

CHARACTERISTICS AND MANAGEMENT OF PUBLIC TOILETS IN AGEGE, LAGOS, NIGERIA

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ABSTRACT

Defecating and urinating in open spaces is a common phenomenon in developing nations especially in Nigeria. This study looks at the prevailing condition and management of public toilets in Agege Local Government Area (LGA) of Lagos. Data were collected through the instrumentality of structured questionnaires. The study utilized The Simple random sampling technique to select operators and users in the 28 public toilets in the study area. The sample size of users was derived from periodic counts made on Mondays - serious working days in Lagos; Wednesdays – mid-week day of climaxed hustling and bustling and; Saturdays - the last day of the week for weekend shopping and social engagement. Data collection was carried out in the dry season months of February and March, on the selected days, between the hours of 12.00pm and 5.00pm - a period of hot weather when the body system must have been hot and yielding to toilet services. Ten percent (10%) of counted users (340) out of 3249 was considered in this study for homogenous characteristics. Empirical analysis shows that: available public toilets are inefficient and insufficient; lack of adequate space provision; bad odour and lack of privacy were among the numerous challenges of users. This study recommends: sanitation mapping for accessibility, performance and appropriate location of public toilets; hygiene education for users; provision of adequate direction for all existing and proposed toilets and; institutional capacity building for staffers of government agencies responsible for management of public toilets in the study area.

KEYWORDS: Public Toilets, Developing Nations, Agege, Nigeria

INTRODUCTION

Toilet is a critical link between order and disorder and between good and bad environment as the need to urinate and defecate is irrepressible (Pathak, 1995). The author established that India was faced with excretions of 900 million litres of urine and 135 million kilograms of fecal matters per day without adequate collection and disposal system. Thus 600 out of 900 million Indian people were forced to practice open defecation. The work also demonstrated how private initiative can ameliorate poor maintenance and cleanliness which municipal managed facilities are associated with, thus avoided by the public.

Similarly, the work of Ayee and Crook (2003) on Accra and Kumasi, Ghana, revealed that lack of proper coordination and maintenance of public toilets left huge environmental and health implications. The authors concluded that locating hygienic and proper management of public conveniences will promote and safeguard public health. The need for inclusive, accessible and well managed public conveniences in the United Kingdom (UK) was the focus of Hanson (2004). Greed (2006) decried the paucity of public conveniences due to closure, poor management which has resulted in disease

transmission and disparate professional subculture which has clogged suit all needs and purposes in public convenience provision in the UK.

Water and Sanitation Program (WSP, 2012) desk study in Nigeria showed that fecal contamination of the environment is the root cause of an annual average of 5,400 cases of cholera affecting Nigeria with mitigating cost estimate of US\$3.5 million (N455billion) annually. The work of Osinubi (2003) on urban poverty in Agege showed that 73% of the residents use pit toilet and 72% are either getting drinking water from well or buying it coupled with open defecation and urination, looming huge health implications abound.

Open defecation is the riskiest sanitation practice WHO/UNICEF (2011). WSP (2012) revealed that 34 million Nigerians practice open defecation. Open defecation as a result of lack or unimproved sanitary facility has considerable social costs, loss of dignity and privacy, risk of physical attack and sexual violence may not be easily valued in monetary units. In order to meet the Millennium Development Goal (MDGs) 7 on water, sanitation and sustainable hygiene by 2015, Nigeria needs to build more than 8,000,000 public conveniences (Asabia, 2009). DCLG (2008) notes that places where people live, shop, work or take recreation are more accessible and attractive when public toilets are well planned, designed, maintained, clearly signposted and available when people need to use them (including late at night). They are one of a range of amenities that help to attract a more diverse range of visitors, encouraging them to spend longer in towns and city centres and to visit again.

However, most of the studies on public conveniences were done outside Nigeria and may not represent a conclusive state of situation. This paper, therefore, seek to ascertain prevailing public conveniences conditions and management practices in an emergent mega-city of Lagos using Agege LGA as a case study. The paper also examined present management practices and proffered ways of improvement for sustainable public toilet and virile environment

REVIEW OF EMPIRICAL LITERATURE

Public Toilets and Physical Planning:

There is a lack of consensus or awareness of the crucial role of public toilets in influencing the levels of access, mobility and usability of modern cities (Greed, 2005). Most authorities do not produce any written policies, location maps, or surveys on toilet provision (Greed and Daniels, 2002). Thus public toilet provision is not being dealt with by the higher status policy departments that deal with city planning, transportation and urban policy making, as is the case in some Far East countries, for example, Japan (Miyanishi, 1996). Nor are toilets accorded the level of attention and importance given to other front-line health-related facilities such as hospitals, health centres and local clinics in terms of hygiene control (Greed, 2005).

Public toilets are extremely valuable infrastructure but regrettably, there is little strategic policy dimension, no proactive policy making for its provision and management (Greed, 2005). Department for Communities and Local Government 2008) opines that accessible provision needs to be built into the planning processes and into public or private sector working practices.

Greed (2005) concludes that with so much emphasis being put upon the importance of creating sustainable cities public toilets would be a central component of urban policy development, yet, there is no requirement that public toilet policy must be included in town plans, urban policy documents, or urban regeneration policy. Toilet provision as noted by Greed (2005) is a matter that is considered ultra-vires (that is outside the remit of statutory planning).

However, Greed (2004) opines that public toilets are an important design element in urban areas. Urban planning often emphasizes cultural and aesthetically pleasing design, hence, it is the ordinary elements of the streetscape that should deserve our attention to ensure a fair and equitable society for all. Social amenities such as public conveniences are important as they act as a base for the rest of the urban environment (Bailey, 2007). The presence of basic facilities impacts directly upon those who use them; their presence, or lack of, can have a discernible impact upon the way users interact with the built environment.

Public toilets may be seen as the missing link in creating sustainable, accessible, equal cities and society (Drangert and Greed, 2010). Public toilets are an essential local facility whose existence is important to the functioning of the city as a whole (Greed, 2005). Unfortunately, due to high land prices and competing uses, space for public toilets has not been accorded enough priority in planning (Sen and Ma, 2006)

Furthermore, Greed (2005) asserted that public toilet provision needs to be dealt with as an integral part of strategic level spatial policy making, along with, and linked to transportation planning, land use and development policies. It is important to integrating toilet provision into spatial plan-making, planning law and of course the new planning framework. For instance, in China and Japan, public toilet location and distribution is shown on their town planning documents, and the frequency of toilet provision is at a minimum of every third of a mile in many locations (Miyanishi, 1996, Sen and Ma, 2006).

Bailey (2007) opines that Urban Planners must address simple design issues such as public toilets, in order to have a marked effect on societal structure, because development and the environment exhibit a recursive relationship such that it becomes imperative to promote the quality of both of them (Olokesusi, 2011).

WSTF (2009) noted the insufficiency of public toilets in business areas such as markets and bus stations and; the poor sanitation conditions in congested urban areas without enough space for household toilets or communal latrines which puts pressure on public service provision. Extending the sewer network to these areas is a practical challenge because of their haphazard layout, high density and/or difficult geographical and environmental conditions; besides, a private connection to the sewer network is unlikely to be affordable for many poor households in African cities for several decades to come (WSTF, 2009). These growing densities exert pressure on land, making the installation of latrines more and more difficult. As a result poor households are more vulnerable to natural disasters and are often exposed to multiple disease vectors associated with poor environmental health and sanitation.

Operation and Management of Public Toilets in Developing Nations

Kläsener-Metzner (2010) opine that the aim of public toilet block management is to provide a functioning and sustainable service that responds to users' needs at an affordable price and which, at the same time, improves sanitary and environmental conditions in the area in which it is located.

In the opinion of Drangerd and Greed (2010) good public toilet management involves good maintenance and cleaning regimes, but also involves informing users about proper public toilet use. The authors believe that designing and building of a public toilet block is half the battle as the other half battle is to manage, clean, repair, maintain and operate it over many years.

Good toilets are based on good design and availability as much as they are on good management and maintenance

(Greed, 2003, Gersherson and Penner, 2009). Similarly, (Klaesener-Metzner, 2010) noted that social factors like: education of users, training of cleaners and attendants and cultural change in societal attitude towards the topic of (public) toilets are important pillars in good public toilet operation and maintenance.

Public toilets are a particular type of public space, where a very private need can be fulfilled; but lacks social control that seems to encourage a kind of behaviour, which would not be engaged in plain sight. Keeping this in mind, as well as the fact, that public toilets are an integral part of public life in metropolitan areas, they have to be treated in accordance with their specific requirements (Klaesener-Metzner, 2010).

Cleanliness has significant implications in public toilet management and patronage as people are easily put off by what they see. People are appalled when they see faecal stains or excreta, nauseating odour of urine and used tissue paper left unattended to by previous user(s) (Drangert and Greed, 2010). All this needs to be backed up by efficient and regular cleaning regimes (Greed 2006). This is important because not maintaining and cleaning the public toilets result in a proliferation of toilet-related diseases and medical conditions (Greed, 2005). In other words, a high level of toilet hygiene standard is expected in our urban centres. For instance, water for ablutionary purposes and cleansing with disinfectants should be of paramount importance (Department for Communities and Local Government, 2008)

Cleaning staff should be seen as the front-line troops in disease control as dirty toilets attract flies, lice, rats, mice, fleas, ticks and so forth which are vectors in spreading disease (Hawker et al, 2004). Public convenience manned by the right quality of staff will provide pristine condition. Therefore attendants should be well trained and remunerated fairly and valued as a key component in the local authority's toilet strategy (Greed, 2005).

Having public toilets that are clean may not only be a question of proper operation and maintenance, but also of behavioral change of their users (Greed, 2005). Krismantari (2011) reported that the biggest challenge in toilet maintenance was dealing with people's lack of knowledge as to how to use public facilities properly. Bernama (2011) concludes that people need to learn to use public toilets like their own toilets at home and; society needs to realize that for public toilets to have satisfactory levels of cleanliness, we need to imbibe a culture of cleanliness.

MATERIALS AND METHOD

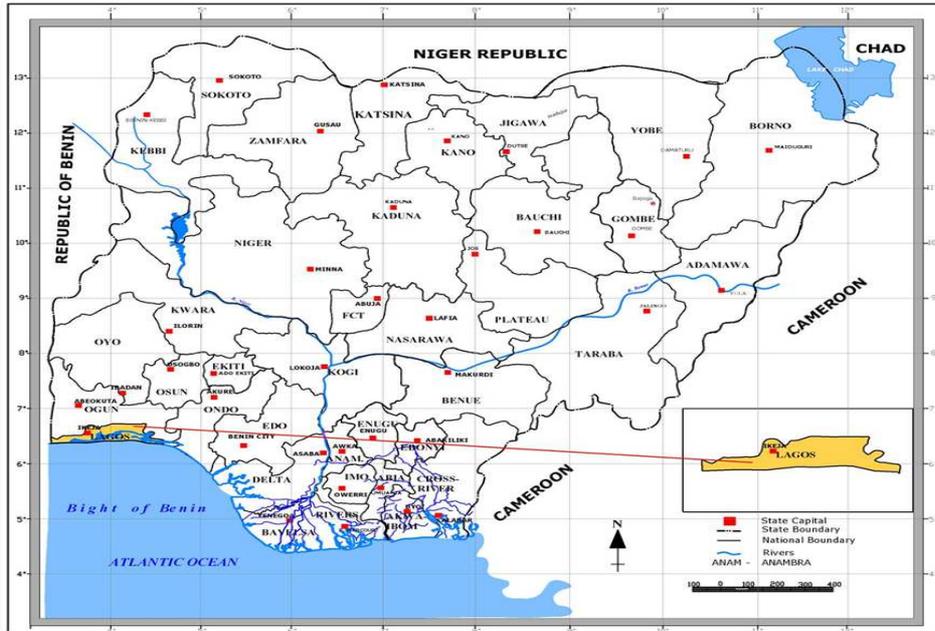
Research Locale

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

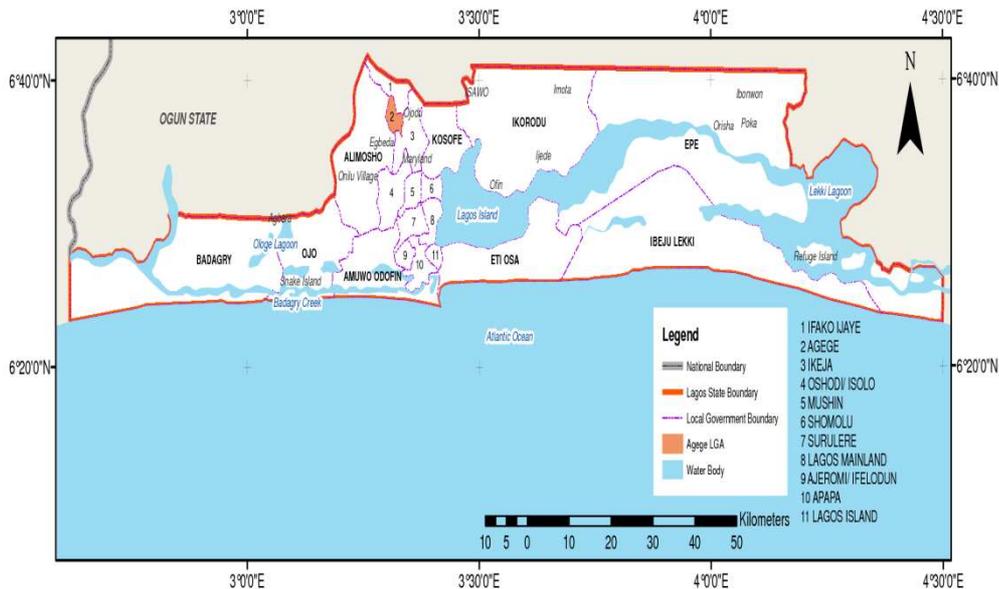
consumption (Lagos State Vision 20:2020 First Implementation 2010-2013).

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.



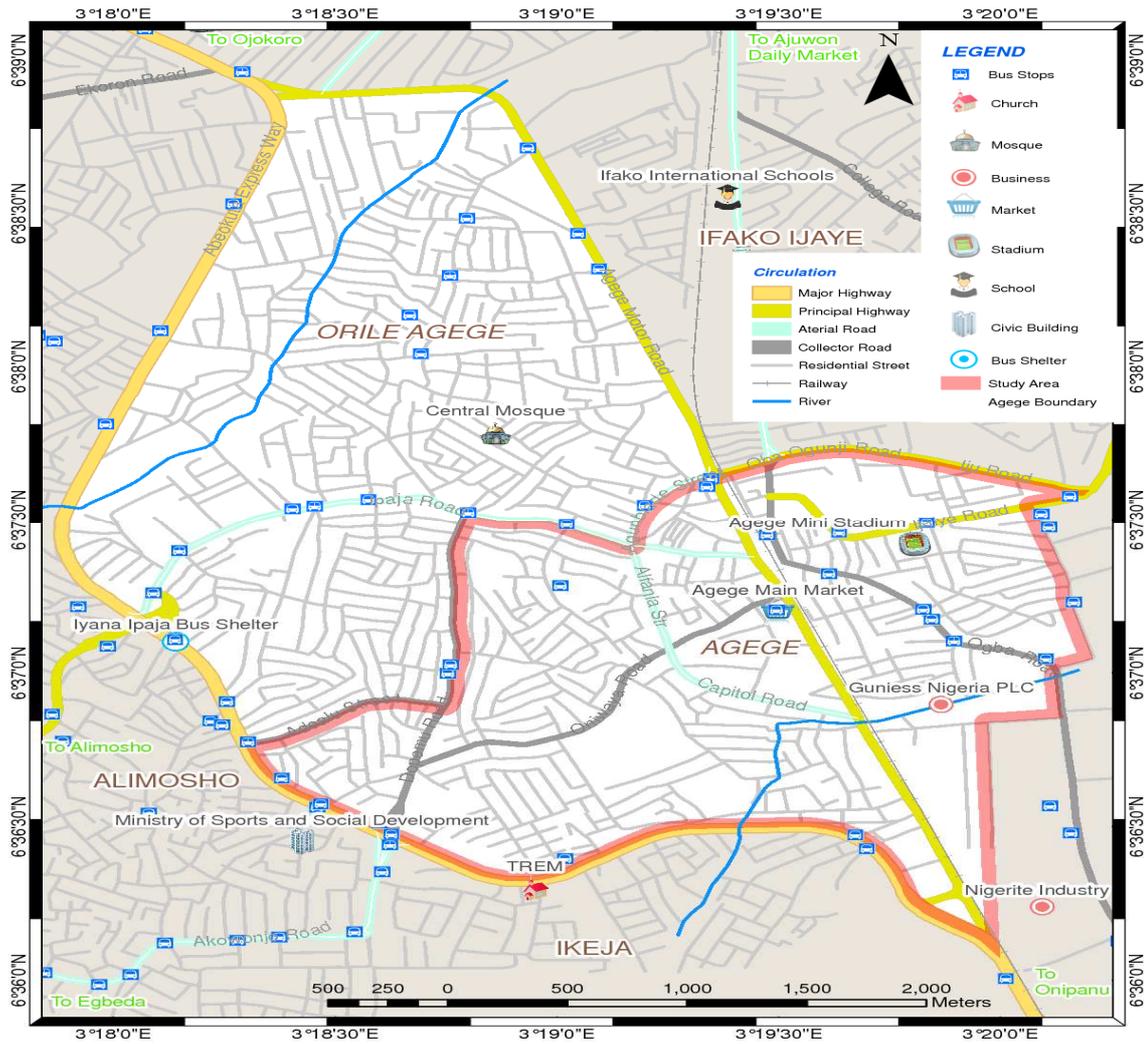
Source: Federal Government of Nigeria, 2008 (Digitized in AutoCAD by the Authors)

Figure 1: Lagos State in its National Setting



Source: Lagos State Ministry of Physical Planning and Urban Development (2006) (Reproduced in Arc Map 10 by the Authors)

Figure 2: Agege Local Government Area in its Regional Setting



Source: Ministry of Lands and Housing, Lagos (Re-produced in Arc Map 10 by the Authors)

Figure 3: Map of Agege- the Study Area

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 – serious working days; Wednesdays – mid-week day of climaxed hustling and bustling; and Saturdays – the last day of the week for stockpiling of foodstuff and a social engagement day. The study was carried out between the hours of 12.00pm and 5.00pm; this is the period when the weather must have been hot and the body system yielding to toilet services. The months of February and March are dry season months which made counting easy. 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

RESULTS AND DISCUSSIONS

Socio-Economic Characteristics of Public Toilet Users in Agege

The overall overview of sexes of respondents showed that the number of females sampled out-numbered their male counterpart in the study area. The females accounted for 52.9% while males accounted for 47.1%. This statistical evidence corroborated other researchers opinions that women are particularly in need of public toilets in public places such as markets, shopping complex and motor parks as they are the ones out and about in the day time, travelling on public transport more than men, and often accompanied by children or by elderly and disabled relatives (Cavanagh and Ware, 1991; Booth et al, 1996, Greed, 2005). Moreover, the physiology of women makes it more inconvenient for them to bear when they need to relieve themselves in the open and they need more privacy especially at the time of menstruation and post-natal discharges (Drewko, 2007). The planning implication of this finding is that more public toilets should be considered for women than men; and such toilets should be always made clean considering the physiology of women.

The age group of between 18-47 years old which accounted for 91.7% is the highest percentage of age structure among sampled users. This can be referred to as youthful adults and fall within the working age bracket. These categories of adults are capable of engaging in all manners of economic activities in a demanding hustling and bustling environment like Lagos in order to eke out a living. It is also observed that the age bracket of 18-37 which amounted to 64.5% are the

bulk of females within the menstruating and child bearing age and hence according to Drewko (2007) are conscious of their privacy especially at the time of menstruation and post-natal discharges which these sanitary facilities offer them away from their home.

Investigation into the occupational status of the users of public toilets in Agege area revealed that self-employed accounted for 27.5%, those engaged in trading activities amounted to 46.2%, while 14.1% were civil servants, 8% accounted for students and 4.3% claimed to be unemployed. Analysis indicated that 31.8% were earning less than the minimum monthly wage of ₦18,000. These sets of persons can be inferred to be the petty traders and hawker along the market area as evidenced along the railway line and along Old Abeokuta Motor road whose meager income cannot afford rented shops in these highly commercialized areas and meager income earners in poor residential areas. The majority earners earn between ₦18,000- ₦34,000 with 43.7% (143) while 23.9% (78) earn between ₦35,000 - ₦54,000 and a meager of 0.6% (2) earned between ₦55,000- ₦74,000. A closer observation reveals that there are higher income earners in commercial areas than in residential areas among public toilet users.

A look into educational status of public toilet users revealed that 8.6% had tertiary education, 26.6% attended secondary school while primary school leavers accounted for 52.6% and those with no formal education represented 12.8%. The result revealed that users with primary and no formal education status dominated the commercial areas than the residential areas. The fact that majority of respondents (65.4%) have primary education and below shows the level of informality of the study area.

Accessibility of Respondents to Public Toilet Facilities in Agege

Empirical analysis revealed that 39.5% of respondents were able to locate public toilets when the needs arises by asking people for direction while 60.5% of respondents had no problem finding these sanitary facilities because of their local knowledge. The scenario where a user would have to ask others for directions to these facilities is not ideal as most users (especially women) may find it awkward to ask for the way to a public toilet (Greed and Drangert, 2010).

The use of local knowledge by users implies that they are traders or residents around the residential areas. The absence of signage or advert in finding public toilets in these areas has both environmental and medical implications. According to Greed and Drangert (2010) some men may choose to urinate in the open instead of asking for the way to a public toilet; while women tend to hang on till they get home which may strain the bladder and cause pelvic injury.

Results on the condition of public toilets show that 10.4% of respondents rated the facilities 'very good'. Observation revealed that the very good toilets are those at Ipaja road, Akindiya and Bisi Odunsanya areas. However, 6.1%, 30.3%, 35.8% and 17.4% of respondents rated the toilets as 'good', 'fair', 'poor' and 'very poor' respectively. Observation revealed that public toilets at Ipaja Road, Akindiya and Bisi Odunsanya areas are very clean and well maintained, hence tempting for patronage. However, unprofessional operators, ill-informed users coupled with poor remuneration for managers and institutional weakness contributed to the present sorry condition of most toilets. According to Bernama (2011) people need ethics in using public toilets. In the opinion of Akhter (2013) the unhealthy and unhygienic conditions of public toilets keep the people away from using them as much as they can and 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. The above summations are in consonance with Drangert and Greed (2011) assertion that good public toilet management involves good maintenance and cleaning regime and; education

of users about proper public toilet use.

The problem of public toilet users was researched into. Results show that 31.2% of users identified dirty environment as their major problem. This trend is not ideal as corroborated by Greed (2006) who asserted that dirty environment adds to the insalubrious, unhygienic image of the public toilet and facilitate germ transmission. Another 31.2% of respondents attributed bad odor and flies nuisance as the major problem. However, WSTF (2009), notes that in order to prevent malodor, infections and diseases, public sanitation facility and its surroundings have to be kept very clean and as dry as possible; good housekeeping and maintenance are the vital elements for achieving an odorless public toilet. Sanitizer and cleaning detergents are lacking in most of the facilities. Nwachukwu (2008) noted, the only sanitizer used is kerosene. Lack of privacy which accounted for 19.9% posed concerns for users; poor customer services recorded 4.6%. The operators' human relationship is quite commendable but service delivery is poor. Respondents who were indifferent to the listed problems accounted for 13.1%. Despite all the above problems, users continued patronage of public toilets in these areas are as a result of different economic activities they engaged in and these sanitary facilities remained the only dignified means of answering nature's call. On this note, WSP-BNWP (2008) concluded that on-sites facilities in public and community toilets will continue to have an important role to play in urban areas for the foreseeable future, and their effective management is a huge challenge.

CONCLUSIONS AND RECOMMENDATIONS

Most cities in Nigeria especially in the study area experience significant and unplanned rapid urbanization. This phenomenon has occasioned inequality and informality in shelter, economic and infrastructural provision. The city migrants settled in neighbourhoods without formal arrangement for infrastructural services such as sanitation facilities that make the city comfortable and habitable. In Agege, public toilets are insufficient and inefficient. Their deteriorating states affect the wellbeing and productivity of the common citizenry. Toilet is a critical link between order and disorder and between good and bad environment. The subject of public convenience is very important because lack of excremental hygiene is a national health hazard. The need to defecate is irrepressible. A significant proportion of our population needs to use the toilet frequently, suddenly and urgently. With a large population of people on the move, public conveniences are the missing link in creating sustainable cities.

Analytical evidence has shown that public toilet can meet the needs of a range of different user groups. Such users include workers, commuters, professionals, and artisans, local residents who do not have a toilet inside their houses and even visitors or tourists. The public toilet issue has received little or no attention from planners, other professionals and governments. The assumption that potential toilet users should be catered for by owners of shop, restaurants, parks, markets, and public space owners is inappropriate. Planners should therefore be actively involved in promoting the allocation of space for public toilet blocks and make sure that town plans contains sufficient provision for public toilets.

This study therefore recommends: sanitation mapping for accessibility, performance and appropriate location of public toilets; hygiene education for hygienic public toilets; provision of adequate direction for all existing and proposed public toilets; institutional capacity building for staffers of government agencies responsible for management of public toilets; upgrading of public toilets by the providers-public and private; effective monitoring and users orientation by both state and local government agencies and; government-private sector partnership in the provision and maintenance of public toilets.

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