



Assessment of Implementation of the Environmental Sanitation Policy in the Federal Capital Territory (Fct) Abuja, Nigeria

Danbaba G¹ --- Nabegu A. B² --- Binta A³ --- Mustapha A⁴

¹Department of Geography, Ahmadu Bello University, Zaria-Nigeria

²Department of Geography, Ahmadu Bello University, Zaria-Nigeria; Department of Geography, Kano University of Science and Technology, Wudil-Nigeria

³Department of Science Education; Geography Section, Ahmadu Bello University, Zaria-Nigeria

⁴Department of Geography, Kano University of Science and Technology, Wudil- Nigeria.

Corresponding Author

ABSTRACT

Sanitation issues have become a global concern in recent decades. Most of the environmental sanitation issues and challenges are as result of rapid population growth which has not been accompanied by a corresponding increase in the delivery of essential sanitation services such as water supply, sewerage and solid waste facilities capable of enhancing environmental sanitation practices. The resultant effects of these are unsanitary and unhealthy environmental conditions that are especially prevalent in the satellite towns of the study area. The Nigerian Government recognizes that a pleasant environment, which is hazard free and promotes healthy living, is a fundamental right of all Nigerians, and that problems of poor environmental sanitation can endanger improved productivity and foster inequitable share of national economic development. It is against this background that this study assesses the implementation of sanitation policy in FCT, Abuja. The objectives of the study are to examine the institutional and funding mechanisms for environmental sanitation and determining the extent of implementing the environmental sanitation policy in FCT. Simple linear regression analysis was conducted to examine whether sanitation policy has an overall impact on the level of implementation of environmental sanitation in the study. The correlation co-efficient (R) in the matrix=0.956; indicate a positive and strong correlation between the sanitation policy and level of implementation. The proportion of variation; $R^2 = 0.1182$ with an overall effect of only 11.82%, this suggests that 88.18% of association within the model cannot be established. The combined effects indicate a significant relationship between the sanitation policy and its implementation in the study area.

Keywords: Funding mechanism, Sanitation exercise, Perception, Policy implementing, FCT Abuja, Nigeria.

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1. INTRODUCTION

Environmental sanitation is the principles and practices of effecting healthy and hygienic conditions in the environment through proper collection, removal or disposal of human excreta, household waste water, and

refuses as they impact upon people and promote public health, welfare, improve quality of life, reduce poverty and ensure a sustainable development (NWRMP, 2003; NESP, 2005; NWSP, 2004). Good sanitation includes appropriate health and hygiene awareness and behaviour, acceptable and affordable as well as sustainable services. Inadequate sanitation, however, does not just mean having limited access to a toilet or latrine, which is only one component of the sanitation value chain. Systems for treating excreta and waste water are equally important as, if not more than, the provision for latrines. The lack of adequate waste water treatment has wide spread repercussions such as environmental degradation, contamination of drinking water and a multitude of related health and livelihood impacts.

Although poverty rate are generally lower in urban areas than rural areas, today, over one billion people live in overcrowded and polluted environment that lack basic services of clean water and sanitation. It is estimated that 2 billion will be affected because city dwellers live in such conditions (UNPF, 2007). WHO, (2011) reported a positive correlation between poor sanitation and poverty on one hand; spread of diseases on the other hand, and infant mortality. Diarrhoea from bad water accounts for more than 2.5 million deaths annually. Recent epidemiology report also indicated that 150,000 to 200,000 Nigeria children die from Diarrhoea (UNICEF, 2014). In addition to the health impacts, poor sanitation has further socio-economic impacts, especially for girls and women in developing countries, who suffer from diminished productivity and missed opportunities for education (Rosemarin *et al*, 2008). In Nigeria, it is estimated that over 10 million productive days would be gained if access to sanitation and water rose to 100%. The lack of access to safe, clean, hand washing facilities, private sanitation and hygiene in schools affects education enrolment and performance. Girls are particularly affected and poor sanitation is a contributing factor in Nigeria low girls enrolment rate of 7% point behind boys. Institutional sanitation is low, particularly in school, on average there is only one toilet for every 500 students in school, ten times the standard of one for every 50 students (UNICEF, 2010).

Sanitation was an afterthought when it came to the United Nation (UN) Millennium Development Goals (MDGs), remedied two years later and included as a sub-category of goal 7; Environmental sustainability, Target 7.C aims to halve the proportion of the population without sustainable access to safe drinking water and basic sanitation by 2015. In Nigeria, this means 70% must have access by 2015. If Nigeria does not meet the MDGs sanitation target, neither Africa as a whole (United Nation Children Fund, 2010). According to the Water Supply and Sanitation Programme report (WSSP, 2012) 70 million Nigerians used unsanitary or shared latrine; 32 million have no latrine at all and defecate in the open. The report further stated that open defecation will cost Nigeria US\$1 billion per year- yet eliminating the practice would require less than 6.5 million latrines to be built and used. The report of also show regional variation in access to sanitation facilities in Nigeria. The North-East has 20.7million or 45%, North-West has 35.8 million or 61%, North-Central has 18.8 million or 46%, South- West with 27.5 million or 62%, South-South has 21 million or 55%, South-East has 16.3 million or 69% improved sanitation facilities. The above figure shows that, there is a need for more commitment and actionable policy option in other to achieve the desired target. National Bureau for Statistic (NBS) multiple indicator housing survey 2011 show 31% of Nigerians use improved sanitation while sanitation coverage has increased from 32% in 2011 to 41% in 2014 (Jonathan, 2014) a situation that shows a low performance in sanitation coverage in Nigeria.

According to [Dibie \(2000\)](#) Policy is the course of actions or principle adopted or proposed by a group in authority either in government, party, business or individuals to implement their decisions. It is also any relevant actions within a system to cope with and transform their environment taking deliberate measures which involve the commitment of the public to laws, regulations and other mechanisms concerning environmental issues. The aim of the [NESP 2005](#) is to ensure a clean and healthy environment by adopting efficient, sustainable and cost-effective strategies, so as to safeguard public health and wellbeing in line with the national development objectives ([NESP, 2005](#)). Perception is the process by which people receive information or stimuli from the environment and transform it into psychological awareness ([Ishaya and Abaje, 2008](#)).

Rapid population growth combined with increasing urbanization naturally exacerbates this phenomenon. Experts claim that more than 50% of the global population already reside in town and cities ([UNPF, 2007](#); [UN, 2012](#)). The progress towards bringing about a cleaner environment has relied on a philosophy of pollution control. This has involved sometime costly measures and controversial political decisions. As a result, in developing countries, poor communities and financially constrained enterprises have often argued that the environment is an expensive luxury that diverts resources from more productive uses. The perspective is given way to a new paradigm, stating that neglecting the environment can impose high economic and even financial costs, while many environmental benefits can in fact be achieved at low cost ([World bank, 1998](#)). Cities have associated environmental conditions that affect the quality of life as well as the perception and attitude of the inhabitants. Abuja, the Federal Capital Territory (FCT) is not exempted from its own associated sanitation challenges. Investigating this aspect advances the course of human development as they enhance formulating and implementing actionable policies that will transform the people socio-economically while improving the environmental circumstances.

The objectives of the National Environmental Sanitation Policy of 2005 is to coordinate the activities of all stakeholders involved in Environmental Sanitation and streamline their role; to strengthen the capacity of all institutions and agencies involved in Environmental Sanitation programmes; to develop healthy human habitation and reduce the incidence of Environmental Sanitation related diseases; to achieve positive attitudinal changes in people towards sound Environmental Sanitation; to encourage research and development, define local standards and establish database on Environmental Sanitation and to identify local funding mechanisms for Environmental Sanitation ([NESP,2005](#)). Hence, it is useful to understand the extent to which the 2005 National Environmental Sanitation Policy has met its objectives and whether those who were intended to benefit have done so, and as well establish a relationship between the need for an increasing demand for sanitation services and rapid urbanization as well as population growth in Abuja, hence the need for a study of this kind. The objectives of this study are to examining the institutional and funding mechanisms for environmental sanitation and determining the extent of implementing the environmental sanitation policy in FCT.

2. STUDY AREA

The Federal Capital Territory is the administrative headquarter of Nigeria. It occupies a land area of 8,000 square kilometres and is bounded on the North by Kaduna state, West by Niger state, South-East by

Nassarawa state and South-West by Kogi state. The area lies between latitude 8°25'N and 9°25'N and longitude 6° 45'E and 7°45'E of the Greenwich meridian (Dawam, 2000). The Territory is currently made up of six area councils comprising the Abuja municipal area council, Abaji, Bwari, Gwagwalada, Kwali and Kuje (FCDA, 1988) See figure 1.

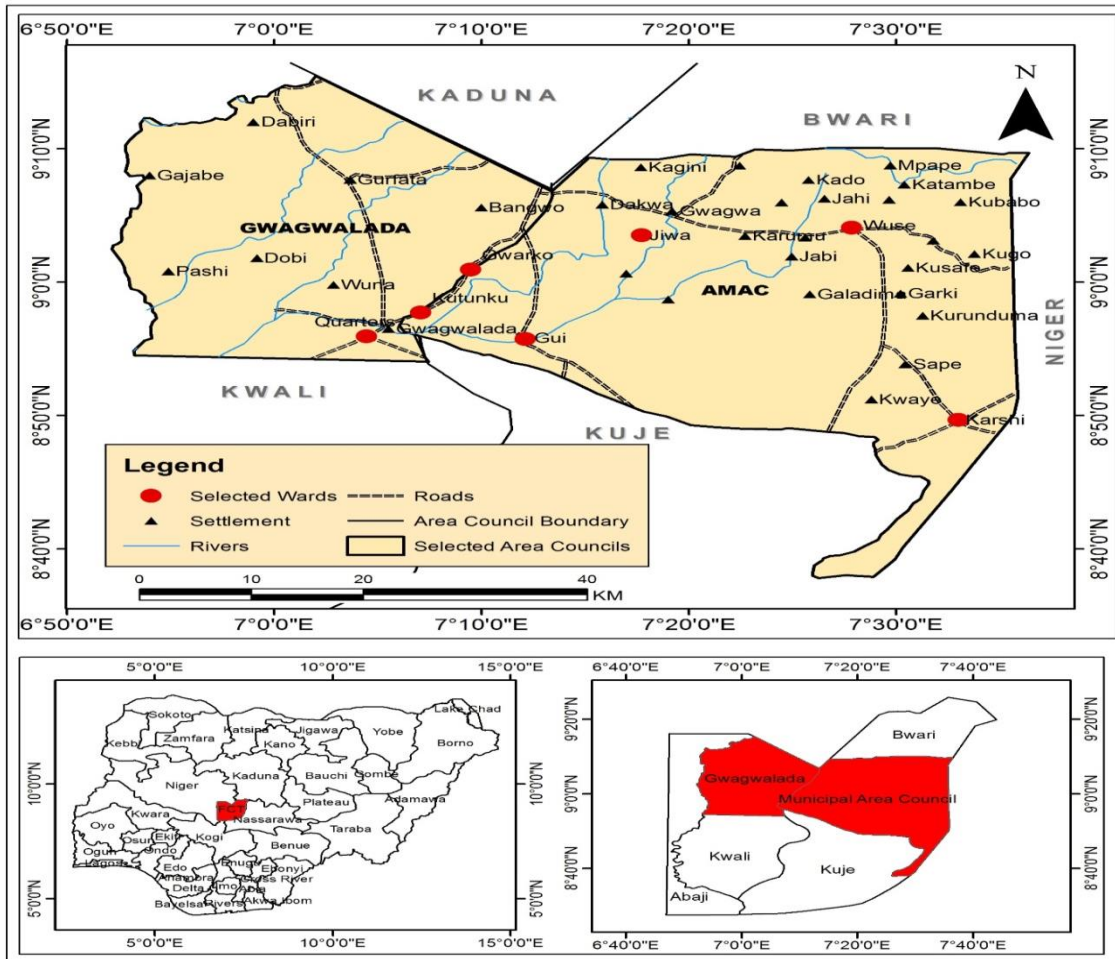


Figure-1. F.C.T. showing the study areas

Source: Adapted from administrative map of F.C.T. (2013).

The Federal Capital Territory had a population of 1,406,239 in 2006 head count (NPC, 2009) with a population growth rate of 4.0 and density of 192 people per square kilometre with daily influx of people into the territory. The population of the FCT has been increasing rapidly, over the years. In 1977, the population was 125,000. This increased to 378,671 in 1991 and in 2006 head count; it was 1,406,239 with an estimated growth rate of 4.0% per annum. Two major factors account for this growth, the natural increase and influx of low income migrants. This is particularly reflected in the increasing shortage and problems of housing, employment and provision of basic social amenities in the Territory (Mundi and Chup, 2000).

3. MATERIALS AND METHODS

The data for the study was obtained through the administration of structure questionnaire. A reconnaissance survey of the study area was used to select the two area councils (LGA's) for the study. The selection was based on the following criteria; One area council was chosen from each of the two Federal constituencies (Federal constituency 1 include Abuja Municipal Area Council (AMAC) and Bwari, Federal constituency 2 include Abaji, Gwagwalada, Kuje, and Kwali). The LGA that was chosen has the highest population in each of the federal constituencies in FCT, because of the heterogeneity of the population so as to enable a good sample of the population without bias. Therefore, the following area councils were selected; AMAC and Gwagwalada.

Systematic random sampling was employed to select the wards from each LGA's for the administration of the questionnaire. All the wards in the selected area councils were arranged alphabetically and every third ward was selected for questionnaire administration. The selected wards are Gwako, Kutunku and Quarters in Gwagwalada area council while Gui, Jiwa, Karshi and Wuse in AMAC. A purposive sampling techniques was adopted for the selection of respondents in each of the household, questionnaire was administered to the head of the household or the most senior. Yamane, (1961) sample size of a given population determination formula was used to calculate the number of questionnaire that was administered (399.8).

4. RESULT AND DISCUSSIONS

4.1. Income

Income level plays a vital role in sanitation policy implementation. Table 1, shows amount of income earned by respondents.

Table-1. Monthly incomes of respondents

| Monthly income | Residential Areas | | | | | | | | | | | | Total | % | | |
|----------------|-------------------|------------|-----------|------------|-----------|------------|-----------|-------------|-----------|-------------|-----------|-------------|------------|-------------|------------|------------|
| | Gwako | | Kutunku | | Quarters | | Gui | | Jiwa | | Karshi | | | | Wuse | |
| | % | | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 1000-10,000 | 6 | 1.5 | 4 | 1.0 | 8 | 2.0 | 13 | 3.3 | 24 | 6.0 | 7 | 1.8 | 3 | 0.8 | 65 | 16.4 |
| 11,000-25,000 | 6 | 1.5 | 9 | 2.3 | 4 | 1.0 | 20 | 5.0 | 27 | 6.8 | 13 | 3.3 | 10 | 2.5 | 89 | 22.4 |
| 30,000-45,000 | 9 | 2.3 | 5 | 1.3 | 5 | 1.3 | 19 | 4.8 | 13 | 3.3 | 30 | 7.5 | 32 | 8.0 | 113 | 28.5 |
| <50,000 | 3 | 0.8 | 6 | 1.5 | 7 | 1.8 | 20 | 5.0 | 8 | 2.0 | 22 | 5.5 | 64 | 16.1 | 130 | 32.7 |
| Total | 24 | 6.1 | 24 | 6.1 | 24 | 6.1 | 72 | 18.1 | 72 | 18.1 | 72 | 18.1 | 112 | 27.4 | 397 | 100 |

(Source: fieldwork, 2015)

The level of income is one of the factors that determine where and how people live as well as the quality of sanitation facilities in homes. The result of this investigation indicates that about 32.7% of the respondents earn between N50, 000 and above monthly incomes, and 28.5% have income between N30, 000- N45, 000 while 22.4% and 16.4% receive N11, 000- N25, 000 and N1, 000- N10, 000 respectively. This may not be unconnected with the high levels of educational attainment of most respondents which in most cases reflect in their earnings. With this and the types of occupation of the residents of these areas, it is evident that they are

mostly high income earners (Table 1). Income is pivotal to access to health facilities as high-income earners may be able to afford modern sanitation facilities like flush toilet and can equally pay for sanitation services.

4.2. Institutional and Funding Mechanism for Environmental Sanitation

The level of financing sanitation from the government has been very discouraging with unclear budgets and releases. Financing strategy for sanitation is based on the premise that individual families are solely responsible for paying for the construction of their household sanitation facilities. The 1999 constitution vested the responsibility for the establishment, equipping and funding environmental sanitation to the department of environment in local government areas while the AEPB act of 1997 that established the agency charge it with the responsibility to develop and manage sanitation facilities within its respective area and to meet sound financial objectives. The agency finds it difficult to be operationally autonomous from the FCT Administration. Rate increases may be proposed by utilities department, but are typically approved by the FCTA and political imperatives often keep rate unreasonably low (NESP, 2005).



Figure-2. Percentage Distribution of Funding Mechanism for Sanitation Services
(Source: Fieldwork, 2015)

Figure 2, Shows that 82% of the agencies in FCT are funding from budgetary allocation while 15% of the fund is from external support agencies and 3% of the fund is from organized private sector. This implies that there will be a real challenge for the policy implementation as regards careful balance between affordable tariffs for the poor and high degree of cost recovery. Also there are donor interventions like the EU and Japan International corporation Agency (JICA) currently providing funds for construction of sanitation facilities with co-funding from the AEPB and the areas council authorities and the UNICEF. Similarly, other external support agencies like UNICEF and WaterAid among others have been financing sanitation activities in their respective focal area council with counterpart funding from the council authority. Despite all these funds from government and donor alike, the study area still have a shortfall of fund to meet sanitation and millennium development goal (MDG) requirement.

In light of the shortfall which has resulted to the escalation of sanitation and hygiene related diseases and the recorded achievement so far, there is need for more funds to sector but such funds should recognize the impact of sanitation on health, poverty reduction, economic and social development which must be in line with the United Nations General Assembly declaration objectives of 2008 International Year of Sanitation (IYS) domesticated in Nigeria. This finding corroborate [wateraid \(2010\)](#) position on sanitation services financing in Enugu state LGAs which asserted that the general trend shows that actual mobilization and utilization in the local government were either lower than the anticipated or equal to the anticipated revenue. This implies that there is very low capacity in the local government area to mobilise and utilise resources.

4.3. Reasons for Not Paying for Sanitation Services

Figure 3, Shows that majority 55% are not paying for sanitation services while 45% pay for sanitation services. This implies that most people are not paying for sanitation services in the study areas which can be attributed to the following reasons.

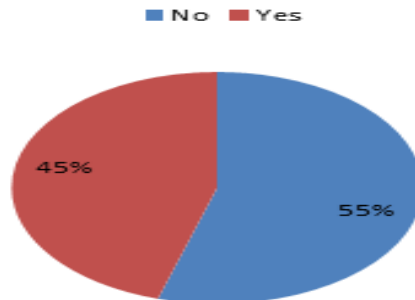


Figure-3. Percentage Distribution of Respondents Reasons for not paying for sanitation (Fieldwork, 2015)

The result in Table 2, revealed that majority of the respondent 26.9% see sanitation as social service that government must provide to citizens as a reason for not paying sanitation services while 25.9% attribute the reason for not paying to unreliable of the service by the service providers and 23.2% say low frequency of the service which is not satisfactory to them. This is so because redefining and sharpening the role of government in an area has become one of the key issues in modern development policy.

Table-2. Reasons for not Paying for Sanitation Services

| Reasons for not Paying for Sanitation | Residential Areas | | | | | | | | | | | | | | | |
|---------------------------------------|-------------------|------------|-----------|------------|------------|------------|-----------|-------------|-----------|-------------|-----------|-----------|------------|-------------|------------|------------|
| | Gwako % | | Kutunku % | | Quarters % | | Gui % | | Jiwa % | | Karshi % | | Wuse % | | Total | % |
| Unreliable of the Service | 8 | 2.0 | 6 | 1.5 | 4 | 1.0 | 25 | 6.3 | 20 | 5.0 | 14 | 3.5 | 26 | 6.5 | 103 | 25.9 |
| Low frequency of service | 4 | 1.0 | 7 | 1.8 | 2 | 0.5 | 15 | 3.8 | 17 | 4.3 | 20 | 5.0 | 27 | 6.8 | 92 | 23.2 |
| Inadequate awareness | 2 | 0.5 | 2 | 0.5 | 3 | 0.8 | 7 | 1.8 | 10 | 2.5 | 6 | 1.5 | 12 | 3.0 | 42 | 10.6 |
| Social service | 7 | 1.8 | 5 | 1.3 | 5 | 1.3 | 20 | 5.0 | 19 | 4.8 | 22 | 5.5 | 29 | 7.3 | 107 | 26.9 |
| Inadequate enforcement | 3 | 0.8 | 4 | 1.0 | 10 | 2.5 | 5 | 1.3 | 6 | 1.5 | 10 | 2.5 | 15 | 3.8 | 53 | 13.4 |
| Total | 24 | 6.1 | 24 | 6.1 | 24 | 6.1 | 72 | 18.2 | 72 | 18.1 | 72 | 18 | 109 | 27.4 | 397 | 100 |

(Source: Fieldwork, 2015)

Also sectoral budget and expenditure do provide basis for understanding the government's financial operations which will ultimately contribute to the goals of resource usage efficiency and fairly balance spread of budget allocation, service delivery and subsidies to complement gain made. Also sizable number of 13.4%

and 10.6% attributed their reasons for not paying to inadequate enforcement of sanitation regulations and inadequate public awareness respectively.

Therefore, there is need for more synergy between all stakeholders in the sanitation sector which include households, communities, government, support agencies, civil society and the organizer private sector for achievement of sanitation target. Additionally, more advocacy campaign and institutionalisation of sanitation development process including implementation, communication, mobilisation, documentation of routine checks, best practices and technologies, establishment of sustainable structures at the local level like the creation of sanitation units that will generate budget lines.

4.4. Extent of Policy Implementation

Table-3. The extent of implementing sanitation policy

| Implementing | Residential areas | | | | | | | | | | | | | | | |
|--------------|-------------------|------------|-----------|------------|-----------|------------|-----------|-------------|-----------|-------------|-----------|-------------|------------|-------------|------------|------------|
| | Gwako % | | Kutunku % | | Quarter% | | Gui % | | Jiwa % | | Karshi % | | Wuse % | | Total | % |
| Excellent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 4.0 | 16 | 4.0 |
| Good | 5 | 1.3 | 3 | 0.8 | 3 | 0.8 | 9 | 2.3 | 8 | 2.0 | 11 | 2.8 | 63 | 15.9 | 102 | 25.7 |
| Fair | 9 | 2.3 | 9 | 2.3 | 18 | 4.5 | 43 | 10.8 | 24 | 6.0 | 42 | 10.5 | 28 | 7.0 | 173 | 43.6 |
| Poor | 10 | 2.5 | 12 | 3.0 | 3 | 0.8 | 20 | 5.0 | 40 | 10.1 | 19 | 4.8 | 2 | 0.5 | 106 | 26.7 |
| Total | 24 | 6.1 | 24 | 6.1 | 24 | 6.1 | 72 | 18.1 | 72 | 18.1 | 72 | 18.1 | 109 | 27.4 | 397 | 100 |

(Source: Fieldwork, 2015)

Distribution in Table 3, shows that 43.6% of the respondents observed that the extent of implementation of environmental sanitation policy within the study area is fair, followed by 26.7% who indicated that the level of implementing of the policy is poor while 25.7% indicated that the implementation is good and 4.0% confirmed that the level of implementation is excellent. Thus even though the extent of implementation is shared across board, the number that indicated poor implementation of environmental sanitation policy is a source of concern. Implies that bad attitude to sanitation issues, lack of proper public awareness and inadequate enforcement of the policy by agencies of government are contributing factors to the poor policy implementation. In addition, policy implementation does not remain the sole reason for poor sanitation performance but lack of public awareness, poverty, improper planning, poor funding and poor implementation of hygiene programs by different Government agencies charged with the responsibility are also factors that hamper effort to scale-up sanitation access or coverage in FCT. This finding is in accordance to that of [Bourgulghon and Luiz \(2003\)](#) which posited that meeting the MDGs target, issues relating to public enlightenment on hygiene and sanitation, water and health care should be consider as the mean of redistribution or anti-poverty policy to serve as instrument for wealth creation in developing countries. The current National Environmental Sanitation Policy set milestone targets of extension of sanitation coverage to 80% of the population by 2015, with this result of majority of 43.6% coverage, it can be concluded that the extent of implementation is low and this is supported by the [National Bureau for Statistic \(NBS\) multiple](#)

indicator housing survey 2011 which show 31% use improved sanitation while sanitation coverage has increase from 32% in 2011 to 41% in 2014 a situation that show a low performance in sanitation coverage

4.5. Sanitation Exercise

The FCT monthly sanitation exercise takes place every last Saturday of every month these measures were adopted to promote cleanliness of Abuja and some of the measures include the removal of hawkers from the street, prohibition of street begging and prostitution as well as compulsory participation of residents on sanitation exercise. The monthly sanitation exercise can be adjudged as a potent tool of keeping the FCT clean

4.6. Participation in FCT Sanitation Exercise

Figure 4, revealed that 59% of the respondents are not participating in the monthly sanitation exercise in the study area while 41% participate in the exercise. This result implies that turn out of resident to monthly environmental sanitation is average and consequently affect the implementation of sanitation policy in the study area. The average extent of implementing the policy can be deduced from this, which shows that there is need to initiate pro-active steps in other to encourage the participation of residents on environmental sanitation issues.

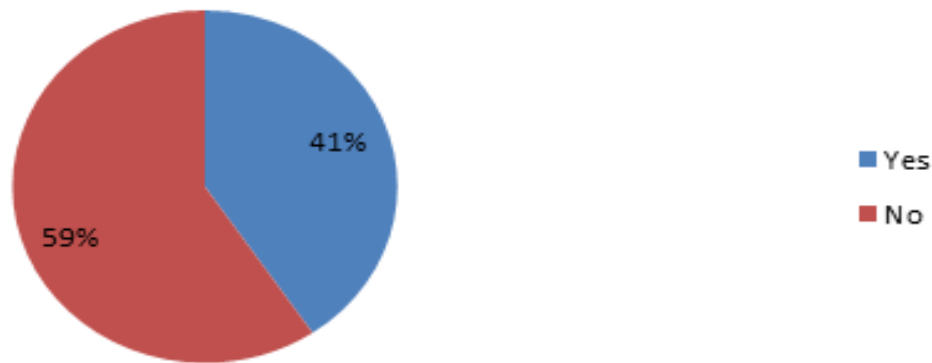


Figure-4. Percentage Distribution of Respondents that Participate in FCT Sanitary Exercise
(Source: Fieldwork, 2015)

4.7. Reasons for Participation in Sanitation Exercise

From figure 5, Shows that opinion of respondents varies on reason for participation in monthly sanitation exercise, but majority attributed their participation as result of force with 54.9% of the respondents, because vehicular movement is restricted from 8am to 10 am, while 31.7% of the respondents attributed that their participation is voluntarily and 13.4% others attributed their own participation to many reasons such as desired for aesthetic beauty of the environment, dislike for dirty and health concerns.

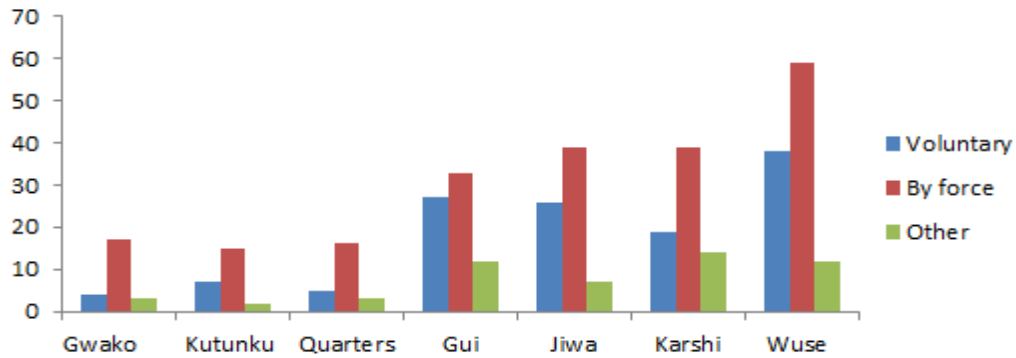


Figure-5. Distribution of Respondents Reason For Participation in Sanitation Exercise
(Source: Fieldwork, 2015)

As discussed above, in Nigeria, the use of legislation has been dominant in securing the participation of the people in environmental sanitation based on the edicts promulgated in the past military era or the laws enacted in the present democratic setting.

However, the result affirmed that most of the provisions on sanitation law favour punishment without any recourse to moral percussion in the implementation of the policy. The inefficiency in these policies is also reflected in the low level of awareness of people concerning environment sanitation and the fact that they are not people oriented and friendly in compliance. This finding corroborated the position of [Uzochukwu, \(2009\)](#) who posited that sanitation policy implementation does not remain the sole reason for poor coverage. The lack of awareness, poverty, poor planning, poor funding and poor implementation of hygiene programmes by different agencies also hamper effort to expand sanitation access. The monthly environmental sanitation exercise in FCT is a quick fix policy; this gives the impression of setting aside just one day of the month to clean the environment and argued that the practice gives an impression that you can mess up the environment for a whole month and then clean the whole dirt in one day. This finding is in line with that of [Daramola 2012](#) who asserted that Lagos state, with all its democratic credentials, still retains this military fire brigade approach long after it was introduced some years ago. When an offender is arrested, Mobile Court, hurriedly constituted lies in wait, with no pleas or defence attorney, and the offender risked a fine or prison. A similar case exists in FCT where the set up mobile courts to prosecute flouters of the monthly environmental sanitation exercise. Also, the incidences show that, apart from the fact that FCT version of environment sanitation exercise is mainly on periodic solid waste disposal and cleaning of drains, the FCT case of community participation in environmental sanitation rests more on compliance rather than willingness. However, there is no gainsaying that any environmental sanitation approach needs community involvement in order to ensure its success and effectiveness. When a policy is made, government and law making bodies should strive to equally make obedience to that policy as easy as possible and make the people cultivate a culture through the policy. As such, achievement of sustainability will result from the transition of local residents from victims of laws to agents of change.

4.8. Sanitation Policy Meet its Objective for Service to all

Figure 6, Shows that 79% of respondents confirm that the sanitation policy did not meet its objective for service to all, while 21% agree that the policy meet it objective. This is expected as it well known that sanitation infrastructures are mostly available in the Federal Capital City than the satellite town's where there is high population density. This finding is also complemented by Ishaku, Majid and Roobiah (2011) who reported that traditionally, slums, and shanty neighbourhoods receive less attention with regards to sanitation services.

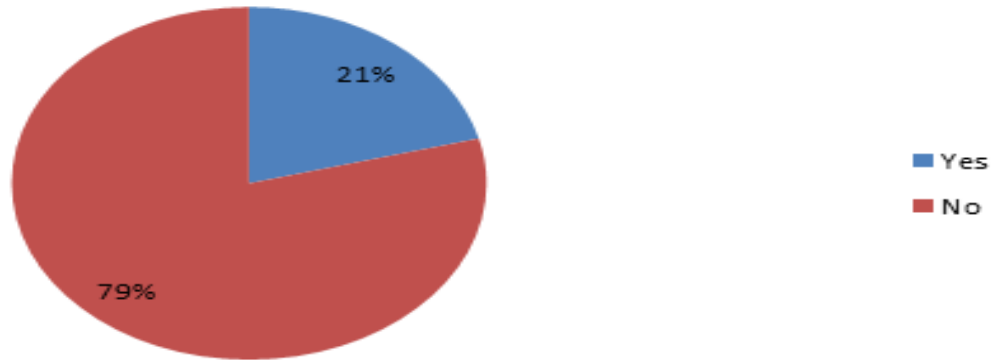


Figure-6. Percentage Distribution of Respondents to Sanitation Meet its Objectives to Service to all
(Source: Fieldwork, 2015)

4.9. Hypothesis

H₀: There is no significant relationship between the policy and the implementation level of environmental sanitation.

Simple linear regression analysis was conducted to examine whether sanitation policy has an overall impact on the level of implementation of environmental sanitation in the study area.

Table-4. Summary of linear regression statistics for the relationship between sanitation policy and its implementation

| Variables | Statistics |
|----------------|------------|
| Multiple R | 0.956 |
| R ² | 0.118 |
| Adjusted R | 0.835 |
| Observations | 28 |
| Standard Error | 0.333 |
| F | 0.020 |
| P | 0.010 |

Source: (Author' Results, 2015)

From the statistics in table 4, the regression correlation coefficient (R) in the matrix = 0.956; indicate a positive and strong correlation between the sanitation policy (predictor) and level of implementation (criterion). The statistics also revealed the proportion of variation; R² = 0.1182 with an overall effect of only 11.82%. This suggests that 88.18% of association within the model cannot be established. However, the overall model is

statistically significant; $F(7, 21) = 0.020$, $p = 0.010$; with $p < 0.05$, the combined effect indicate a significant relationship between the sanitation policy and its implementation in the study area.

The null hypothesis is therefore rejected because there is a significant relationship between the environmental sanitation policy and the level of its being implemented in the study area.

5. CONCLUSION AND RECOMMENDATION

The findings reveals that, there is a real challenge for policy implementation as regard careful balance between affordable tariffs for the poor and high degree of cost recovery. Due to the shortfall, there is need for more funds to sectors but such funds should recognise the impact of sanitation on health, poverty reduction, economic and social development.

The findings shows that the main approach towards sanitation in this regard is the weekly or monthly environmental sanitation exercise which is a quick fix policy; this gives the impression of setting aside just one day of the month to clean the environment.

The result affirmed that most of the provision on sanitation law favour punishment without any recourse to moral percussion in the implementation of the policy. Finally, policy implementation does not remain the sole reason for poor sanitation performance but lack of public awareness, poverty, improper planning, poor funding and poor implementation of hygiene programs by different government agencies charge with the responsibility are also factors that hamper effort to scale-up sanitation access or coverage in FCT.

There is need to put in place proper monitoring and evaluation systems, the introduction of economic incentives to encourage public participation, funding should be geared towards building capacity at the agencies of government especially the Area councils (LGAs) and the communities as well as civil society organizations working on sanitation issues and strengthening of collaboration and coordination with legal structure to coordinate sanitation especially at the various agencies and the area council's levels.

REFERENCES

- Bourgulghon, F. and Luiz, A. P. (2003), *The Impact of Economic Policies on Poverty and Income Distribution: Evaluation Techniques and Tools*, Oxford University Press, New York
- Dibie, R. (2000). *Understanding Public Policy in Nigeria, A twenty-first century Approach*. Lagos, Mbeyi and Associate Nigeria Ltd.
- Dawam, P. D. (2000). *The Geography of the Federal Capital Territory, Abuja*. Published by Geography Department, University of Abuja.
- Daramola, O. (2012). *Clapping with one Hand: the case of Urban Environmental Sanitation Practices in Nigeria*. Published by Journal of Applied Technology in Environmental Sanitation Vol 2 Jakarta Indonesian.
- Federal Capital Development Authority (1988). *The Development Master Plan of the Federal Capital Territory Abuja, Nigeria*.
- Ishaya, S. and Abaji, I. B. (2008). *Indigenous People Perception on Climate Change and Adaptation Strategies in Jama'a Local Government Area of Kaduna State Nigeria*. *Journal of Geography and Regional Planning*, 1(8): 138-143.
- Ishaku, H. T., Majid, M. R. and Roobiah, A. (2011), *Solid Waste Management in Jimeta-Yola, Nigeria*. Department of Urban and Regional Planning Johor Bahru, Johor, Malaysia.

- Jonathan, E. G. (2014). Presidential Declaration Speech on 11 November, 2014 in Eagle Squares Abuja Nigeria.
- Mundi, R. and Chup, C.D. (2000). The Population Dynamics and the Physical Environment in the FCT in P. D. Dawam (ed). The Geography of the Federal Capital Territory, Abuja. Published by Department of Geography, University of Abuja.
- National Water Resources Management Policy (2003). Federal Republic of Nigeria Developed by Federal Ministry of Water Resources Abuja, Nigeria.
- National Environmental Sanitation Policy (2005), Federal Republic of Nigeria Developed by Federal Ministry of Environment Abuja, Nigeria.
- National Water Sanitation Policy (2004), Federal Republic of Nigeria Developed by Federal Ministry of Water Resource Abuja, Nigeria.
- NPC (2009), Federal Republic of Nigeria Population Census, Lagos Government Press.
- National Bureau of Statistic (2011), The Multiple Indicators Survey for Housing in Nigeria, National planning commission of Nigeria.
- Rosemarin, A., Ekane, N., Caldwell, I., Kvarnstrom, E., McConville, J., Ruben, C. and Fogde, M. (2008). Pathways for Sustainable Sanitation: Achieving the Millennium Development Goals, SEI/IWA: London, UK.
- United Nation Population Fund (2007). State of the World Population: Unleashing to Potential of Urban Growth. <http://www.unfp.org/public/publications/pid408> 19 Oct. 2014.
- United Nation (2012). World Population Prospects: the 2010 Revision and World Urbanization Prospects: the 2011 Revision Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat <http://esa.un.org/unpd/wup/unup/p2kodate> 18 oct.2014.
- United Nation Children's Fund (2010). Water, Sanitation and Hygiene; Press Centre, available, <http://www.unicef.org./media/media-45481html> 8 July 2008 10:06am.
- United Nation Children's Fund (2014). The State of Environmental Sanitation in Nigeria in Commemoration of World Toilet Day in Abuja Nigeria <http://www.unicef.org.mediahtn> 20 November 2014 2:54pm.
- Uzochukwu, A. (2009), Global Sanitation Fund, Water Supply and Sanitation Collaborative Council, Sanitation Sector Status and Gap Analysis, Department of Economic, Nnamdi Azikiwe University Awka, Nigeria.
- Wateraid (2010), Water and Sanitation in Nigeria: A Briefing on National Policy and National Development Plan (NDP). Wateraid Nigeria, First Floor, Wing A Bassa Plaza CBD Abuja, Nigeria. pp: 7-12.
- World Bank (1998). Efficient, Sustainable Service for all. An OED Review of the World Bank Assistance to Water Supply and Sanitation, 26443, Operations Evaluation Department.
- World Health Organization (2011). The Top Ten Causes of Death: in the World <http://www.who.int/mediacentre/factsheets/fs310/en/index.html> 17oct.2014 4:57pm.
- WSP (2012), Turning Finance into Services for 2015 and Beyond: An AMCOW Country Status Overview. Report of the Vision 2020 National Technical Working Group on Water Supply and Sanitation, Lagos Government Press.
- Yamane, T. (1961). Statistics: An Introductory Analysis, 2nd Edition, New York, USA: Harpe and Row.

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