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Social effects of poor sanitation and waste management on poor urban communities: a neighborhood-specific study of Sabon Zongo, Accra

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This paper provides a neighborhood-specific study of the social effects of poor sanitation in a poor neighborhood in a developing country city, Accra. It examines the challenges of rapid urbanization with respect to sanitation and waste management, and the burdens placed on poor urban residents in Sabon Zongo, a poor community in Accra. Like many poor communities in Accra and other large Ghanaian cities, residents of Sabon Zongo unable to queue and pay for sanitation services tend to package their liquid and solid waste in plastic bags and dump them indiscriminately within the community. The paper argues that the inability of city authorities to deal with sanitation and waste management in the poor urban community of Sabon Zongo go beyond the much discussed issue of health. This is because the inadequacy of sanitation and waste management in this particular poor urban settlement also has social implications. The paper concludes that while slums and poor urban communities may exhibit certain similar characteristics, they are not homogenous. Neighborhood-specific research such as the present study on Sabon Zongo offers opportunities for analyzing and understanding the internal dynamics, and the key stakeholders at the community level – critical conditions for tapping into the energies of residents toward addressing the challenges of sanitation and waste management in poor urban communities in Accra.

Keywords: poor sanitation; waste management; Accra; Ghana

Introduction

A key challenge facing many countries in the developing world undergoing rapid urbanization is the issue of sanitation and waste management (Briscoe 1996, Potter and Lloyd-Evans 1998, Chaplin 1999, Songsore 2003a). In many of these developing countries' cities, rapid urban growth has far outpaced metropolitan and municipal authorities' capacity to provide basic services including adequate sanitation. This situation has been further compounded by weak local government structures and the lack of transparency and accountability in city governance (Chaplin 1999, Hardoy *et al*. 2005). The scene in most places in these cities, especially poor neighborhoods as described in various studies, is one of overflowing garbage containers (even if there is one) in which animals and residents rummage through, indiscriminate waste disposal, overcrowded toilet facilities, choked drains, and a general sense of unkempt environment.

While there have been extensive discussions about the health and environmental implications of poor sanitation and waste management, relatively little has been said about the social implications of poor urban living environment. This paper provides a neighborhood-specific study of the social effects of poor sanitation and waste management on residents

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in Sabon Zongo, a slum community in Accra, Ghana. It analyzes the social consequences of poor sanitary conditions in Sabon Zongo, and not the often-highlighted health and environmental consequences. Nevertheless, the health and environmental consequences of poor sanitation are acknowledged as they have both direct and indirect links to the social consequences.

Ghana, like many countries in sub-Saharan Africa, is undergoing rapid urbanization (Konadu-Agyemang 2001a, 2001b, Songsore 2003b, Yeboah 2003, Yankson 2006, Owusu 2005, 2008a). The level of urbanization rose from 7.8% in 1921 to about 23% in 1960, then to 32% in 1984. It reached about 44% in 2000 (GSS 2005), and was estimated by UNFPA to be 51% in 2009 (UNFPA 2009). However, there is a skewed distribution of the urban population with preference for the large towns and cities of Accra, Kumasi, Sekondi-Takoradi and Tamale (ISSER 2007, Owusu 2005, 2008a, 2008b). These four major centers in Ghana in 2000 accounted for over 44% of the total urban population though there were over 350 urban centers in the country (Owusu 2005). However, as of 2000, the two largest cities of Accra and Kumasi accounted for approximately 34% of the total urban population.

Like many cities in Sub-Saharan Africa (and indeed Ghana), rapid urban change in Ghana's national capital and largest city, Accra, has outpaced the capacity of central and local governments to address urban environmental challenges in a satisfactory manner, especially in the context of globalization, marketization, structural adjustment and the consequent roll-back of the developmental state (Songsore 2003a, 2003b). As such, in many Ghanaian cities, particularly Accra, this rapid pace of urbanization is accompanied by increasing density and the emergence of slums, or in broad terms, communities largely under-served with basic infrastructure and services (Konadu-Agyemang 2001a, Ayee and Crook 2003, Yeboah 2003, Yankson 2006, ISSER 2007, 2008).

A key challenge facing the city of Accra is sanitation[1] and waste management. The Medium-Term Development Plan (MTDP), 2006–2009, of Accra's local government, namely the Accra Metropolitan Assembly (AMA), has described the current state of sanitation in Accra as very unsatisfactory and characterized by choked drains, indiscriminate waste disposal and uncollected refuse in central waste containers (AMA 2006).[2] This situation is even worse in the poor urban neighborhoods of Accra (such as Sabon Zongo), characterized by overcrowding and inadequate sanitary facilities. More importantly, the social consequences of poor urban living environment have been largely overlooked. This neighborhood-specific case study of Sabon Zongo provides an attempt to fill this knowledge gap by analyzing the social implications of poor urban sanitation and waste management in a poor urban community in a developing country city setting.

Study background: sanitation in urban areas of low-income countries

It is argued that although all constituents of the environment ultimately exert some influence on human health and well-being, the environment which exerts the greatest and most immediate influence on people's well-being is the intimate environment of their home and neighborhood (Songsore and McGranahan 1993). While this is often conceptualized in health terms, it can be argued that this goes beyond health to encapsulate other aspects of human well-being. This is because the quality of housing and community spaces affects not only physical health and safety, but also emotional and social well-being (Bartlett 1999).

Conceptual frameworks for understanding the challenges of sanitation and health in developing countries have been captured under two perspectives. These are the urban environmental transition model (McGranahan and Songsore 1994, McGranahan *et al*. 1996,

2001, Songsore 2004) and the comparison of the urban sanitation development experiences of the West and developing countries (Chaplin 1999).

The urban environmental transition model postulates that the nature of environmental problems and, therefore, sanitation challenges, in cities changes with levels of economic development. It argues that in cities of poor countries, sanitation-health threatening challenges are found in the immediate environs of homes, neighborhoods and workplaces. These challenges include inadequate water supply and sanitation facilities, poor and overcrowded housing, smoky kitchens, insect infestation, contaminated food, piles of uncollected garbage and poor drainage (McGranahan and Songsore 1994, Songsore 2004).

However, as countries develop and move into the middle-income category, neighborhood and home challenges reduce in importance, and the emergence of city-wide challenges such as ambient air pollution and river pollution predominate. At an advanced stage of development (high-income status), cities in these countries are able to address both neighborhood/home and city-wide environmental changes. Although cities in the wealthy nations use far more resources, they are also able to use part of the wealth to avoid personal exposure to unpleasant and hazardous pollutants at both the neighborhood/home and city-wide levels.

Using India as a case study, Chaplin (1999) provides an explanatory framework regarding the persistence of large sections of the urban population in developing countries living in unsanitary conditions and the lack of action by governments. She argues that in many ways the urban environmental conditions in India and other developing countries are comparable to those of nineteenth century Great Britain and Europe. However, Chaplin (1999) notes that the conditions that facilitated the development of sanitary laws/regulations, governance structures and infrastructure in Great Britain and elsewhere in the developed world, which allowed the resolution of neighborhood/home and city-wide unsanitary conditions, seem to be absent in the developing world. These conditions include little middle class pressure for sanitary reform; access to modern medicine and engineering which tend to lower risks faced by all sections of society (including the poor) from sanitation-related diseases; and an absence of "threat from below" (particularly the lack of pressure from organized trade unions).

Using the three interrelated factors of little middle class pressure, the presence of modern medicine and the lack of threat from below, Chaplin (1999) contrasts the urban sanitary development path of Great Britain and Europe vis-à-vis India, and by extension developing countries. First, she argues that due to the nature of the state, the middle class in India, and by extension other developing countries, has been able to monopolize the limited urban services such as sanitation provided by the state. This situation is further reinforced by the flight of the middle class to new suburbs which often have self-contained apartments and segregated living.

A second point to note is the absence of organized labor to pressure governments for sanitary reform. This has not been possible due to the fact that on the one hand trade unions represent predominantly white-collar professional workers whose numbers have shrunk in recent years due to structural adjustments and public sector reforms. On the other hand, the overwhelming proportion of workers who are in the informal sector are not organized and therefore unable to pursue collective actions – so they are excluded from resources the state provides for the provision and distribution of basic services. Third, the very developments in modern medicine and civil engineering which contributed to sanitation and public health improvement in nineteenth-century Britain have enabled the middle class to ignore environmental problems and their attendant challenges. While in Britain, the middle class could not isolate themselves from communicable diseases such as cholera, diarrhea, etc., modern

medicines tend to localize the spread of these diseases. As such, it was the spread of diseases in urban nineteenth century Britain that killed the poor as well as the middle and upper class population, which helped to galvanize political collective action from the middle and upper classes. This situation is virtually absent in developing countries. The consequence has been a lack of interest in sanitary reform and the exclusion of large sections of society from access to these urban services.

It can be argued that viewed side by side, the two frameworks (the urban environmental transition model and the comparative urban sanitation experiences of developing and developed countries) provide better perspectives for understanding the sanitation challenges in developing world cities. This is because while the urban environmental transition model can be described as projecting a linear development path, the comparative model explains how the sanitation characteristics of the three stages (low, middle and high-income cities under the urban environmental transition model) can exist at the same time, and in the same city in the same country. As Chaplin (1999) argues, this is because the middle and upper classes' monopoly of urban services provided by the state, the presence of modern medicine and the absence of a threat from below ensure that some in developing countries' cities enjoy the same sanitary facilities as residents in cities of the developed world. At the same time, a large section of the urban population in cities of the developing world live in unsanitary conditions and overcrowded environs – a situation which Songsore (2003b) describes as defying any planning norm or regulation.

While these models provide a useful basis for understanding the sanitation situation in many cities of the developing world, they are not explicit on the social dimensions of sanitation in these countries. Nevertheless, it can be implicitly inferred from both Chaplin's and the urban environmental transition model's propositions about the possible social implications of poor sanitation. This is because environmental health, socio-economic and political underpins of both propositions can have social implications as well.

Research methodology

The analysis in this paper is part of a neighborhood-specific study of a situational analysis of selected poor communities in Accra and Sekondi-Takoradi.[3] According to Jarvis *et al*. (2001, p. 167), a key benefit of a neighborhood-specific approach is the ability to ensure from geographically-specific secondary data as well as from physical observations that households and other respondents interviewed share equivalent proximity to a transport infrastructure, environmental amenity, "status" and community profile. They add that such an approach provides a convenient means of identifying place of residence of respondents as well as a level playing field as a background to a more detailed observation of intra-household discourse and practice.

As part of a situational analysis study of selected slum communities in Accra and Sekondi-Takoradi, Sabon Zongo was selected on the basis of its migrant status, demographic composition, age and location of the settlement. Overall, data for analysis in the study were generated from four methods, namely secondary sources, focus group discussions (FGDs), interviews (key informants/local government representatives and experts) and transect walks. The secondary source or desktop study generated information on the general Ghanaian urban environment, key stakeholders and their influence on urban development, and a city-level database on poverty and slums.

Four FGDs were conducted in Sabon Zongo – one each for the youth (between the ages of 18 and 38 years, and single), adult males, adult females, and representatives of non-governmental organizations (NGOs) and community-based organizations (CBOs) operating

in the community. Each of the FGDs was made up of between 8 and 10 respondents. The aim of the FGDs was to provide information on community history and changes over time, community infrastructure/services and opportunities, social structures and local government activities in the community. To triangulate or validate responses obtained from the field, interviews were also conducted with nine key informants (mainly traditional and leaders of the community), a local government representative (Assembly Member) of Sabon Zongo and 12 experts (mainly academics, senior officers of NGOs and senior administrative/planning officers of the metropolitan local government authority). The experts' interviews were mainly about the broader Ghanaian urban environment and city-wide (Accra) issues, but which have direct and indirect implications for the development of urban neighborhoods. In addition, the interviews were aided by a transect walk exercise conducted in Sabon Zongo.

Growth of Accra and the sanitation challenge

Accra, the national capital, has grown significantly over time (see Table 1). Even though Table 1 shows that there is a decline in the growth rate of Accra, the city continues to grow both in terms of population and area. More importantly, many urbanists have argued that the official population and area extent of Accra is greatly underestimated (Konadu-Agyemang 2001a, Grant and Yankson 2003, Crook and Ayee 2006, ISSER 2007, Owusu 2008b). This is because there are large sections of the fringes of the metropolis (such as Mallam, Gbawe, Taifa, Achimota, Ofankor, Macarthy Hill, Madina, Hatso, etc.) that are well incorporated into the city but are not officially defined as part of the city. Recent growth in the population of the metropolis has largely occurred in these areas.

Table 1 indicates that the population of Accra grew from just under 340,000 in 1960 to over 1.6 million in 2000 within a period of four decades. The population of Accra in 2000 represented about 20% of the total national urban population – thus 1 in 5 of the urban residents live in the city. Accra's population was estimated to be almost 2 million in 2007. However, the census population figures of Accra as shown in Table 1 do not include the daily influx of people into the city, which is usually described as the floating population. It is estimated that Accra accommodates between 2.5 million to 3 million people daily who are not captured in the census data (ISSER 2007).

In addition, population density levels have increased over time from 36 persons per hectare in 1960 to over 140 persons per hectare in 2007 (see Table 1). However, densities exceeding 250 persons/ha occurred mostly in the dominant immigrant and indigenous depressed areas of Accra, while density ranges between 17–40 persons/ha can be found in the high-income areas (AMA 2006). In other words, even though the average density of the city of Accra has significantly increased, it is masked even more significantly by differentials among poor neighborhoods such as Nima, Sabon Zongo, Avenor, James Town, La, Accra New Town, etc. With limited income which cannot guarantee them formal housing,

Table 1. Demographic characteristics of Accra, 1960–2007.

	1960	1970	1984	2000	2006*	2007*
Population	338,396	636,667	969,195	1,658,937	1,915,983	1,960,462
Pop. growth rate	–	6.32%	7.51%	4.3%	4.3%	4.3%
Pop. density/ha	36.0	50.8	69.3	118.6	137.4	140.6

Note:* Projected population figure.
Source: 1960–2000 National Population Census Reports (AMA 2006).

many residents of Accra seeking a foothold in the city end up in these already congested and crowded urban areas.

According to AMA (2006) and Ayee and Crook (2003), sanitation in Accra can best be described as unsatisfactory, and is characterized by choked drains, indiscriminate waste disposal and overflowing central waste containers, especially in poor neighborhoods of the city. This situation is attributable to a number of factors, including poor conceptualization of sanitation; lack of adequate sanitary facilities; ignorance and irresponsibility of individuals, households and communities; lack of community action; and the rapid springing up of unauthorized temporary structures. Other factors include an increasing number of squatters; indiscriminate street hawking; lack of regular budgetary allocation for sanitation; and the virtual absence of fee-based service provision in low-income areas (AMA 2006). As a result of these challenges, a substantial proportion of the waste generated in Accra is uncollected and ends up in drainage systems, water bodies and open spaces (Ayee and Crook 2003). It is estimated that Accra generates between 1500–1800 tons of waste per day. On average, 1200 tons of the waste generated in the city is collected daily (AMA 2006), leaving between 300–600 tons of uncollected waste.

In an attempt to effectively manage waste, Accra has been divided into six collection zones by AMA. The zones have been awarded to private waste collection companies for fees charged according to specific contractual agreements between these companies and the metropolitan authority. Two types of waste collection systems operate in the city, namely the central container system and the door-to-door waste collection system. The central container system of waste collection is used in the low-income areas of the city. Under this system, containers are placed at designated points for households to get rid of their waste and no fees are charged for this service. Door-to-door waste collection is prominent in affluent areas of Accra. In this case, private companies engaged in door-to-door service charge households on monthly or fortnightly basis for scheduled waste collection. Within the city of Accra, it has been recognized that approximately 20% of communities/neighborhoods in the city are covered by door-to-door waste collection whilst the remaining 80% are covered by communal collection through the skip container system (AMA 2006).

Table 2 indicates the type of sanitation and water facilities used by households as revealed by the 2000 Population and Housing Census.[4] The Table shows that only 20% of households used a water closet (WC), considered as the most adequate toilet facility; only about 21% had an adequate waste disposal system of collection; only 13% disposed of their liquid waste through a sewerage system, and about 44% had pipe-borne water inside their homes. For an overwhelming proportion of residents, waste is disposed of through dumping in unapproved and unsanitary circumstances. It must, however, be stressed that these average figures for the city of Accra are even lower when compared to those from slum communities such as Sabon Zongo.

The problem of sanitation and others falls under the responsibility of the metropolitan local government, Accra Metropolitan Assembly (AMA). However, AMA, a decentralized local government unit, suffers from a half-hearted approach to decentralization in Ghana by the state. According to Konadu-Agyemang (2001a), central government's reluctance to fully decentralize power and resources to local governments has created a situation where the city administration has always been an extension of central government's political power. This situation has been reinforced by the twin scourges of mismanagement and corruption (Pellow 2002, Owusu 2008c). According to Yankson (2000, p. 98), urban local governments (including AMA) in Ghana have not made any significant impact on the provision of services, infrastructure and in the performance of the basic municipal functions.

Table 2. Accra: type of sanitation and water facilities used by households (%), 2000.

Toilet (%)		Solid waste disposal (%)		Liquid waste disposal (%)		Water (%)	
Water closet (WC)	23.2	Collected	20.8	Sewerage system	13.0	Pipe-borne (inside)	43.6
KVIP	11.9	Burned	6.9	Street/ outside	16.7	Pipe-borne (outside)	47.1
Pit latrine	6.1	Public dump	62.7	Gutter	53.1	Bore-hole	3.1
Bucket/pan	12. 7	Dump elsewhere	5.8	House compound	16.6	Tanker supply	4.6
Toilet in another house	9.3	Buried	3.1	Other	0.6	Well/dugout/ pond	0.2
Public toilet (WC, KVIP)	32.7	Other	0.7			Spring/ rainwater	1.0
No facilities	4.1					River/stream	0.1
Other	0.2					Other	0.3
Total	100.0	Total	100.0	Total	100.0	Total	100.0

Source: 2000 Population and Housing Census, Ghana Statistical Service (GSS).

Hence, the contribution of AMA to urban development and urban poverty reduction could at best be described as marginal.

Sabon Zongo and sanitation

Lying only 3 miles north of Accra's central business district (CBD), oral and written historical accounts reveal that Sabon Zongo (meaning "new stranger quarter") was established in 1910 by Mallam Bako, a local Hausa leader of northern Nigerian descent. Therefore, the original settlers were Muslim Hausa migrants from northern Nigeria, who were wrangling with other Muslim ethnic groups in downtown Accra (Pellow 2002, p. 1). Over the years, other migrants, particularly from northern Ghana, have joined these early settlers and their descendants. Many of the settlers have remained in the community, in part because they could not financially afford to move, and in part for reasons of social familiarity and comfort (Pellow 2002).

Today, Sabon Zongo is a complex and heterogeneous community with a dominant large migrant population from all parts of Ghana. Interestingly, as of 2000, Akans constitute the largest single ethnic group in Sabon Zongo, representing about 36.2% of the total population. This is followed by Mole-Dagbon (about 14.2%), Ga-Dangme (11.8%) and Ewe (11.8%). However, if the smaller ethnic groups from northern Ghana are also included, that is, Grusi (6.4%) Gurma (1.1%), Mande (1.3%) and other minority groups captured as "Other ethnicities" (14.3%) – to the Mole-Dagbon , then the proportion of ethnic groups from Northern Ghana would be just like the Akans. Nevertheless, the relatively high percentage of Akans in Sabon Zongo is very interesting given the fact that Sabon Zongo was initially largely inhabited by ethnic groups from Northern Ghana (Agyei-Mensah and Owusu 2009). The presence of all the four major ethnic groups (Akans, Mole-Dagbon, Ewe and Ga-Dangme) in Sabon Zongo is consistent with the changing national and city patterns of increasing ethnic diversity and more mixing of the ethnic groups (Agyei-Mensah and Owusu 2009). It has, however, remained predominantly a Muslim community with a few other religious groupings, evident in the presence of numerous mosques. Our field investigations (focus group

discussions and interviews) indicated that residents engage mostly in trading, while majority of the youth are unemployed.

Originally perceived as peripheral neighborhood of the built-up area of Accra, Sabon Zongo is now well situated within the built-up area of the city (see Figure 1). Sitting on an area of land of approximately 75 acres (about 30 hectares), Sabon Zongo now has a total population of about 18,616 (AMA 2006). This gives a density level of about 620 persons per hectare – a level that far exceeds the average for the city of Accra of about 141 persons per hectare. Although originally established with planned layouts (Pellow 2002), the locality currently has no proper layout and consequently developed haphazardly due to the inability of city authorities to enforce construction and building standards. In addition, streets within the community have been encroached upon due to the absence of space within residential compounds. Pellow (2002) argues strongly that the present state of infrastructure and services in Sabon Zongo is more due to government's neglect – a migrant neighborhood inhabited by poor residents who wield no political pressure. She notes that 40 years after much of Accra has enjoyed some level of infrastructural improvement, Sabon Zongo can be delineated by virtue of its infrastructural neglect. This view reinforces Chaplin's (1999) argument on why unsanitary conditions exist in many cities in developing countries.

Table 3 indicates the type of sanitation and water facilities used by households in Sabon Zongo in 2000. The overall picture that emerges from Table 3 is that in the absence of adequate sanitation facilities in homes there is heavy reliance on public facilities as well as the open disposal of waste. For example, only 14% of households used adequate toilet facilities (WC and KVIP) inside their homes; only 15% had a solid waste collection system; only about 8% disposed of liquid waste through a sewerage system; and about 42% had pipe-borne water insider their homes. The remainder of the households disposed of toilet and other waste by relying on the limited public or private commercial facilities (including even

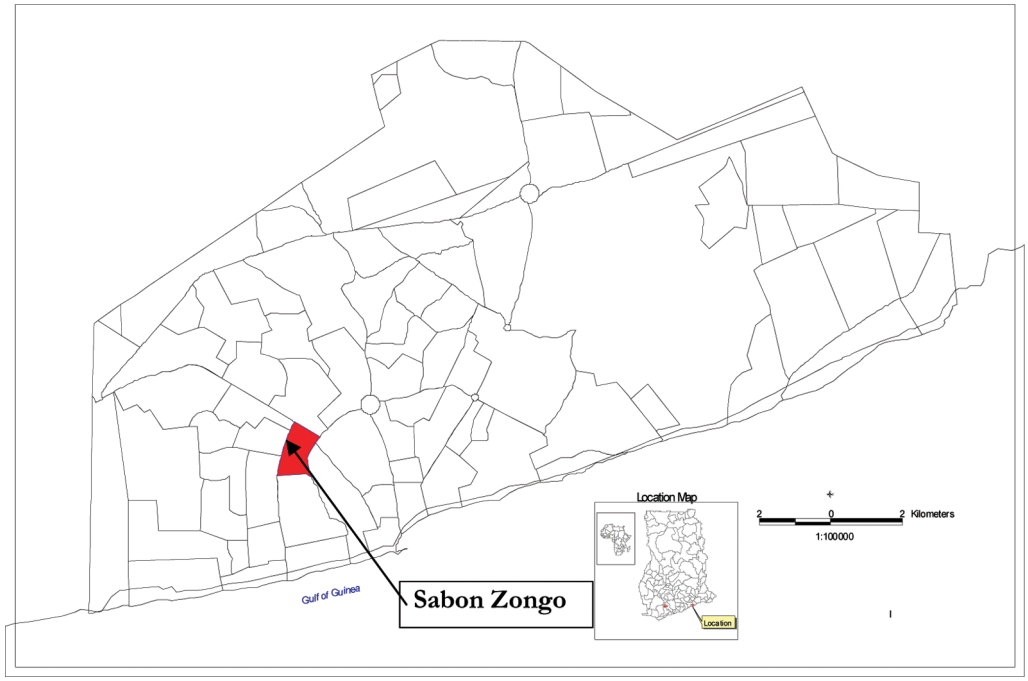

Figure 1. Residential map of Accra metropolis showing the location of Sabon Zongo.

Table 3. Sabon Zongo: type of sanitation and water facilities used by households (%), 2000.

Toilet (%)		Solid waste disposal (%)		Liquid waste disposal (%)		Water (%)	
Water closet (WC)	6.5	Collected	15.1	Sewerage system	8.4	Pipe-borne (inside)	41.8
KVIP	7.5	Burned	1.5	Street/outside	9.4	Pipe-borne (outside)	53.1
Pit latrine	1.9	Public dump	79.5	Gutter	79.6	Bore-hole	0.2
Bucket/Pan	6.2	Dump elsewhere	1.6	House compound	2.5	Tanker supply	0.8
Toilet in another house	7.0	Buried	2.1	Other	0.1	Well/dugout/ pond	3.1
Public toilet (WC, KVIP)	70.4	Other	0.2			Spring/ rainwater	0.9
No facilities	0.3					River/stream	0.0
Other	0.2					Other	0.1
Total	100.0	Total	100.0	Total	100.0	Total	100.0

Source: 2000 Population and Housing Census, Ghana Statistical Service (GSS).

bathrooms, as seen in Figure 2) in the community. For example, about 70% of households used public toilets compared to an average for the city of Accra of about 33%.

Field investigations and observations carried out between July and August 2008 and July 2009 revealed that the situation has barely changed. At present, Sabon Zongo has two main public toilets (one of which was under renovation at the time of our fieldwork) and six privately-owned public toilet facilities. It is estimated that the present toilet facilities in Sabon Zongo can be used by approximately 6,000 people, that is, only about one-third of the population (Ayibotele 2005). The severity of the toilet situation is reflected by the fact that residents not only pay relatively higher fees for use of the facilities, but they also have to queue to access it. Although AMA's by-laws indicate that all residential dwelling units should have toilet and bathroom facilities, these have largely been ignored. Due to pressure on residential accommodation, toilet and bathroom facilities within homes have been converted into living rooms, resulting in a heavy reliance on public facilities by the residents.

Figure 2. Privately-owned commercial public bathrooms. Source: Author's fieldwork (2009).

Figure 3. Overflowing central waste container. Source: Author's fieldwork (2009).

The central container system is used for solid waste collection in Sabon Zongo. However, there are only two collection points within the community. Even though this service is officially supposed to be free, residents or community members pay to dispose of their refuse. The cost of each refuse dump into these containers ranges between 5 Ghana pesewas and 50 Ghana pesewas (about 4 US cents) depending on the size of the refuse. The challenge is that the number of refuse containers at the central collection points is simply not enough when compared to the number of households living in the community, and even more critically, the containers are not picked up at regular intervals when full (see Figure 3). This causes rubbish to pile up in these areas as some people still continue to dump their refuse in the collection areas when the containers are full. Other households in the community also dump their refuse into drains, open spaces and available streams whenever the containers get full. The challenges confronting waste disposal in the community are captured by this quote from an adult woman FGD participant:

> In terms of sanitation, it is very poor. Everywhere you pass in this community you will find the drainage choked with rubbish. People dump their rubbish into the drains because they do not want to pay for the waste collection, and also for the fact that there is nowhere to disposal off refuse.

A key informant summarized the situation as follows:

> The community has two public rubbish containers placed at vantage points in the community to serve residents. [Although officially waste disposal is supposed to be free] residents pay a fee depending on the amount of waste to be disposed into the container. These monies collected are used to pay the waste truck drivers who come to pick the waste containers. The main challenge encountered with these rubbish bins is that when full, they are not readily picked up. For liquid waste, individuals have constructed small gutters in front of their houses where they throw their liquid waste into them. However, because the area has no drainage systems, these waters are left standing, leading to the breeding of mosquitoes. There are no channels for the waste water to flow through. [See Figure 4]

Our field investigations revealed that the onset of heavy rain downpours provides an opportunity for solid and liquid waste disposal in Sabon Zongo. Under such conditions, many households dump their collected wastes into gutters for them to be carried away by the run-

Figure 4. Open disposal of household liquid waste. Source: Author's fieldwork (2009).

offs and floods. However, households living at the downstream of run-offs and flood channels pay a heavy price by being inundated with waste, both solid and liquid. As an adult female FGD respondent noted: "We have complained bitterly and spoken against this practice but it still goes on when it rains. I think it would have stopped if we had enough waste containers here [Sabon Zongo]".

Therefore, the inability of city authorities to provide adequate sanitation facilities has resulted in private individuals/operators providing these facilities to residents for a fee. Many of the activities of these private commercial sanitation providers are unregulated. Hence, residents tend to pay more than is the case in other relatively well-off suburbs of the city of Accra.[5] Again, FGDs and interviews with community members and the Assembly Member provided several examples of evidence of private operators overtly blocking public projects in the community, particularly toilet and other sanitation facilities. A case in point is the UN-Habitat/WaterAid Ghana's Water for African Cities (WAC II) project in Sabon Zongo aimed at increasing access to sanitation facilities and services in the community. The project involves the demolition and construction of a new water-closet toilet facility, a solid waste holding bay and drains to improve the drainage system and enhance road access within the community. The project, which was on-going at the time of collecting field data for this study, had experienced several difficulties, including the demolition of a constructed wall, and private KVIP operators in the community dumping human excreta from their toilets into the tank of the new WC toilet which was under construction.[6]

Some residents of Sabon Zongo who are unable to queue and pay for even the poor sanitation services, tend to package their liquid and solid waste in plastic bags and dump them indiscriminately within the community. As Pellow (2002) noted, waste is not collected frequently, maybe once a week and more likely once every two weeks. For this reason, and perhaps due to inertia, many residents do not even bother to deposit refuse at the waste collection points. More importantly, in Sabon Zongo the sheer abundance of garbage has made it a "weapon" for silencing residents who raised their voice against the youths who engaged in social vices such as marijuana smoking. Such youths silence and intimidate their critics by collecting garbage and dumping it either in or in front of the homes of such critics. Residents called the act of receiving such garbage as "gifts". Community members who fall victim to this act have to contend with not only cleaning up, but also have to pay for the cost of disposal in addition to the garbage generated by their own households – a situation which imposes a severe burden on already financially-stressed poor households.

Social implications of poor garbage disposal and management

The effects of poor urban sanitary conditions and waste management on the well-being of city residents are often expressed in health and environmental terms. Of equal importance, which requires the attention of urbanists and other analysts of the urban environment, are the social consequences of poor sanitation. As earlier noted, we recognized the severe health and environmental consequences of poor sanitation, and their direct and indirect links to the social consequences. In other words, the analysis here does not trivialize the environmental and health consequences of poor sanitation and waste management, but rather places more emphasis on the social consequences.

For Sabon Zongo, the abundance of uncollected garbage and its use as a weapon raises questions about community social cohesion. Poor urban communities are noted for their strong social cohesion. This is achieved through social networks, a process which tends to assist the poor to weather the storms and challenges associated with urban life. Interviews with key informants, adult women and men FGDs conducted in Sabon Zongo revealed some disquiet between the older and younger generations. In particular, poor sanitation in the community is partly blamed on the lack of discipline among youths with regard to their non-participation in the communal cleaning exercise (something the older people undertook frequently when they were young) and their indiscriminate dumping of refuse. This view is captured in this quote from an adult woman FGD participant:

> Some youths in the community dump rubbish anywhere they like when nobody is watching them. They collect the rubbish from homes for a fee but dump them at unauthorized places because they do not want to pay at the container site. So when they are caught, we allow the community members to beat them up.

Within the perception of the youths as undisciplined with regard to sanitation are the broader issues of violence and insecurity, and the contestation of open spaces at the neighborhood level. According to Bartlett (1999, p. 71), the quality of common space certainly influences social interaction. She adds that when people have reason to make frequent use of neighborhood space, the very level of activity can inhibit anti-social behavior. In the context of Sabon Zongo that common space seems to be a contested space between those youths perceived to be deviants and older members of the community, with implications for community social cohesion. Some older community members' challenge to these contested hijacked places attracts the bombardment of garbage.

Related to community social cohesion is the role of adults as promoters of good social values and the moral upbringing of young community members. Under the fear of possible retribution of being bombarded with garbage, adults watch as some youths openly smoke marijuana and engage in other social vices in the community. In this context, adults' role as guardians of the future generation of the community is greatly impeded. As we conducted an FGD for adult men in a school building at Sabon Zongo, we observed a group of youths at the other end of the school compound smoking marijuana. Participants of the FGD complained to us (researchers), telling of their disapproval of the practice, but they felt helpless about stopping the practice.

A further social consequence of poor sanitation and waste management is its effects on children. According to Bartlett (1999), poor living environments have particularly far-reaching consequences for children and adolescents as they are more vulnerable than adults to a range of environmental concerns and more likely to be affected in ways that have longer-term repercussions. Again, sanitation solutions that are workable for adults may be impractical for young children. As Bartlett (1999) noted, where resources are tight, shared

latrines may appear to be a reasonable alternative in urban communities, a great improvement over no provision at all. However, a latrine 50 meters away from home can present a significant problem for young children who have difficulties waiting (in terms of walking to the site or joining a queue) when they need to use a toilet. In addition, many public latrines, such as those present at Sabon Zongo, are frightening places; they are dark and smelly, and pit openings are designed for adults. As a participant at the adult women FGD noted: "The toilets have not improved. They have become worse. We have to queue to use the toilets even as early as 5am and because of the stench you need to change your clothes after visiting the place". Such toilet facilities are unlikely to be attractive to children.

It is widely acknowledged that clean and well kept neighborhoods are not only good for the health of children but also affords them opportunities for companionship, recreation and social learning (UNFPA 2007a, 2007b). In addition, the environment serves as the arena for cultural rules and norms that guide the activities and behaviors which are reinforced and reproduced through the repetition of those daily activities in which people participate (Pellow 2002). An important effect of this observation is that children's world view (Sabon Zongo) will be partly determined by what they observed in their community. This may partly account for some of the youths' undisciplined behavior towards littering and their lack of appreciation of good sanitary practices. As such, growing up within an environment of garbage all around and poor sanitary practices, the youths and young children of Sabon Zongo are unlikely to behave any differently from their older community members who litter the community. Reinforced by inadequate waste management by AMA, this situation is likely to perpetuate a vicious cycle of poor sanitation.

The poor state of sanitation and the physical living environment have implications for community characterization and stigmatization by "others". According to Owusu *et al*. (2008), the negative characterization of poor urban communities as a result of their poor infrastructure and physical environment is associated with stigmatization of the population and individuals living in such communities. According to some respondents, the stigmatization of the residents of Sabon Zongo contributes in part to the underdevelopment of the community. This is because it sometimes forms the basis for denying the community and its residents other vital services, which in turn reinforce the negative characterization of the community. As one key expert informant noted:[7]

> Sabon Zongo is a zongo community, which many people describe as an unhygienic place. However, it is government and city authorities which have neglected the community … Nobody speaks evil though of the other places, but Sabon Zongo, right, have its people perceived as bad. I think Sabon Zongo has really been marginalized by the municipality. For instance, in the mid-1990s when there was expansion of telephone services across the city [Accra], I talk to the P&T [the then state-owned post and telecommunication corporation] about the possibility of expanding its service to Sabon Zongo. The response I got was that the community is too congested and there are no roads and proper layouts. They [P&T] added that if the roads are paved, they [P&T] could erect their poles and provide telephone service. One P&T worker told me that we [P&T] cannot put up the poles because the community lacks access roads. This is what is I call incident redress. If they have this, then we can do this. Because they do not have A, B, C, they do not get D, E and F.

Implications for slum and urban development

The current poor state of sanitation in Sabon Zongo is not an accident. It is the result of the rapid pace of urbanization and its attendant challenges. This situation emanates largely from weak local and central government response to the process of urbanization in Ghana, resulting in the underperformance of the Ghanaian urban economy. However, the poor perfor-

mance of Ghanaian towns and cities has not preserved poor urban neighborhoods and indeed urban areas from continued rural exodus pressures (ISSER 2007). This is because the power of the attraction of Ghanaian cities is not seriously impaired, as they are still regarded by migrants and residents as centers with brighter prospects for individuals and group well-being.

It must be stressed that despite the rapid pace of urbanization and its emerging challenges, and on the eve of becoming an urbanized society, Ghana does not possess an Urban Development Strategy (UDS) or an urban development policy (UDP). The lack or absence of a UDS or UDP has undermined the policy coherence of government ministries and agencies involved in addressing urban problems and reducing urban poverty (ISSER 2007, Owusu 2008a, 2008b). In addition, urban development strategies as articulated in Ghana's development policy frameworks such as the Growth and Poverty Reduction Strategy (GPRS II), does not provide a comprehensive urban development focus but a limited focus on slum upgrading and housing. What can be inferred here is that middle class and civil society pressures for comprehensive urban development in Ghana (including sanitary reforms) have been very limited (see Chaplin 1999).

The result of inadequate responses by central and local governments in terms of policy and action on urbanization and the growth of Ghanaian cities, especially Accra, is the poor sanitation present in poor neighborhoods such as Sabon Zongo. The inability of city authorities to provide adequate sanitation facilities as well as to regulate private operators has resulted in a situation where poor urban residents in Sabon Zongo have to access these services at a relatively higher cost. Such individuals or private operators even act to block projects regarded as likely to reduce their influence on the community. More importantly, as argued in this paper, the consequences of poor sanitation go beyond the much-discussed issue of health. Poor sanitation in poor neighborhoods such as Sabon Zongo can, among other things, have social implications (i.e. a sense of stigma, frustration, resentments, etc) as illustrated by the waste-as-weapons account. In here lie issues of community social cohesion and adults' desire to promote social values and the upright moral upbringing of young community members.

To conclude, it can be argued that while slums and poor urban communities may exhibit certain similar characteristics, they are not homogenous. As such neighborhood-specific research such as the present study on Sabon Zongo offers opportunities for analyzing the internal dynamics as well as the key stakeholders in these communities. Understanding the internal dynamics and key stakeholders at the urban community level is critical to any solutions to address the challenges of sanitation and waste management in poor urban communities in Accra. For example, the energies of the youth in Sabon Zongo, if properly mobilized through community activism, can be used to address the challenges of poor sanitation in the community, rather than using waste as an expression of their frustrations and social tension.

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Notes

1. "Sanitation" here is used broadly to refer to the disposal of sewerage and other liquid waste as well as solid waste.
2. Accra Metropolitan Assembly (AMA), the metropolitan local government, is charged under various legal provisions under Ghana's Local Government Act of 1993 (Act 462) with the overall development of Accra, including sanitation and waste management.
3. This study was funded by Cooperative Housing Foundation (CHF) Ghana with support from the Bill and Melinda Gates Foundation. The field exercise was carried out from June to July 2008.
4. Even though more recent data on sanitation from the Ghana Living Standard Survey 5 (GLSS 5) exist, the census data are more reliable as they covered all households in Accra. In addition, the GLSS data only cover a limited proportion of households and they are not disaggregated to cover urban neighborhoods such as Sabon Zongo.
5. As of June 2008, registered private waste collection companies providing door-to-door service charge households between GH¢ 7- 8 (US$ 5–6) per month irrespective of the size and weight of refuse.
6. Report titled *Construction of 20-Seater WC Toilet, Toll Booth Solid Waste Holding Bay, Paving and Fencing St. Thomas Sanitary Site in Sabon Zongo, Ablekumah Central Sub-metropolitan Council* submitted at a meeting of project stakeholders on 27 June 2008.
7. Interview with Deborah Pellow, an American professor of Anthropology, who has studied Sabon Zongo since 1982.

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