

PUBLIC CONVENIENCES AND SANITATION CHALLENGES IN DEVELOPING NATIONS: A FOCUS ON AGEGE, LAGOS, NIGERIA

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ABSTRACT

Public conveniences are crucial infrastructure necessary for social well-being and practical operation of a functioning city. The provision of public toilets has implications for public and individual health. This paper discusses the sanitation challenges of public toilets in commercial and residential areas of Agege, Lagos State, Nigeria. Data was collected through the instrumentality of three sets of structured questionnaires. The questionnaires were administered on government agencies, operators and users of public conveniences in the study area. The simple random sampling technique was used to select 10% of public toilet operators and users in 28 public conveniences in the study area. Empirical analysis shows that over 83% of users rated the condition of public toilets in the study area as very poor; while more than 65% of respondents identified dirty environment and bad odour as the major challenges in using public toilets. Cleanliness ranked first among users' reasons for preferring private toilets in public buildings to public toilets in the study area. About 80% of users identified water as a major cleansing agent in the toilets while over 70% of users are willing to pay just ₦40.0 which is about US \$0.2 for using public toilets in Agege. This study recommends hygiene education among users and training of operators/cleaners in the arts of keeping clean and hygienic public toilets. Governments at local, state and federal levels are also required to work in partnership with the private sector and user communities to make the provision, operation and management of sanitation facilities sustainable.

Keywords: *Public Toilets; Sanitation Facilities; Environment; Developing Nations; Agege, Nigeria.*

1.0 INTRODUCTION:

Public conveniences are often thought of as toilets that allow people to meet their sanitary needs in public places such as markets, and transport centres (Kolsky, 2006). Evidence of lack or unimproved public convenience abound for the need users as it is not uncommon to see defecated materials and offensive odour emanating from urination especially in market places, drainage systems (gutter), open spaces, motor-parks, etc. Hygienic public conveniences are located for the transient population in all areas of intense public activities such as markets, shopping areas, transport terminal, etc. (Lenason, 2009).

The provision of properly managed functional public convenience facilities located in high density areas such as markets, motor parks and open spaces will consolidate sanitary efforts of the State Government in respect to the mega-city concept and significant reduction in health related problems (Asabia, 2011). Therefore, this study aims to assess the prevailing conditions of public conveniences in Agege with a view to identify ways of improvement. This will complement the State Government efforts to transform Lagos into Africa's model Mega city that is clean, secure, livable, functions efficiently and enables people to express their potentials (Olokesusi, 2011).

Eromosele (2012) and Awoyinfa (2012) note that using public toilets in Lagos is 'paying to get infected.' Most public toilets in Lagos are unhygienic, decrepit and neglected without government approval. Documental evidences from the Ministry of Environment revealed that of the twenty eight (28) public toilets in the study area, five (5) are built by the Government with approval while the remaining twenty three (23) are privately owned without approval (Awoyinfa, 2012). The present state of lack of quality and inadequate away-from-home toilets in a hustling and bustling environment like Lagos and other parts of the country might have compelled 34 million Nigerians to practice open defecation "depositing about 1.7million tonnes of faeces into the environment annually," (WSP, 2012).

The situation of public toilets in Lagos, whereby open spaces, water bodies, public places and drainage systems (gutters) exude smelly, offensive, putrefied odour emanating from indiscriminate urination and open defecation (Asabia, 2008, WASH, 2010, Olokesusi, 2011) as a result of inadequate and ill-managed public conveniences paint a gloomy picture of what Egunjobi (1998) as quoted by Wahab (2008) termed "the ugly face" of city capable of over shadowing the "pretty face" of the concerted efforts of the mega-city status with looming health and environmental implications.

The provision of public toilets and its management has both social and political implication (Ugwa, 1993). Socially, public facilities are of great importance to transport, communication, health, safety and others in shaping the life of people. Politically, they are of collective challenge to privatizing enterprises who replace public services for profit making. Since the availability of city infrastructure makes the society comfortable and habitable (Olokesusi, 2011); this paper therefore addresses the sanitation challenges of public toilets in commercial and residential areas of Agege, Lagos State, Nigeria with a view to enhancing the health and living environment of the citizenry.

2.0 Review of Empirical Literature

Asabia (2010) eulogised Lagos State effort to addressing public toilets and sanitation issues. He asserted that the Provision of modern public toilet facilities combined with hygiene education in high density locations such as markets, motor parks and low income settlement areas is the social solution needed to stop the common practice of open defecation in Lagos State. UNICEF (2008) opines that 70% of the population in Lagos do not have access to functional and well maintained sanitary facilities. This suggests that about 12 million out of the 18 million inhabitants of Lagos State lack access to effective sanitation.

Public toilets are not only needed for regular purposes but also important during a particular occasion or event (Shamim, 2011). According to Durojaiye as reported by Okiri (2012), Nigerians celebrate anything, especially in the South-West. However, when they are celebrating, there are no conveniences. According to Somerset (2011) wherever people go, outside of their own home, toilet facilities are needed for the enjoyment of the area by visitors and also residents who may be some distance from their home. They can make a significant impact upon the comfort of individuals and families who visit public spaces and their perception of the area as a desirable place to visit.

On the design and location of public toilets, Greed 2005, opines that toilets should be proudly placed out in the open and not hidden but thoughtfully designed. Toilets should be located in central public thoroughfares, squares, in open well lit areas, and people should be proud of them as an important townscape statement in their own right (Greed and Roberts, 1998:34). Public toilets that are badly designed, badly maintained and poorly located generate a sense of neglect, attracting vandalism, anti-social behaviour and social disorder (UK Department for Communities and Local Government, 2008).

On the use of signage for public conveniences, Greed (2004), Drangert and Greed, 2010 opine that the use of signage is very important as it depicts how to find

available public conveniences. Signage facilitates good direction to sanitary facilities and individual facility information signs (Somerset, 2011). On the health of communities and availability of public conveniences, Greed and Daniels, 2002; Greed, 2003a; Hanson et al, 2003 opine that public toilets are vital facilities that might contribute towards the health and well-being of a nation. Greed (2006), notes that public toilets are vital components in creating sustainable, accessible and inclusive cities.

A lack of toilet facilities at the right time in the right place contributes to dirty streets that are unsanitary, unpleasant and can spread infection (Greed, 2006). A lack of available and appropriately located public toilet facilities at the right time during the day and night encourages street fouling seriously impairing quality of place and quality of life for local people. Safe disposal of human waste is most important to improve community health and quality of life (Nwachukwu, 2008). One of the main means of transmission of many classic diseases and many urinary, vaginal and anal infections is from human faeces, therefore it is always extremely important to provide clean public toilets (Hawker et al, 2001).

2-1 Environmental and Health Implications of Public Conveniences

There is a direct link between urban environment degradation and public health considering water related diseases such as diarrhea, dysentery, cholera, and typhoid that are ravaging man (WHO, 2007). Human waste is responsible for the transmission of infectious diseases such as cholera, typhoid, dysentery, and diarrhea (Pickering and Owen 1997:187). Approximately according to Wikipedia (2005), 14,000 people die each day from preventable water-borne diseases because of inadequate sanitation and hygiene practices. This must have prompted Wahab (2004) to opine that most of the endemic diseases of Africa are best addressed through sanitation and hygiene.

Nigeria and many developing countries, have no central sewage collection and disposal system. Every home in the urban and semi-urban areas utilizes

block lined private septic and soak away pits for excreta and sewage disposal (Nwachukwu, 2008). The greatest dangers lie in the evacuation and disposal of the excreta and sewage from the septic and soak-away pits when they fill up. After the evacuation, how the excreta-sewage is disposed of is a matter for great concern (Nwachukwu, 2008). Baarschers (1996:153), Wright and Nebel (2002:453) affirmed that raw sewage is often dislodged into surface water without any form of treatment. Miller (2000:550) also asserted that in many developing countries and in some developed countries, sewage and water-borne industrial wastes are discharged without treatment into the nearest waterway or into lagoons.

According to Njoku (2006) the lagoon front at Iddo in Lagos State for instance has been turned into a dump for human and all sorts of solid waste. Trucks fully loaded with feces queue up in large numbers to discharge the contents into the lagoon. Obire et al (2003) affirmed that domestic sewage and industrial wastewater containing large quantities of chemical substance drained into rivers without treatment causing serious water pollutions. The challenges posed by insanitary non-solid waste management in Nigerian cities are grave (Kamaldeen and Wahab, 2011). This is made worst due to non-existence of sewage system in any of the city (Kamaldeen and Wahab, 2011); and inaccessibility to excreta disposal system (Linn, 1983:18).

National Planning Commission (2004:34) confirmed that Nigerian cities have inadequate systems for the safe disposal and treatment of waste Kamaldeen and Wahab (2011); while Lagos State Ministry of Economic Planning and Budget (2004:10) concluded that water pollution is worst in Lagos city due to unwholesome disposal of solid and non-solid wastes. Adeyemo (2003) notes that in Nigeria, like many developing countries, the discharge of untreated wastes into the environment is still a problem, despite the establishment of Federal Environmental Protection Agency (FEPA) since 1998.

In furtherance to the above observations, Nadkarni (2004) stated that pollution of rivers, lakes, oceans and groundwater with sewage damages aquatic

biodiversity and as a result, only a few forms of life survive; more so, when local people might be dependent on some of the affected species for food and livelihoods.

2-2 Sanitation and Hygiene

WHO/UNICEF (2008) categorizes sanitation facilities as follows: improved - facilities that ensure hygienic separation of human excreta from human contact; shared - sanitation facilities of an otherwise acceptable type shared between two or more households, e.g. public toilets; unimproved - facilities that do not ensure hygienic separation of human contact, e.g. pit latrines and; open defecation - defecation in fields, forests, bushes, bodies of water or open spaces, or disposal of human feces with solid waste. At least 2.6 billion people in the world are estimated not to have access to basic sanitation, of which 72 percent live in Asia and 565 million are in Africa (WHO/UNICEF, 2010). Diseases related to contaminated drinking-water, unsanitary food preparation, unimproved excreta disposal and unclean household environments constitute a major burden on the health of peoples in the developing world and are among the leading causes of ill-health (UNICEF, 2005). The poor in developing countries are burdened by the indignity, shame and sickness that result from a lack of hygienic sanitation (Mulenga, 2011).

It is also common practice in most African and Asian countries to let children defecate in the open even in settlements well served with improved sanitation facilities because of the belief that children's excreta is not as harmful as that of adults; in some cases the adults just cannot be bothered to take the children to the toilets (Mulenga, 2011). Such practices expose entire communities to harmful pathogens.

Although the sanitation coverage is much lower in the rural areas compared to the urban areas, those living in urban areas face a greater risk to health. This is due to the much higher population densities in the informal settlements where the worst environmental health conditions prevail, resulting in illness and death (Hardoy and Satterthwaite, 1989 and Mulenga et al., 2004). Most of the informal settlements have grown up rapidly on the edge of major African and

Asian cities due to the failure by authorities to plan for their development (Mulenga, 2011).

Inadequate sanitation or lack of access to sanitation poses a great threat to human health, taking a heavy death toll especially on children and degrades the environment. On the other hand, good sanitation saves lives and prevents degradation of the environment. In most of the developing countries, it is common practice for people to answer the call of nature in the open field or use so-called "flying toilets", which results in a poor sanitary, health and environmental situation (Drewko, 2007).

3-0 Materials and Method

3-1 Research Locale:

Lagos is one of the mega cities in Africa which is located in South Western Nigeria on the west coast of Africa, within latitudes 6°23' N and 6° 41' N and longitudes 2° 42' E and 3°42' E. Although Lagos state is the smallest state in Nigeria, with an area of 356,861 hectares of which 75,755 hectares are wetlands, yet it has the second highest population, which is over 5% of the National estimate. However, a parallel population count by the Lagos State government put the population at about 17 million, the state's population according to the 2006 census was 9,013,534 out of a national estimate of 140 million (National Population Commission, 2007).

Agege is in metropolitan Lagos, an area covering 37% of the land area of Lagos State is home to over 85% of the state's population. The rate of population growth is about 275,000 persons per annum with a population density of 2,594 persons per square km. In a United Nation's study of 1999, the city of Lagos was expected to hit the 24.5 million population mark by the year 2015 and thus be among the ten most populous cities in the world (Lagos State Government, 2006). Lagos' share of Nigeria's GDP is 12% valued at USD 29 Billion from USD 18 Billion in 2005. It has 80% of country's industrial / commercial activities, 45% of national electricity consumption and 50% of petroleum products consumption (Lagos State Vision 20:2020 First Implementation 2010-2013).

Agege Local Government is a densely populated and multi-ethnic Local Government of Lagos (Olukoju,

2006). It is one of the 20 LGAs making up Lagos State, Nigeria. It has a population of 461,743 comprising of 238, 456 males and 23,287 females (NPC, 2006). Lagos Bureau of Statistics (2012) puts the population of Lagos State at 1,033,064 i.e. 564,239 and 468,825 male and female respectively.



Figure 1. Lagos State in its National Setting
Source: Federal Government of Nigeria, 2008 (Digitized in AutoCAD by the Authors)

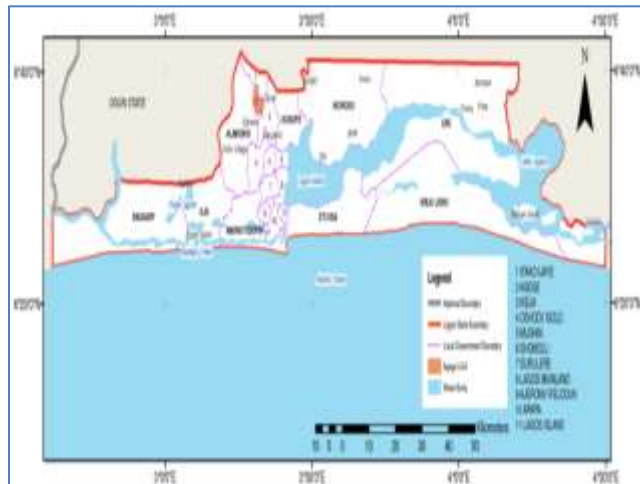


Figure 2. Agege Local Government Area in its Regional Setting
Source. Lagos State Ministry of Physical Planning and Urban Development (2006) (Reproduced in Arc Map 10 by the Authors)



Figure 3: Map of Agege- the Study Area
Source: Ministry of Lands and Housing, Lagos (Re-produced in ArcMap 10 by the Authors)

3-2 Database Description

Data was collected through the instrumentality of three sets of structured questionnaires to assess the condition of public conveniences. The questionnaires were administered on government agencies, operators and users of public conveniences in Agege LGA. The Simple random sampling technique was used to select operators and users in the 28 public conveniences in the study area. The sample size of users was derived from periodic counts made on Mondays, Wednesdays and Saturdays which represent first day of the week, mid-week day and last day of the week respectively. The study was carried out between the hours of 12.00pm and 5.00pm when the weather must have been hot and the body system yielding to toilet services. Ten percent (10%) of counted users (340) was considered in this study for homogenous characteristics. Table 1 shows sampling in public toilets in Agege LGA, Lagos.

Table 1: Sampling in Public Toilets in Agege LGA, Lagos

Toilet Location	Periodic Counting Days			Total	Average	10% of Average
	Monday	Wednesday	Saturday			
Alimi street I	97	104	112	313	104	10
Alimi street II	98	106	115	319	106	11
Aluminum*	300	310	315	927	308	31
Abiola*	195	200	217	612	204	20
Asade*	248	254	258	760	253	25
Ogba Rd2.	102	105	110	317	105	11
Ogba Rd5.	102	106	112	320	106	11
Adenle Street.	75	75	78	228	76	8
Dehinde Street.	73	75	77	225	75	8
Owo Street.	103	108	112	323	107	11
Ekerin Street.	102	105	110	317	105	11
Adeniyi Lane	83	85	88	256	85	9
Sadiku Street.	80	85	82	247	82	8
Adisa Street	72	74	76	222	74	7
Railway Line	305	308	310	921	307	31
Ipaja Rd.	120	124	128	372	124	12
Abeokuta Rd1	121	124	126	368	122	12
Abeokuta Rd2	152	156	158	466	155	16
Thomas Street	72	70	74	216	72	7
Thomas Lane	98	103	105	306	102	10
Alagbigba 1	80	82	85	247	82	8
Alagbigba 2	70	73	75	218	72	7
Oloko Lane	82	84	86	252	84	8

Market. Street	102	105	103	310	103	10
Odunsanya Street	105	108	110	323	107	11
Borokini Street	71	74	76	221	73	7
Aborishade Street	69	73	76	218	72	7
Ogunji Street	124	127	130	381	127	13
TOTAL	3,301	3,393	3,504	10,205	3,392	340

Source: Authors' Fieldwork, 2012

4-0 Results and Discussion

4-1 Hygiene State of Public Toilet in Agege, Lagos

Table 2 shows the opinion of respondents on the condition of public toilets in both commercial and residential areas of the study area.

Table 2: Condition of Public Toilets in Commercial and Residential Areas of Agege

Condition of Toilets	Commercial		Residential		Total	
	Freq.	%	Freq	%	Freq.	%
Very good	12	6.2	22	16.5	34	10.4
Good	0	0.0	20	15	20	6.1
Fair	53	27.3	46	34.6	99	30.3
Poor	92	47.4	25	18.8	117	35.8
Very Poor	37	19.1	20	15.0	57	17.4
Total	194	100.0	133	16.5	327	100.0

Source: Author's field work, 2012

Generally, about 16.5% of respondents considered public toilets in the study area as good while the remaining 83.5% in both commercial and residential areas opines that public toilets are poor. Eromosele (2012) and Awoyinfa (2012) posit that public toilets in Lagos are unhygienic and dilapidated. Observation revealed that the very good rated toilets are the ones

along Ipaja road, Ogunji and Bisi Odunsanya streets which have elements of good street layouts. However, management of public toilets has been considered a daunting challenge, although recent experience shows that it can be overcome in some cases (WSTF, 2009). The sorry state of some public toilets in the study area have been attributed to the

scourge of unprofessional operators, high rate of illiterate users coupled with under paid cleaners and institutional weakness. This is why Bernama (2011) concluded that people need ethics in using public toilets. Plate 1 shows a public toilet at Mosalasi community in the study area.



Plate 1: A Pit Latrine in the Study Area.

Plate 1 shows unhygienic and unsanitary condition of a Pit Latrine at Mosalashi area of Agege. The floor and wall tiles are dilapidated and hideous due to poor management and usage.

In the opinion of Akhter (2013) the unhealthy and unhygienic conditions of public toilets keep the people away from using them with serious health implications for the city dwellers. Hygiene education among users, better remuneration and training of operators/cleaners are vital in maintaining clean and hygienic public toilet. Drangert and Greed (2010) affirm that good public toilet management involves good maintenance and cleaning regime, plus users' education on proper public toilet use.

4-2 Public Toilets and Users' Challenges in Agege

Figure 1 shows users' challenges while using public toilets in the study area.

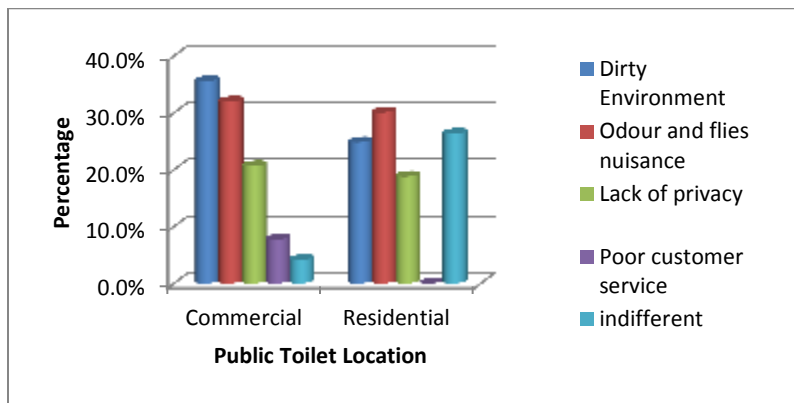


Figure 1. Users' Challenges using Public Toilets in Agege

Source: Fieldwork, 2012

In commercial areas, 35.6% of respondents identified dirty environment as their major challenge while using public toilets. About 32.0% of the users identified bad odour and presence of flies as their major challenge; while lack of privacy was identified

by 20.6% of users as their major challenge. Since the environment has been considered dirty, the presence of flies and unpleasant odour are inevitable. Lack of privacy of users can be attributed to non availability of doors in most of the toilets. The absence of signs

of gender users or demarcation to separate male and female users makes intruding into ones privacy while inside the facility inevitable. In residential areas, the problems of dirty environment, presence of bad odour and flies and lack of privacy were identified by 30.1%, 21.7% and 18.8% of respondents respectively (see plate 2).



Plate 2: Public toilet environment at Railway line, Agege

About 31.2% of respondents identified dirty environment as the major challenge in using public toilets in the study area. This trend adds to the insalubrious and unhygienic image of public toilets which facilitate germ transmission (Greed, 2006). About 31.2% of respondents identified bad odour and nuisance of flies - which is characteristic of dirty environments (WSTF, 2009) The menace of flies and bad odour and the concomitant infectious diseases can be prevented by keeping public sanitation facility and its surroundings very clean and dry (WSTF, 2009)

4-3 Preference for Private Toilets in Public Buildings among Users in Agege

Users of public toilets in the study area, prefer private toilets in banks, eateries etc. The reasons given for their preference for such toilets include: free service - 21.1%-; privacy – 26.3%-; and cleanliness – 51.5%

Table 3: Users’ Preference for Private Toilets

Reason	Commercial		Residential		Total	
	Freq.	%	Freq	%	Freq.	%
No charges	36	21.1%	21	22.6%	57	21.6%
Proximity	0	0.0%	0	0.0%	0	0.0%
Privacy	45	26.3%	47	50.5%	92	34.8%
Cleanliness	88	51.5%	25	26.9%	113	42.8%
No reason	2	1.2%	0	0.0%	2	0.8%
Total	171	100.0%	93	100.0%	264	100.0%

Source: Author’s field work, 2012

In residential areas about 70% of users indicated their preference for private toilets in commercial facilities. The reasons given were not different from those in commercial areas. Generally, the use of clean, odour-free and appealing water closet systems make users’ comfort quite relishing unlike the ill-managed squatting or pit options that characterized majority of

the public toilets in residential neighbourhoods . Unlike in private toilets, the doors of public toilets deteriorate and break, allowing passers-by look right into the stalls. Nitti and Sarkar (2003) note that, the design and location of toilets play a critical role in reducing the safety and privacy for women and young girls. The use of water closets and their

pristine conditions make private toilets preferable to public toilets in the study area. Antwi-Agyei (2009) notes that users prefer water closets to any other type of toilet facility as it is comparatively cleaner and free from odour and flies nuisance. This once again demonstrated the importance of cleanliness and privacy in public toilet management which is also true for better patronage in public toilet provision and management.

Hand cleansing after toilet use is vital in maintaining personal and public hygiene. The cleansing materials available to public toilet users in the study area include: water, soap, disinfectant and towel. Table 4 shows that only 16% and 17% of users have access to soap and disinfectants respectively.

4-4 Available Hand Cleansing Materials for Public Toilet Users in Agege

Table 4: Available Hand Cleansing Materials for Public Toilet Users in Agege.

Materials	Commercial		Residential		Total	
	Freq.	%	Freq	%	Freq.	%
Water	170	87.6%	89	66.9%	259	79.2%
Soap	19	9.8%	22	16.5%	41	12.5%
Disinfectant	5	2.6%	22	16.5%	27	8.3%
Towel	0	0.0%	0	0.0%	0	0.0%
None	0	0.0%	0	0.0%	0	0.0%
Total	194	100.0%	133	100.0%	327	100.0%

Source: Fieldwork, 2012

About 79.0% of public toilet users are accessible to water only for hand washing after toilet use while 12.5% and 8.3% use water with soap or disinfectant respectively. Investigation revealed that the availability of soap and disinfectant are for users who request for it and not displayed for users consumption. In other words, the use of water is the popular hand cleansing material among toilet users in the study area. The predominant use of water only for anal and hand cleansing are attributable to two factors: firstly, it is a wide cultural ritual especially among the Yoruba and Hausa extraction and secondly, water is readily available and cheaper.

All the public toilet facilities in the area have their source of water from wells, boreholes and supplies

from the Lagos State Water Corporation (LSWC). Hence the operators use water for this purpose to maximize profit and minimize cost. Moreover, public toilets providing hand washing facilities helps to maintain good hygiene and safe eating on the move (UK Department for Community and Local Government, 2008) thereby reducing infections (Greed, 2005).

4-5 Users willingness to pay for Using Public Toilets in Agege

Willingness to pay is vital in ensuring proper operation of public toilet blocks. Toubkiss (2010) noted that in deprived neighborhoods, it is a financial

question to know if users are able and willing to pay. Drangert and Greed (2010) posit that, public toilet block is profitable when customers are prepared to pay. Empirical analysis shows that about 25.3% of users are willing to pay the sum of ₦20 for using sanitary facilities within the commercial areas. About 70% were willing to pay ₦40 while only 4.6% were willing to pay ₦60 for using public toilets. In residential areas about 13.5% of users are willing to pay the sum of ₦20 for toilet purposes while 79.7% are willing to pay the sum of ₦40 and only 6.8% intend to pay the sum of ₦60. The amount most users are willing to pay is ₦40; this amount is about \$0.2 or 2cents which is too meager to support a clean and hygienic toilet facility. However, it has been observed that users are more prepared to pay to use toilet blocks that are clean and well designed (Toubkiss, 2010). In other words, users are willing to pay upon conditions that the toilet operators operate under hygienic conditions devoid of odour and also ensure that they dislodge on time. Nonetheless, Toubkiss (2010) noted that tariff needs to be socially acceptable, but in order to mitigate the practice of open air defecation which presents such a high sanitary, environmental and social risk, free-for-use toilet blocks for those who are unable to pay can be justified.

5-0 Conclusion and Recommendations

In this study, it is crystal clear that over 83% of users rated the condition of public toilets in the study area as very poor; while more than 65% of respondents identified dirty environment and bad odour as the major challenges in using public toilets in Agege. Cleanliness ranked first among users' reasons for preferring private toilets in public buildings to public toilets in the area. About 80% of users identified water as the only cleansing agent in public toilets while over 70% of users are willing to pay just ₦40.0 which is about US \$0.2 for using public toilets in Agege.

From the ongoing, it is obvious that despite the inadequacy of public toilets in Agege, the available ones are dirty and unhealthy for users. This trend explains why people use open spaces when they need to relieve themselves (Drewko, 2007). The

absence of toilets forces many people to defecate and urinate in open spaces. This manner of disposing of human waste is unhygienic and poses a great threat to human health. This is the reason Drenko (3007) opines that the provision of adequate sanitary facilities is essential in order to improve the hygienic condition of cities.

This study recommends hygiene education among users and training of operators/cleaners in the arts of keeping clean and hygienic public toilets. Local Government Councils should embark on massive provision and upgrading of existing toilets. This should be backed up by Acts of parliament that would make the provision and maintenance of public toilets the business of government.

To achieving a high standard of environmental hygiene in public places, the collective efforts and commitment of the People, Private and Public (3Ps) sectors are crucial. Governments at local, state and federal levels need to work in partnership with the private sector and user communities to make the provision, operation and management of sanitation facilities sustainable in terms of management arrangements, and in terms of operational costs and revenues.

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