste management, albeit sometimes carried out only at pilot scale. Through a wide range of innovative initiatives, Kumasi has built a reputation as a sanitation pioneer in Ghana and the region.

A large proportion of the progress was achieved by successfully tapping into the private sector potential, expanding the city's capacity to meet rising demand while gradually increasing levels of service. Strong internal capacities were critical in triggering and sustaining momentum around sanitation over more than two decades, in the face of chronic political, institutional and housing obstacles, which prevented progress on household sanitation.

1. Context

Kumasi is in the Ashanti Region, a rainforest area in south-central Ghana. With an estimated population of 2.4 million, it is the second largest city in the country. Its geographic location, coupled with a good road network and airport, makes Kumasi the preferred trading centre for most of the surrounding regions, and an important commercial centre for West Africa. It is a strategic transportation link between the south and north of Ghana as well as the surrounding landlocked countries.^a Kumasi's economy is characterised by a dynamic peri-urban agriculture, an industry boosted by wood processing, breweries, and construction, as well as mining in the surrounding area. The informal sector is very strong.



With a population almost doubled since 2000 and growing by an estimated 4.8% annually, Kumasi is Ghana's fastest growing city. The metropolis attracts a large transient and migrant population from rural areas of Ghana and other West African countries. Over a third of the population are migrants.¹ There has been a marked increase of the population density,^b an expansion of low-income settlements, and a booming of non-resident (i.e. floating) population (an estimated 500,000, 21% of the population). The intense demographic pressure on the area is leading to growing concern about environmental degradation due to poor sanitation and contamination of surface water bodies.² The climate is defined as tropical wet and dry, with relatively constant temperatures throughout the year. Precipitation averages 1,400 mm annually, and flooding is frequent.

Kumasi Metropolis consists of 48% urban, 46% peri-urban and 6% rural areas. Most communities have a mixed socio-economic profile. Those regarded as predominately low-income are located in the north and eastern parts of the city. The city is administered by the Kumasi Metropolitan Assembly (KMA), which consists of 92 elected members, 43 appointees, 10 MPs and the Mayor serving as chief executive. KMA has nine Sub Metropolitan District Councils, 21 Town Councils and 92 Unit Committees. The institution of chieftaincy is very pronounced in the Ashanti Region and plays a significant role in its management, especially in the area of land administration.³

This report analyses the progress achieved on sanitation in the city since the early 1990s. By then, sanitation governance and services had collapsed into chaos, and the unhygienic management of public toilets and household pan latrines had triggered a return to open defecation. However, Kumasi Sanitation Programme (KSP), an initiative supported by the UN Development Programme and the World Bank between 1989 and 1994, proved a real springboard. The turn of the millennium saw the city promote

^a [Kumasi Investment Guide 2013](#).

^b 9,434 persons per km². Household size is 5:1. The number of households per house reaches 3.4.³

private sector participation to sanitation services, which catalysed private sector investment in the various segments of the sanitation chain of services.

The findings presented here draw from a review of the literature (see References) and from a set of site visits and interviews with key informants (see Annex 1) carried out in April 2016. A stakeholder feedback meeting organised on the last day of the country visit allowed validating and refining of the preliminary findings (see the list of participants in Annex 2).

2. Sanitation progress and gap areas

2.1. Current status of sanitation services

a) Kumasi in the Ghanaian context

Ghana significantly lags behind in provision of sanitation services – only 15% of the population uses improved sanitation facilities (the MDG target was to reach 54%) and between 1993 and 2008 coverage only increased from 10% to 18% in urban areas. An important fact to consider is that 58% of all Ghanaians rely on shared facilities, which are public toilets or facilities shared by several households and are generally considered ‘unimproved’ according to JMP Standards.

Public toilets are the facility used by the highest proportion of households at national level (36%), and notably in urban areas (39%).⁴ A similar pattern can be observed in Kumasi, where the vast majority of the population rely on shared or public sanitation – 39% of the population use public toilets. It is estimated that only 3% of the population of Kumasi practise open defecation, whereas across the whole country one in five do.¹

b) On-site sanitation – public toilets



Picture 1: Public toilet, premium level of service

An estimated 39% of Kumasi’s population makes daily use of the 359 public toilets housing 5,792 toilet cubicles in the ten sub-metros.¹ These pay-per-use facilities use different technologies – from improved pit latrines to pour-flush or water closet toilets – and provide varying levels of service. The poor management of these public toilets by

sub-metropolitan districts and assembly members has been a concern for many decades. The introduction of new management models in the mid-1990s allowed private sector participation through build-operate-transfer, rehabilitate-operate-transfer or build-operate-own agreements. Improvements were initially rather slow, and not always convincing, according to different assessments.^{2,5} In 2015, 54% were operated by the private sector,¹ but this proportion has increased significantly in the past year – as the mandate of many Assembly members came to an end, the toilets they managed have been contracted out to private operators. According to several informants, almost all 359 public toilets are now privately managed.

Progress has become increasingly tangible in the past decade or so, both in the level of service provided and the services' inclusiveness and sustainability. Marked contrasts remain between low-end facilities in low-income neighbourhoods and high-end facilities in busy areas. In the former, toilet blocks are often a series of dirty cubicles with simple drop holes, provide little or no water for handwashing, and no lighting; the latter offer premium services, typically with perfectly clean water closet toilets in well-lit and ventilated blocks with tiled walls and floors, provision of water in cans or plastic kettles, toilet paper, and access to handwashing basins with liquid soap. Although disparities in levels of services and fees remain, which largely reflect the location and the corresponding capacity of its customers to pay, public toilets now collectively provide significantly better services than they did a decade or two ago. This is shown by the rising proportion of public toilets equipped with flush toilets, which increased from 34% to 57% between 2008 and 2015 as a result of KMA's push to phase out the use of dry sanitation in public toilets.¹

Social norms with regard to sanitation services are being created as a result of the increased quality of public toilets. Customer satisfaction is generally high, especially for premium services. Also, handwashing with soap has been increasingly promoted as a standard practice in public toilets (although not in the lowest-end toilets), partly as a result of awareness raising campaigns and training sessions directed at toilet operators.

c) On-site sanitation – household toilets

Considering that an estimated 75% of the population live in compound houses (multi-occupancy houses), most of the population using private sanitation (58%) presumably use a shared or communal facility.¹ Such facilities consist of either flush toilets, ventilated-improved pit (VIP) latrines and Kumasi VIP (KVIP)^c pit latrines, and a small proportion of pan-bucket latrines, which have been gradually phased out since the mid-80s – 20% of the population used them in 1993 compared to 8% in 2005.⁶ Statistics vary significantly across sources, and it is difficult to gain an accurate overview of the different types of facilities used in the city (see Annex 3 for recent estimates).

^c The KVIP design was developed in the 1970s. The ten-seater responded to the high degree of dependence on public toilets. The one, two and three-seater KVIPs were later developed to meet the needs of on-plot sanitation. The KVIP is designed with alternating pits.⁷

Household sanitation is probably the area of sanitation services where progress has been the slowest during the past decades, and where great efforts are going to be needed to help the population gradually move up the sanitation ladder and shift from public toilets to improved household sanitation. Reliance on public toilets slowly declines as newly built houses are equipped with household toilets, but no programme has succeeded in catalysing the transition towards improved household toilets. “At this pace, it will take another century to reach full coverage,” noted a local senior expert.

Key initiatives supporting the development of domestic toilets in the past couple of decades include Kumasi Strategic Sanitation Programme (1989–1994) funded by UNDP and the World Bank and the World Bank Urban IV Programme launched in 1999. The household sanitation component of Kumasi Strategic Sanitation Programme led to the piloting of KVIPs in 256 households. The initiative, taken forward under the National Community Water and Sanitation Programme in 1994, was reinvigorated under the Urban IV Programme to help low-income groups comply with the policy banning pan toilets. On the software side, in 1991, a health education unit was established with the support of the then British Overseas Development Administration.⁷ Well resourced, it ran a learning centre and undertook ongoing awareness raising activities, fostering demand for improved sanitation. Dissolved after five years, KMA recently revived the learning centre with its own resources to support the demand-creation side of household sanitation interventions.

The past five years have seen promising initiatives seeking to address the complex housing constraints on the development of household sanitation, and the importance of putting in place sustainable incentives for the population to achieve progress not bound by project timeframes. The Clean Team model is one such initiative, launched in 2011 by Water and Sanitation for the Urban Poor (WSUP). Clean Team brings an innovative technology – an in-home toilet with odour-control chemicals and removable water cartridge particularly adapted to prevailing tenancy and space availability constraints – and a new business model.⁸ In May 2016, WSUP reported more than 1,300 households served by Clean Team, corresponding to about 64,000 users (about 2.5% of the population).

Increasingly, the approaches taken by KMA emphasize the need to put in place mechanisms reducing dependence on donor subsidies. KMA recently engaged in a five-year programme supported by WSUP, DFID, USAID and the Bill & Melinda Gates Foundation to increase the access to compound toilets for 100,000 residents in low-income areas. KMA has partnered with WSUP and HFC Boafo, a Ghanaian micro-finance institution, to implement an approach providing financing directly to households. HFC Boafo agents provide follow up on sanitation loans, to be repaid within five years, after which a rigorous enforcement of the law stipulating the construction of household toilets shall prevail. WSUP and KMA are also seizing this opportunity to introduce novel technologies.^d

^d This includes prefabricated plastic septic tanks and the Biofil, a vermiculture system.

c) On-site sanitation – transport, treatment, reuse



Picture 2: Dompouse faecal sludge (septage) treatment plant

Most of the desludging of the septic tanks in Kumasi is done by vacuum trucks. Although a clandestine practice, manual emptying is not a marginal economic activity – a recent study suggests that most dry household toilets (which 18% of the population uses) are emptied manually.¹

Much progress has been achieved in mechanised desludging services. Although KMA, with its four vacuum trucks, was overwhelmed by escalating demand in the early 1990s, it can now rely on effective desludging services delivered by a fleet of 48 vacuum tanker trucks owned by 37 licensed operators. Both the fees these operators charge to users and those they pay KMA to dump their load are fixed by the Assembly.^e 95% of the sludge collected is being tipped as mandated at the faecal sludge treatment plant in Dompouse, located in the south of the city.¹ The main challenges truck operators face relate to the likely continuous increase of the dumping fee, not yet matched by a rise in the desludging fee they charge. The difficulty to procure relatively new trucks is another issue.

Although good progress has been made too on the treatment side of faecal sludge management, KMA has not been able to maintain and expand the capacity of treatment put in place during the past decade. Dompouse septage plant consists of a series of lagoons built in 2004 under the World Bank Urban IV Programme and with a 15-year design life. A recent assessment suggests the plant is operating at, close to, or above its capacity.¹ Furthermore, treatment performance has gradually declined because of lack of regular maintenance by KMA. Critical siltation of the first few ponds strongly affects sludge circulation, drastically reduces retention time, and leads to discharge of barely treated effluent into the Ofin river. Despite a recent increase, the dumping fee

^e Users have to pay respectively 200, 225, and 250 cedis for [0-5m³], [5-6m³], and >6m³ loads. The corresponding tipping fees are 10, 1,5 and 20 cedis. 1US\$ = 4 cedis.¹

charged to vacuum tanker operators remains well below the requirements to cover maintenance costs. KMA and WSUP are exploring the possibility of desilting the lagoons to recover an adequate treatment capacity, and simultaneously establish financial conditions to allow effective operation and maintenance.

KMA also included an ambitious composting element in its strategic planning for integrated waste management, and a pilot co-composting plant was built in 2002. It involved a dewatering process to convert faecal sludge into biosolids, followed by mixing of these biosolids with solid waste during composting. The viability of the approach was affected by technical and economic challenges, including the relatively high cost of the compost compared with poultry manure. The pilot project was not pursued. The hoped-for implementation of a composting unit in Dompause, complementing the existing sanitary landfill and septage treatment plant, did not take place.

d) Off-site sanitation

A small sewerage scheme serves about 300 households in Asafo, a middle- to low-middle-income district in the centre of Kumasi. This is one of the few low-cost sewerage schemes in sub-Saharan Africa. It discharges in a lagoons-based treatment plant. Two other small systems combining a sewer network and a lagoon-based treatment plant serve the residents of Chirapatre and Ahensan estates. All three systems have been franchised to private contractors who operate, manage and collect user fees, the amount of which is fixed by KMA.

Maintenance of these systems appears to be challenging, in part because of the inefficient recovery of user charges (the payment default rate reaches 40%). Despite their sub-optimal operation and maintenance, these small schemes have shown the technical relevance of low-cost sewerage. The capital cost of such infrastructure being prohibitively high for KMA and implying significant donor funding, these initiatives could not be scaled up to cover communities. Off-site sanitation is marginal in terms of service coverage. Estimates of the percentage of the population connected to a sewer system vary from less than 1%⁹ to 4%.¹

e) Solid waste management

Over a seven-year period, KMA has been able to put in place a solid waste management programme ensuring effective collection, transport and disposal in a sanitary landfill site through full cost-recovery operations. This is clearly an area of great achievement for the city.

In middle-income areas, a system of containment in dustbins (120–240 litres) and collection by private companies charging monthly fees has been put in place. A different approach prevails in less affluent communities, where proper access roads are often an issue – an agent who collects pay-per-use fees staffs a communal container. A financial incentive ensures good waste compaction in the container, which is regularly trucked by a private service provider to the landfill site in Dompause. The landfill operations are

managed by a private company under KMA supervision. There is scope for progress towards best practices in the management of the landfill. Work is ongoing to improve collection of the gas produced by the landfill in view of its commercialisation potential. Likewise, segregation at source and recycling, experimented at pilot scale as noted above, remain to be implemented.

Much improvement has been noted recently with regard to the cleanliness of streets. KMA organised an effective programme combining street sweeping (night shift in the Central Business District) and the regular cleaning out of primary and secondary drains to mitigate the risks of flooding.

2.2. Steps towards city-wide sanitation

a) Political instability and the collapse of sanitation governance

The analysis of the history of sanitation development in Kumasi during the past 30 years sheds light on critical junctures, which have largely influenced the current status of services. The period of political instability characterised by a series of coups d'états, which affected Ghana from the 1970s through the late 80s, is the first critical period. The successive military regimes typically lacked the capacity to govern the various fields of the economy, and tended to focus on the most strategic areas. This period thus saw a gradual breakdown of most structures of governance, and sanitation was especially affected.

In addition, the Government's adoption of the World Bank/IMF structural adjustment programme (1983–1991) implied the rationalisation of the public sector work force. In this process, the municipal sanitary labour workforce, which played a key role in the operation of pan latrines, was downsized. Levels of service worsened to a point where the dramatically unhygienic management of public toilets and household pan latrines triggered a return to open defecation. In an effort to mitigate public health risks associated with this chaotic situation, the Committee for the Defence of the Revolution took over all public toilets and introduced user fees for operation and maintenance. The improvements which ensued were not sustained due to the lack of clear and well-enforced accountability mechanisms.

b) Kumasi Strategic Sanitation Programme: a springboard for the city

Kumasi Strategic Sanitation Programme, supported by UNDP and the World Bank in 1989–1994, is a second critical juncture in Kumasi's path to improve its sanitation services. Through the programme, on-site and off-site sanitation services across the sanitation value chain improved, comprehensive reforms were passed, and the Waste Management Department was established, allowing the development of a strategic sanitation plan for the city. Kumasi Strategic Sanitation Programme brought together a team of young, highly skilled and committed professionals and put them in optimal conditions to draw a long-term sanitation development path for the city. Well resourced and led by an inspirational mentor, the project structured a shared vision through a learning-by-doing process, which informed programmes during the 1990s.

c) Public-private partnership policies tap into the potential of private sector participation

Although the 1990s resulted in a shared vision for sanitation development in Kumasi, practical knowledge on how to achieve it, and the building of momentum around sanitation, budgetary allocations from KMA to the sector did not increase. The enactment of national policies enabling greater private sector participation (referred to as the 'PPP policies') by KMA in 2001 was a turning point, promoting a delegated approach to sanitation services and catalysing private sector investment in the various segments of the sanitation chain of services.

2.3. Unpacking success

a) A national and regional pioneer

The significance of Kumasi's sanitation progress is especially notable when viewed from a national perspective. Kumasi has almost eradicated open defecation, whereas 45% of the population of Accra^f still practise it. This is a success given the lack of an enabling environment nationally – according to the Chief Officer of the UNICEF WASH unit, eliminating open defecation in Ghana could take 500 years at the desperately slow pace at which strategies, laws and interventions are currently being implemented.¹⁰

The improved quality of services in public toilets is also outstanding when compared to other cities. Profits generated by toilet operators seem sufficient to keep them well engaged in the business and – with the exception of low-end facilities – seeking new acquisitions and exploring scope for efficiency gains, such as water saving technologies, which can reduce both the operators' water bills and the frequency at which desludging is necessary. Despite their incapacity to access loans at decent rates from banks, dynamic operators are expanding their activities and taking their know-how to other cities – a clear signal of the relevance and sustainability of the model promoted in Kumasi.

The strategic sanitation plan developed for Kumasi in the early 1990s drew a pathway for the implementation of an integrated approach to urban waste management, addressing the different segments of the chain of services, from waste collection and the containment of excreta to their disposal or treatment and reuse or recycling. The wide range of initiatives and programmes the city previously conducted on these segments, albeit sometimes only at pilot scale, generally introducing innovations (technological, institutional, or financial), reflect the pioneering nature of this path.

Although certain segments of service show major progress (e.g. waste collection, public toilets, transport of waste and faecal sludge), others remain affected by profound challenges. The faecal sludge treatment plant does not perform well, and, more generally, KMA and its partners face chronic difficulties to properly operate and maintain all treatment facilities (i.e. sewerage and faecal sludge treatment plants and landfill site).

^f According to the Deputy Minister of Local Government and Rural Development. ([GNA 2015](#))

Yet, even in this area with considerable scope for progress, Kumasi performs significantly better than do all other Ghanaian cities and most West African cities. Cities equipped with faecal sludge treatment facilities are rare, and even rarer are those enforcing legislation against illegal dumping as successfully as Kumasi.

b) Pro-poor approaches and inclusive progress

Most of the initiatives aiming to improve access to household sanitation during the past decade (see section 2.1.c) have intended to prioritise low-income groups. Both Kumasi Strategic Sanitation Programme and the Urban IV programmes have put in place subsidy schemes to help them acquire KVIP latrines. But several informants concurred that the targeted population group were not reached effectively under Urban IV programme.

A first challenge stems from the absence of a clear identification of who the urban poor are and where they live. Pockets of poverty have been identified, but socio-economic heterogeneities in given areas have complicated targeting efforts.¹ Another difficulty stems from the housing context prevailing in Kumasi – 70% of the population, including most of the urban poor, are tenants, and as such are rarely in a position to influence landlords to build a toilet instead of converting available space into rooms for rental.

The Clean Team's approach seeks to address this problem; likewise, the scheme recently introduced by WSUP, KMA and HFC mentioned earlier allows people to pay back their loan in instalments over five years. This helps low-income households to access household sanitation. Furthermore, if KMA succeeds in enforcing the law stipulating household toilets to be built in every compound, landlords will enter the scheme.

As noted, much of the progress achieved on sanitation, from a user's perspective, took place at the level of public toilets and desludging services. The overall improvement in the quality of service provided in public toilets arguably benefits the whole population. The fee charged by the operator is directly correlated with the level of service and degree of cleanliness of the toilet. Whereas KMA initially capped this fee at 0.2 Cedi (US\$0.04), flexibility was gradually introduced and fees now respond to the laws of supply and demand. Prices are therefore largely informed by what operators recognise as users' ability and willingness to pay for services; operators charge as high as 0.5 Cedi for premium toilets in the city business district and as low as 0.1 Cedi in remote, non-refurbished and ill-maintained facilities. Free access is granted to children aged up to ten years and people aged 65 years and older.

As for the impact of the improved desludging services on the poor, the greater responsiveness of vacuum tankers since the opening of the market to private operators has arguably progressively improved the hygienic conditions of toilets, regardless of the socio-economic profile of users. The approach Kumasi has taken, strongly relying on private sector participation, has implications in terms of equality, however, and although 3% of the population still practise open defecation, many among the poorest sections of the population have access to substandard services.

Further research would be needed to analyse in greater depth how socio-economic disparities are reflected in the level of sanitation services accessed by the population. Information gaps prevented greater insights into the evolution of open defecation and its geographic and socio-economic patterns.

3. Driving factors

3.1. Success factors

a) Socio-economic and housing pressures

“This commercial hub place is driving what the Assembly should do,” stressed the head of KMA Waste Management Department, thus summarising how Kumasi’s economic competitiveness and ongoing development depend on authorities’ ability to cater for the needs of a vibrant trading centre. The city comprises a sizeable floating population of traders, transient workers, and migrants who need access to proper sanitation services and are often willing to pay for them.

This context has pushed authorities to improve the level of services provided in public toilets. The focus on public toilets was reinforced by the many failed attempts to promote household toilets because of a range of significant housing constraints (see Box 1).

Box 1: the housing context

70% of Kumasi’s population lives in rental properties and in the city centre, mostly in multi-storey or compound houses accommodating five to 20 families. In such buildings, residents relied on pan latrines until this technology was banned in the 1990s. They now mostly use public toilets. One or two toilets may be available, shared by all families or exclusively used by the landlord.

Landlords may have parcelled out the property by dwelling or room to family members to take over as landlords. Thus a single building may now include properties owned and rented out by a number of landlords, the majority of whom are most likely not living on the premises. Individual households have no recourse to persuade off-site landlords, who do not have any incentive to invest to improve sanitation facilities for their tenants.¹¹

b) Political and policy enabling factors

Over the years, a political consensus has been built around sanitation. The credible plans and strong arguments brought forward by the Waste Management Department and the Public Health Department, the support from Chief Executive Officers and the still-powerful influence of the traditional authorities have been instrumental. Highly cooperative in helping keep the city clean to avert disease outbreaks, the traditional

authorities seek to maintain the reputation of the Ashanti kingdom, where traditional social norms have historically defined positive cleanliness and hygiene behaviours.^g

Political will to improve solid waste management at national level, manifested notably through the Sanitation Improvement Programme, has been pivotal to the improvements made on these services. Stimulating private sector participation and rapidly leading to successful results tangible for all, the Sanitation Improvement Programme has yielded evidence for KMA to allocate greater resources and implement a strategy to achieve full cost-recovery operations.^h

The main policy catalyst of the progress achieved in the past decade is the national Public Private Partnership Policy embedded in the Sanitation Policy (1999). This policy establishes six guiding principles: increasing value for money; transferring risks to the private sector; ensuring end users' ability to pay; promoting local operators and technologies; safeguarding the public; and conforming to national laws. Public toilet franchising had already been piloted in 1989, and expanded after 1992. Yet, by giving the private sector a larger role (design, construction, and operation and maintenance) the PPP policy environment accelerated the increase in franchising of the toilets.¹

By enacting this policy, KMA tapped into the potential of the private sector, which led to marked improvement in several segments of the sanitation chain of services, and, notably, in management of public toilets; transport of faecal sludge; waste collection; and landfill operations. The partnerships led to improvements because private service providers operated in a competitive market, had economic incentives to perform, and faced regulatory pressure to comply with the law.ⁱ They have gradually formed associations to ensure more balanced power relationships with KMA, and both the long and short routes of accountability (i.e. oversight from public authorities, and 'client power') are relatively effective.^j

c) Strong capacities

Much of Kumasi's strength as a sanitation pioneer in Ghana stems from the strength of its technical capacity. Since its creation during the Kumasi Strategic Sanitation Programme, the Waste Management Department has been successively headed by Luckman Salifou and Anthony Mensah, two highly competent and inspired sanitation

^g These norms and the traditional power backing them up still influence behaviours. Informants concurred that people's compliance with sanitation-related laws is often less the result of a relatively ineffective regulatory pressure than the expression of a fear of being ashamed when publically summoned in court for such deeds.

^h These operations presumably still depend on locally generated resources.

ⁱ For instance, licenses delivered by KMA can be revoked for illegal dumping. Likewise, the contract between KMA and each public toilet operator requires the latter to meet minimum service standards.

^j For instance, the Environmental Health Department has developed checklists to facilitate the oversight of public toilets operations. Environmental health officers are satisfactorily fulfilling their oversight function, leading to good compliance by public toilet operators. Private operators (whether public toilet operators or vacuum tank operators) are also aware that the quality of their service (e.g. hygiene, responsiveness, tariff) influences customer loyalty.

champions. Their strong leadership favoured the emergence of a multidisciplinary team comprising community development officers, engineers, environmental health technologists, a shared vision within the team, continuity in the strategy, and good coordination with the Environmental Health Department.^k

The solid momentum created by the Kumasi Strategic Sanitation Programme and sustained by these leaders has kept Kumasi on the radar of development partners, whose ambitious partnerships with KMA strongly contributed to the progress achieved in the city in the past two decades (see section 3.4.). The presence of good universities locally, and notably Kwame Nkrumah University of Science and Technology (KNUST), has helped form a team of well trained engineers, regularly strengthened with graduate and post-graduate interns whose research and development support contribute to institutional learning and to the sharing of local experiences with national and international audiences.

3.2. Hindrances

a) Political hindrances

The political consensus around sanitation in Kumasi has not led to prioritised investments in sanitation services. Budgetary allocations by KMA and the central Government to sanitation programmes have not increased much, compared with funds invested in solid waste management. To expand service coverage, to ensure corresponding increases in capacity (e.g. purchase of new vehicles or equipment), or even to sustain earlier gains (maintenance of facilities and equipment, ongoing awareness raising and demand creation), over-reliance on existing projects ensues. There is little political will to support the national vision promoting a shift from public to household toilets, and the progress made at this level can be described as the mere “bits and pieces brought by NGO-facilitated projects”, as a local expert noted. Sanitation champions are rare among Ghanaian politicians, and to gain the buy-in of politicians requires Waste Management Department officials capable of presenting strong arguments and a credible plan with authority.

b) Institutional bottlenecks

The level of compliance of certain groups of sanitation service providers, including vacuum tanker operators, waste haulers or public toilet managers, is exemplary. However, law enforcement is very weak in other critical areas such as manual pit emptying, payment for sewerage services (over 40% default), or construction of household toilets (a weakly enforced legal obligation). This weakness is partly explained by the multiple constraints posed by a housing context, which has been a huge obstacle for the sector (see Box 1). But it also results from the bureaucracy and red tape, rendering the prosecution of individuals a desperately long and expensive process. In

^k There is, however, much scope to strengthen synergies between the Social Welfare, Waste Management, Environmental Health, Works, and Planning departments.

2015, a court was established in Kumasi to address sanitation issues exclusively, but the overall process remains prohibitively long, because each case has to reach the criminal court first before it is channelled to this sanitation court. The penalties are not an effective deterrent because in practice they rarely exceed 10% of their official level.

Weak enforcement of sanitation-related municipal by-laws is also a capacity issue – without an effective lower tier of government, environmental health officers and hygiene education officers are overburdened and under-resourced. To assist them, there is a need to organise communities and nurture local champions so citizens can be mobilised for action and to generate peer pressure.

Last, enforcement approaches rarely work well without complementary incentive mechanisms. Lack of financial support from KMA and the central Government for construction of household toilets has led most landlords to disregard such requirements. The recent initiative launched by KMA, WSUP and HFC tries to provide a response to this chronic problem.

c) Monitoring

Robust and functional data collection and monitoring systems are lacking. Without up-to-date information on the nature, coverage and functionality of sanitation services, it is difficult to present a strong case for increased allocation of resources to decision-makers, who generally see limited value in monitoring efforts beyond particular emergency contexts (e.g. epidemic prevention and control). Monitoring and evaluation is a well documented bottleneck in the sector, which the country has unsuccessfully sought to address through various plans.¹

3.3. The influence of city sanitation planning

A senior expert shared the following: “People in Ghana do not put a strong emphasis on formal planning, which they sometimes regard as quite disconnected from the reality. What drives the whole process are the people, individuals who fully own a plan which is merely the formal by-product of a shared vision.”

This notion resonates with observations made on the Strategic Sanitation Plan developed under the Kumasi Strategic Sanitation Programme. This plan is regarded as a cornerstone by many, because its development has enabled the emergence of a shared vision on sustainable service delivery, combining plans for expansion of services and plans to progressively mobilise the resources and build the necessary capacities. Anthony Mensah, Waste Management Director of the Accra Metropolitan Assembly, who actively participated in this planning process, stressed that much of the value and influence of this document stemmed from the collective learning-by-doing process out of which it emerged. More than the plan itself, what seems to matter most is the quality of the process that leads to the development of a shared vision, formalised as a plan, and the extent to which stakeholders, and notably city officials, engage in this process.

The Metropolitan Environmental Sanitation Strategy and Action Plan (MESSAP) 2008–15 provides the overarching action plan for the delivery of sanitation services. The

forthcoming iteration of the planning process is expected to foster greater participation through an engagement of stakeholders at electoral area level (as opposed to town council level previously), and by the development of annual action plans enabling a more consistent sequencing of activities. The MESSAP has drawn the attention of development agencies because it is approved by the General Assembly, frames relationships with partners, and provides accountability mechanisms in the form of bi-annual meetings held at the town hall by KMA to account to the citizens. The discussions at the Planning Department suggest that only a small fraction of the activities planned under the seven-year MESSAP ever got implemented. Because of a lack of funding for sanitation from KMA, MESSAP has not been a significant driver for sanitation in the past decade.

3.4. The contribution of development partners

As noted above, much of the improvement in sanitation services resulted from strong partnerships forged between KMA and development agencies. A number of donors, multilateral and bilateral agencies, local and international NGOs, twinned cities and universities, among others, have thus contributed to KMA's efforts. They include UNDP, the World Bank, the UK's DFID, Agence Française de Développement, USAID, Bill & Melinda Gates Foundation, VNG,^l WSUP, WEDC, and Cranfield University. Collectively, they supported Kumasi in a number of ways:

- . Financially: by funding programmes, absorbing the cost of expensive infrastructure and supporting capacity development (e.g. health education unit, learning centre). However, this has not led to increased funding from municipal authorities – with the exception of solid waste management – resulting in a high degree of aid dependency.
- . Technically: by supporting analysis, planning, and fostering innovation (technological, institutional, financial, etc.)
- . Governance: by promoting greater transparency and accountability, notably by engaging technical staff, strengthening their skills, and establishing a new working culture and habits within and across departments.

Informants emphasised the relevance of capacity building programmes directed towards high-potential administrative staff and bureaucrats, who can be trained and mentored to become WASH champions, and who developed the self-assurance needed to influence politicians. Champions must be supported among technical staff from government departments, who can carry out the vision in the long run, as compared to politicians, who tend to come and go and who have less 'flesh in the game'.^m NGOs are particularly

^l VNG International is the International Cooperation Agency of the Association of Netherlands Municipalities.

^m The Local Government Service Secretariat is pushing for a policy that limits the terms to four years of officials in Waste Management Departments, including directors and heads. Such a policy would have implications in terms of continuity and institutional memory within departments.

well-placed to support this capacity building process by engaging officials in activities on the ground and exposing them to new ideas and audiences.

Increasingly development agencies are trying to trigger some emulation among cities through contests, challenges and other competitions, which also stimulate champions. Here, key informants stress the need to address seriously the ‘all for some vs. some for all’ dilemma. Spreading too thinly across too many municipalities can yield low impact and frustration. By contrast, applying more significant resources to one or two cities through comprehensive interventions on services and institutional reform can result in highly significant impact and the creation of model cities that may be difficult to replicate.

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Annexes

1. Key informants

Name	Designation
Issaka Balima Musah	WSUP, Country Programme Manager, Ghana
Anthony Mensah	Head of Waste Management Department, Accra Municipal Assembly
Nana Yaw Wiredu Chairperson Environment and Sanitation Sub Committee (Ahinsan Electoral Area); Morrision Djugana (Fante New Town Electoral Area); Edith Amamu (Government Appointee-Ayigya Electoral Area)	Hon Assembly members
Lois (administrator – gender focal person and sanitation-related issues), Charles Akwesi Aboagye (deputy administrator), Alhaji Shamsu (Director)	Sub Metro Administrators
Gorkemiah; Joseph Yaw Donkor	Waste Management Department: Head of department, deputy director, and R&D officer
Don Awantumgo	Head of department, Environment Health Department
Eric Gyasi, Joseph Amankwaah,	Officers, Environment Health Department
Joshua Tetteh Mortey	Development Planning officer, Planning Department
Dickson Sapon	Deputy Head of Community Development, Community Development Department
Mrs Rosemary Ninkaabs (secretary), Youssef Lewis Dechie (patron), Bernard Brempong (organiser), Owusu Takwy (chairman), Omar Mussah (member) , El Hadj Baba Musah (member)	Public Toilet Managers, members of their recently formed professional association
Mohammed Ibrahim; Yaw Sarfo; Alhassan Abubakari	Vacuum truck operators
Abou Souleymane,	Manager, Environmental Engineering Ltd. Contractor
Kufi Thomson	Assistant manager, Environmental Engineering Ltd. Contractor
Charlotte Asabea	Coordinator, Health Education Promotion Unit
Alexander Nimako Serbeh	Health educator and promoter, Health Education Promotion Unit
Augustina Kyerewaa-Appiha	Health educator and school health, Health Education Promotion Unit

2. Participants to the validation mini-workshop (15 April 2016)

Name	Designation
Alex Nimako	Health Education
Rosemary Ninkaabs	B.O.T Operator
Charlotte Asabea Djan	Health Education
Augustine Kyerewa Appiah	Health Education
Eric Gyasi	ESHD, KMA
David Ofori	Deputy Metro Engineer
Lois Ohene-Ayisi	ADM
John Y. Donkor	KMA-WMD
Justin Tetteh-Nortey	KMA-Planning
Don Awantumgo	MEHO
Sarpong Dickson Kwadwo	Community Development
Justice Acheampong	Health Learning Material Centre

3. Usage levels for different sanitation facilities in Kumasi¹

Type of sanitation system	KMA, 2008 (%)	Census, 2010 (%)	Definition for Census
Private WC	33	40	WC is a system flushed by water
Private pit latrine	10	11	
Private improved latrine	Not included	7	A latrine which includes a vent pipe
Bucket latrine	12	<1	Pan or bucket which is removed for the disposal of waste
Public toilet	38	39	A public toilet is where members of the household use a communal or public facility
Other	Not included	<1	Any other technology which is not covered in the above criteria
No facilities	6	3	People are practicing open defecation
<i>Sources of data</i>	<i>Mazeau et al., 2014</i>	<i>GSS, 2013</i>	<i>GSS, 2015</i>

4. Kumasi Excreta Flow Diagram¹

