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# Barriers to Accessing Sanitation Facilities in Aboabo, Ghana

IBRAHIM Basiru* VINCENT Ekow Arkorful HELEN ARGBONSO Ashu SADIA Lukman CHARMAINE Priscilla Kwade
School of Public Affairs, University of Science and Technology of China, 96 Jinzhai Road, 230026, Hefei City, Anhui, China

**Abstract**
The main purpose of this study is to identify and discuss the specific factors that impede access to sanitation facilities in Aboabo urban slum in the Asokore-Mampong Municipal Area of Ghana. A qualitative approach was employed for the study. Data for this study was from both primary and secondary sources. Review of documents, interviews and observations were used to gather the data. Findings from the study suggested that, inadequate income to acquire private household toilet facilities, inadequate space in the homes for toilets, high user fees to use public toilets, low level of education and unhygienic toilet facilities were identified as obstacles preventing access to sanitation facilities in the urban slum. The findings of this study could apprise city authorities and policy makers to find solutions to sanitation in the Aboabo community.
**Keywords:** Poor sanitation, Sanitation facilities, Barriers, Access, Aboabo

## 1.0. Introduction

Globally, issues on sanitation and urban health have attracted several attentions as a result of their impact on human health (Kwarteng et al, 2015). Compared to water supply, recent figures show that sanitation has not always been given the needed attention, particularly, in most of low-income countries (Obika et al, 2003), which means that sanitation is much lower (WaterAid, 2009). Lack of adequate sanitation, poor drinking water quality and hygiene are associated with diseases and contribute to the main causes of illness and death in developing countries, including Ghana, especially among children under the age of five (Haider and Ali, 2009). According to the World Health Organization (WHO), approximately 80 percent of all childhood diseases and illness in the developing country are clearly connected to poor sanitation, water supply and hygiene (Annan, 2003). UN-Water (2008a) reported that, five thousand children die daily from infectious diarrhea, one of the leading causes of poor sanitation. Sanitation is a pressing health problem that negatively affects billions of people around the globe (Seetharam, 2015).

There is a considerable gain in access to water and sanitation facilities by population in absolute number. However, because of high population growth, the percentage coverage seems to be modest (Jha, 2003). Factors, for example, increasing population, rapid urbanization, congregation of urban poor in slums devoid of clean water and sanitation facilities in addition to increasing scarcity of resources have resulted in certain consequences. These consequences, according to the author include speedy deterioration in the quality of people's life, health, which in turn leads to low economic growth in developing countries such as Ghana. The situation is likely to worsen if measures to improve basic sanitation such as intersectoral coordination between di erent establishments, suitable technology for safe management of human waste, subsidies, among others are overlooked (Jha, 2003).

To improve the health condition of people, countries require systems for the safe collection and disposal of human waste by way of viable sanitation technologies and promotion of hygiene (Haider and Ali, 2009). Public health, together with sustainable development can be significantly improved by addressing the challenges of water and sanitation. The remarkable environmental and social changes that have occurred in the developed countries through the years were owing to clean water supply and a hygienic toilet inside or near the home (Kabange, 2017). In other words, access to clean water and adequate sanitation is crucial for health, livelihoods, security and quality of life (Duflo et al, 2012). Then again, access to clean water and sanitation is considered essential towards reducing poverty (WaterAid, 2009).

The financial autonomy of local governments is key to undertake high quality planning and budgeting for the sanitation service delivery (WaterAid, 2009). A major challenge of local governments is their inability to generate adequate local revenues. This explains somewhat the minimum funding allocated to sanitation. Likewise, discrepancies in legislation and regulation are evident, leading to overlapping of tasks amongst central government agencies and local government authorities at the sub-national level. This mix-up affects the smooth functioning of the local governments system in the provision of services including sanitation (WaterAid, 2009).

Preponderance of research studies on sanitation has been carried out in Aboabo. For instance, Abalo et al (2017) researched on the effectiveness and challenges characterizing the National Sanitation Day as a community sanitation participatory programme in Aboabo. Adubofour et al (2010) highlighted a field study on the extent of improved water and sanitation coverage in two urban slums, namely, Aboabo and Asawase. Nevertheless, to the best of our knowledge, no research studies have been found till now investigating the

 

challenges hindering access to sanitation facilities for the Aboabo community. Against this background, the main purpose of this study is to identify the underlying factors that hinder the urban slum of Aboabo in the Asokore-Mampong Municipal Area, Ghana, from accessing sanitation facilities. This is the lacunae the study intends to address. The essence of this study is to serve as a reference for future academic research in similar areas. Finally, this study will also apprise and inform policy makers, city authorities, and research organizations in Ghana and beyond.

**2.0. Sanitation facilities**

Cultural differences influence the way people generally perceive sanitation. For this reason, the concept of sanitation is difficult to define (Minh and Hung, 2011). WHO defines "*sanitation as the provision of facilities and services for the safe disposal of human feces and urine*" (WHO and UNICEF, 2010). It also refers to the *"provision of services and facilities for the collection, handling, treatment, disposal and/or use of mainly human excreta, and the related hygiene and health behavioral aspects"* (Ekane et al, 2016). Human excreta are the cause of many sanitation related diseases, such as cholera, dysentery, diarrhea, infectious hepatitis and hookworm (Jha, 2003). Studies have shown that more than 50 infections are transmitted in many ways from people with a disease to healthy people, directly or indirectly from human excreta, causing 80 per cent of disease in developing countries in particular (Jha, 2003).

Sanitation facility as used in the Joint Monitoring Programme (JMP) by the WHO and United Nations International Children's Fund (UNICEF), refers to toilet facilities (WHO/UNICEF, 2008). According to WHO, access to sanitation facility is to have adequate excreta disposal facilities capable of preventing human, insect and animal contact with excreta (Tumwine et al., 2003). A considerable number of community members lack sanitation facilities such as latrines (Jabeen, 2011). In the work of Kwarteng et al (2015) in Abuakwa, Ghana, residents lack sanitation facilities such as toilets, sewage system and septic tanks. Lack of proper sanitation facilities in crowded slums contributes to grave health and environmental threats for the entire populace, making the poor, especially vulnerable to infection such as cholera, diarrhea and dysentery (Duflo et al, 2012). In many urban settings, women and girls suffer attempt of assault or rape in an attempt to ease themselves at night. This is as a result of ashamed of having to defecate in public during the daytime. (Amnesty International, 2010).

However, interestingly, previous studies conducted so far have shown how access to basic sanitation facilities improve health and water bodies. It has also shown how it reduces truancy in schools. To Jha (2003), execution of basic sanitation facilities can slash the rate of disease by up to 77 percent. In India, in the District of Alwar, provision of sanitation facility at school has increased girls' enrolment by one third. Again, it has enhanced academic performance for both boys and girls by closed to 25 percent (UN-Water, 2008b). In China, water, sanitation and hygiene programmes have reduced absenteeism by almost 42 percent and cut down the number of missed school days by closed to 54 percent annually (Bowen et al, 2007). Provisions of sanitation facilities are required to prevent diseases, promote general well-being and to set the basis for human rights and sustainable development (UNICEF and USAID, 1997).

**2.1. Sanitation facilities in urban slum**

One of the greatest challenges of the 21st century is believed to be the provision of clean drinking water and basic sanitation for all (Elimelech, 2006). This is not the case with West African countries. In Ghana, sanitation has become a big problem, especially in urban slum areas (Kwarteng et al, 2015). In the work of Mahama (2013) in Ghana, it is found out that the quality of drinking water and sanitation facilities and services in Accra New Town, Nima, La, James Town and Bubuashie is not best. In another research, it showed that the level of practice of sanitation in sub-cities of Addis Ababa, Ethiopia, is found to be low (Aga and Worku, 2016). Study by Mazeau et al (2014) found that the vast majority of people in the low-income urban settlements of Kumasi, Ghana, lack access to in-house sanitation. The study again established that more than half of the population share the same living space with over 20 tenants, popularly called compound housing. To conquer the menace of sanitation, Mahama (2013) suggests improvement of infrastructure like housing, water and sanitation, particularly in the poor urban areas since poor urban areas remain the nucleus of a majority of the urban population.

More and more millions of people in poorer urban areas and informal settlements who have no access to private facilities on their plots due to lack of space have no option but to rely on public or shared toilets. Others resort to open defecation. Many communities due to the lack of toilets used the bush for defecation (Phaswana-Mafuya and Shukla, 2005). Kabange (2017) argued that open defecation is largely due to absence of access to sanitation facilities. Tsinda et al (2013) in their study conducted revealed that the majority of residents in some slum communities in Rwanda depend on shared sanitation facilities.

In low-income countries, population growth, together with rapid urbanization, has outstripped the development of sanitation infrastructure. This has left the slum areas practically with no sanitation facilities. Worldwide, about 2.4 billion people do not have access to basic sanitation, of which 80 percent are in Asia and

 

13 percent in Africa (Fakuda-Parr, 2002). About 82 percent of households with high and middle incomes in urban settlements received subsidies amounting to 50 percent of the total costs of the household toilet (Oduro-Kwarteng et al, 2009). This suggests that no form of support is extended to low-income settlements. Poor people in developing countries have an enormous disease burden due to poor sanitation, water supply and hygiene (World Bank, 2002). Most local authority and other agencies responsible for drinking water supply and sanitation are not equipped to deal with the complexities of slum communities (Mwanza, 2001).

**2.2. Sanitation facilities in Aboabo**

As 2015 and thus the Millennium Development Goals approaches, the challenges facing urban sanitation, particularly in slums, are more than ever. Shared sanitation, whether technologically improved or unimproved, it is expected to serve an increasing number of people globally (Heijnen et al, 2015). In Ghana, the 2004 World Health Survey mentioned that 84 percent of households using a covered dry pit latrine, shared the facility (WHO/UNICEF, 2006). According to Heijnen et al (2015), in order for these shared facilities, however, to be a sustainable step on the sanitation ladder, programme implementers, policy makers and target population should pool resources to ensure sanitation facilities are not only culturally appropriate but also affordable, user-friendly and well-maintained.

The sanitary conditions of urban slum centers in Ghana including Aboabo are poor. These poor sanitary conditions of urban slum centers encourage the spread of sanitation diseases such as cholera, diarrhea, dysentery, etc. (kwarteng et al, 2015). The prevalence of most diseases in urban slum centers in Ghana is connected to poor sanitation conditions and practices. Due to poor water, sanitation and hygiene, Ghana recorded some 28,922 cases of cholera in 2014, with 247 deaths. This was the highest number of cholera cases in Ghana in the last thirty years (MOH, 2014). Available statistics show that poor sanitation costs Ghana US$290 million every year, accounting for 1.6 percent of the national Gross Domestic Product (WSP, 2012).

Lack of adequate sanitation facilities in Aboabo has led to a high degree of open defecation practices into gutters, open plots and nearby bushes (Adubofour et al, 2010). It has also resulted in an indiscriminate disposal of children's feces polluting the environment of Aboabo community with fecal matter. Consequently, diarrhea among children under five and malaria are extremely high in the community (Adubofour et al, 2010). In the first quarter of 2016, according to Asokore-Mampong Municipal Health Directorate report (2016), Aboabo recorded 163 cases of diarrhea.

**2.3. Factors impeding the use of sanitation facilities**

A crucial step in resolving drinking water and sanitation crisis on the planet is to understand its magnitude (Sellathurai, 2014). That is, what barriers prevent people or communities from gaining access to sanitation facilities in certain parts of the world? Barriers to sanitation refer to anything that restricts access to and/or use of water, sanitation and hygiene facilities, leading to unacceptable use of water, sanitation and hygiene facilities. It also refers to limiting participation in water, sanitation and hygiene programmes; reducing access to information about water, sanitation and hygiene. Water, sanitation and hygiene are now recognized by the United Nations as basic elements of human right after a resolution passed in 2010, and so appealing for international efforts to assist countries to deliver clean, safe, accessible and affordable drinking water and sanitation (WHO Factsheets, 2018). This is possible by uncovering these barriers to know the exact problems so that sanitation needs of people could be realized with apt solutions.

Literature is reviewed to pinpoint some elements impeding urban slum communities from accessibility of sanitation facilities.

In a study conducted in Kisumu, Kenya, to determine communal usage of sanitation facilities, it is found that factors such as economic aspects, poor maintenance, location together with issues of gender affect the use of communal facilities (Simiyu, 2015). He/she therefore argued that these factors are necessary and should be incorporated in future sanitation interventions. Phaswana-Mafuya and Shukla (2005) in a different study indicated that low incomes, unemployment, poor living conditions, low level of education and lack of recreational facilities were perceived as discouraging factors for the adoption of safe sanitation facilities. Equally, the high cost of water and sanitation for low income households and the dearth of capital for investment were also cited as factors. Another study carried out by Mahama (2013) in selected low-income urban communities in Ghana, suggested that inadequate incomes and low levels of education are the major factors reducing access to water and sanitation facilities.

According to Grossi et al (2016), access to sanitation facilities is hindered by poor building materials, lack of privacy, insufficient maintenance and cleanliness, poor illumination and cold temperatures. Avoidance of toilet is common when sanitation facilities are reported to be dirty, overcrowding and smelly. Insufficient hygiene education as a result connotes that the practice of healthy behaviors is not advocated. Awuah (2009) posited that the accessibility of sanitation facilities does not automatically translate into effective use, because of cultural beliefs, norms and taboos.

 

Alemu et al (2017) in a related study categorized barriers to sustain adoption and use of sanitation facilities into four. These are individual level factors, household level factors, community level factors and societal level factors. The authors argued that individual level factors comprise past latrine experience, lack of adequate demand and perceived high cost to improved latrines, whereas household level factors encompass the lack of space, absence of strong family members and unaffordability. They further stated that community level factors involve inadequate access to public latrines, inadequate financial access for the poor and inadequate shared rules against open defecation. Finally, societal level factors consist of flooding, soil conditions, lack of suitable sanitation technology, lack of demand creation for improved latrines, lack of promotion and lack of strong local leadership.

## 3.0. Materials and Methods

### 3.1. Brief overview of study area

The study area is Aboabo Community. It is located within the Asokore-Mampong Municipality. The Municipality is one of thirty (30) Administrative districts in the Ashanti region of Ghana. Aboabo is the second most populated area in the Municipality. It has a total population of nearly 60,136 as at 2010. The Municipality was carved out of Kumasi Metropolitan Assembly as a result of the growing population in the Metropolis. The goal was to facilitate local development for the benefit of the people at grass root level (AMM, 2014).

The Municipality was created on June 29,2012, under the country's decentralization Programme, with Asokore-Mampong as its administrative capital. Asawase also forms part of the environs of Municipality of Asokore-Mampong. The Municipality covers a total land area of 23.91-kilometer square and located to the North-Eastern part of the Kumasi Metropolis. Asokore-Mampong Municipality as of 2014 was projected to record a population of 431,355 with an annual growth rate of 8.68 percent. It has a population density of 12,746.3 persons per square kilometers.

The total dependency ratio for the Municipality is 64.3. This means for every 100-working population, there are about 64 dependants. This demonstrates high dependency within the Municipality. The proportion of dependants males is 67.5 and that of females is 61.5. Indiscriminate dumping of refuse into gutters, open drains, open defecation, etc. are visible in this Municipality (AMM, 2014).

### 3.2. Sources of data and analysis

The study was based on data collected through primary and secondary sources. The primary data was collected from residents in Aboabo through interviews (face-to-face) and observation techniques. Secondary sources of data were drawn from reports, publication of peer review journals, dissertations and internet sources. Due to paucity of time and financial resources, a total of 205 respondents in Aboabo was chosen using a simple random sampling. The interviews were conducted in the morning, afternoon and evening when users are about to enter the facility or had finished using it. To abide by ethical issues, the research objective was explained to each respondent and interviews were conducted after their approvals. Observations were also carried out to assess the level of hygiene, sanitation infrastructures, nature of housing, and all that, to substantiate the responses of the many inhabitants of the community. In terms of data analysis, the data obtained for this study from the field were recorded and transcribed. The transcripts were first sorted and edited to get a greater understanding of collected field data. The researchers classified the field data into a number of themes so that it could be easily analyzed to achieve the purpose that was under study. Data was analyzed qualitatively.

## 4.0. Findings and Discussions

This subsequent section analyzes the data collected on barriers to accessing sanitation facilities in an Aboabo urban slum by means of interviews, observations and review of documentary materials. The main themes that became apparent from the analysis comprised: income, space, user fees, maintenance (cleanliness), distance, and education.

### 4.1. Income

Income levels are crucial to the effective provision of sanitation facilities. Phaswana-Mafuya and Shukla (2005) and Mahama (2013) have underscored the importance of income to effective provision of toilets in the homes. The greater part of Aboabo residents lack household toilet facilities. Data collected from the field work reveals that majority of households in the Aboabo urban slum earns lower income. They are involved in low-income activities. These make it difficult for the residents to put up toilets in their homes. Residents in the Aboabo community revealed the following narration:

*"Many residents do not have toilet facilities in their homes. The reason being that I, for instance, I am unemployed, so difficult for me to raise money to provide toilet facilities for my families."*

*"The nature of the work I am doing cannot provide me enough income to feed myself, let alone to think of having a toilet in my home."*

 

This means that higher income is an important element of the decision to acquire home toilet facilities. In the case of Aboabo, inadequate income is the major factor preventing some residents from having decent toilets in their homes. This indicates the expensive nature of having sanitation facilities. Our interactions with one of the respondents had this to lament:

*"Comparing my earnings with the cost of constructing toilet, it is expensive. I need to borrow money to augment what I had before I put up a latrine. It is not easy my brothers and sisters the question is where will I even borrow this money?".*

This is clear that the cost of constructing household toilets is not affordable for the residents of Aboabo since they need extra funds in addition to what they earn. This finding is consistent with the argument that high sanitation costs to families of low-income are the main barrier to access sanitation facilities (Phaswana-Mafuya and Shukla, 2005). In addition to work of Tumwebaze and Luthi (2013) in poor urban areas of Kampala, Uganda, it was discovered that close to 90 percent of occupants reported high cost of sanitation facilities (i.e. 201.21 United States Dollar).

### 4.2. Space

One reason that diminishes access to sanitation facilities, is said to be linked to an insufficient place for toilets. It was revealed during the study that scarcity of space and poor housing layouts are the greatest challenge for the slum residents to own a clean and safe toilet facilities within their homes. Residents have erected illegal structures without recourse to its impact. Some residents lamented:

*"Our homes were designed in such a way that putting up a toilet building become a serious challenge. I cannot find a place anywhere here. People have built structures anyhow, taking all the spaces we need for our own convenience".*

*"My children, we lack toilet facilities because we cannot find space for the building of household toilets. Our buildings are old and also common to find unauthorized structures.*

This finding supports Oduro-Kwarteng et al (2009), who concluded that most of the low-income households living in multi-family houses were unable to acquire household facilities because of limited space. The finding also corroborates with what was suggested above by Mazeau et al (2014) and Alemu et al (2017). The above is an indication that well and proper planning of a community and housing largely contributes to better living conditions and country's development outlooks. Carefully planned communities and housings provide enough space for people to acquire individual toilets. According to Kariuki et al (2003), improving basic sanitation in slum areas is a real challenge because of their haphazard infrastructure arrangements. Poor households as a result are more prone to be exposed to unsafe sanitation and poor environmental diseases.

### 4.3. User fee and maintenance (cleanliness)

User fees are payments made before using a public toilet. Public toilets are envisaged to serve an enormous number of people to tackle issues of open defecation and check sanitation related diseases. The maintenance of public toilets is essential to check these diseases, and payment of user fees play a crucial role towards this direction (maintenance). The study finds that residents of this urban slum have made a series of whined that they are charged exorbitant fees at any time they pay a visit to the toilet, contending that they work to survive and that the charges are costly. The only option available is to locate a bush to defecate. WHO Factsheets (2018) have also shown similar results. It found that high charges to use public toilets in slum settlements contribute to open defecation placing people at the peril of sanitation diseases. They observed that countries where open defecation is highly pervasive record the highest number of deaths of children below 5 years with the highest level of diseases, poverty and malnutrition. One resident explained that:

*"We normally defecate in the open drain because I must pay close to one Ghana Cedis in advance to use the public toilets. Some of us suffer before getting money to even buy "one ball of kenkey." If I visit the public toilet fifteen times in a day, I am required to pay."*

Another finding reveals that the residents have neglected public toilets throughout the community and engaged in an open defecation. Public toilets in Aboabo receive not much attention in terms of proper management and maintenance. Most of them are not hygienic and have unpleasant smells as well. The study finding agrees with what has been stated earlier on by Grossi et al (2016) and Simiyu (2015). Some residents said:

*"I prefer to defecate in the bush or river to going to the public toilet. Public toilets smell bad. Inhaling this smell is not good for our health. Besides this, the public toilets are usually jam-packed causing lot of uncomfortable."*

*"For me, they are unhygienic, but I think it is better than debasing my dignity by engaging in open defecation."*

*"The public toilets are not kept clean. Anytime I visit public toilet I complain to the caretaker. Sometimes I feel like finding a corner to do my own thing."*

Overall, each resident interviewed had a concern about the way and manner in which public toilets are handled. The concerns are high user fees and the lethargic attitude of caretakers to ensure cleanliness of public

 

toilet facilities. The public toilets appear to be inadequate, as users have to wait in line before gaining access to. The views of the residents indicated the need to promote good environmental sanitation through the maintenance of public toilets, affordable user fees and also the provision of public toilet facilities to match up with the population. This could thwart the scourge of defecating in the open, thereby preventing diseases and ensuring high-quality public health.

### 4.4. Distance

Hutton (2012) documented that sanitation facilities (toilets) are normally located in places far from the service users. This leads to insufficient access to sanitation in a number of households in low as well as middle-income countries. This is because households in areas in low as well as middle-income countries get rid of human waste at nearby places. With regard to distance to toilets in Aboabo, residents have diverse opinions. Per the interviews conducted, some of them seem to be satisfied with where these public toilets are, as it is easy for them to have access to them without going far away. One resident stated:

*"Most public toilets are closed to us and no need for some of us to walk for long distance, just that it needs improvements because its closeness is causing us with a stench."*

The distance between the residents' homes and public toilets is not an impediment to the accessibility of sanitation facilities.

### 4.5. Education

Education empowers slum community dwellers to understand the impacts of unsatisfactory sanitation facilities and make demands on the appropriate institutions in order to escape the substantial risk of contracting sanitation related diseases. Mahama (2013) claimed that low literacy level serves as a great obstacle to empowerment. It was gathered that educational levels in this community are very low, limiting their capacities to access better sanitation facilities. Local authorities do not respond to their requests when they channel their displeasures about the poor state of sanitation in the community. A community member commented that:

*"We have been neglected when we make complains to the appropriate institution about issues of unhygienic public toilet facilities".*

Similarly, the study gathered that some residents seem to have little information or knowledge that resorting to defecation in the open space causes diseases as well as environmental pollution.

*"I would say that I do not see any linkages between open defecation and anything like diseases, pollution, etc. It is not today that I have been defecating outside. I feel comfortable doing so".*

This finding is in line with the response Abalo et al (2017) had from the Senior Operations Officer of Zoomlion, a waste management company in Ghana, during his research survey at Aboabo. The officer pointed out that education in this community (Aboabo) is low. Therefore, members of this community do not really know the importance of keeping a clean environment, thus the practice of open defecation.

## 5.0. Conclusion and Policy Recommendations

The study has examined the underlying factors impeding access to sanitation facilities in the community of Aboabo. Drinking water and sanitation have been described as a human rights issue. In Aboabo, many residents do not have access to household sanitation facilities, so depend on public facilities which some residents have abandoned their use. From the review and analysis of data, except for the distance to toilets, the barriers to accessing sanitation facilities in the community, generally can be attributed to low income level, high cost of acquiring individual toilets, lack of space in the homes for toilets, exorbitant user fees, low educational level, lack of hygienic and poor toilets maintenance. To curb the obstacles mentioned above, our study proposes the following recommendations. Firstly, it is recommended that city authorities should institute monitoring teams to undertake regular inspections of public toilet facilities to ensure that caretakers keep them clean and hygienic, it will make the facilities more user-friendly. Secondly, user fees paid by residents to access toilet facilities should be subsidized or reduced to enable residents access designated facilities. This will eliminate open defecation and along these lines promote good environmental quality as well as health. Thirdly, any residents seen indulging in open defecation should be arrested and made to face the full rigor of the law. This will go a long way to deter possible lawbreakers from similar acts. Besides, Aboabo housing structures/designs and layouts should be improved. This will enable occupants have sufficient space to own private facilities. Furthermore, the government through city authorities should embark on a policy of giving financial support to this slum. It will aid them to have private facilities in their homes. Lastly, the study further recommends that similar topic of this research study can be done in other communities or districts of Ghana. The research study should be carried out quantitatively.

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