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ANALYSIS OF OPEN DEFECATION ALONG THE OUTER NORTHERN EXPRESSWAY (ONEX) IN KUBWA, ABUJA

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ABSTRACT

Open defecation has become a common practice in the city of Abuja. Usually the perpetrators defecate along the roads, uncompleted buildings, grassy areas and open spaces. This study thus was aimed at analysing open defecation along the Outer Northern Expressway (ONEX) in Kubwa. Kubwa is one of the satellite towns of Abuja with significant population and strong socioeconomic indices. A faecal count for 14 days was made using data collectors and 100 copies of questionnaire were administered purposively to residents around the expressway. Oral interviews were administered to heads of unions and different business groups. Results show that illiteracy level is high among the respondents; a total of 287 faecal deposits were counted amounting to 143.5kg using the shit calculator; more males practice open defecation than females and usually between 2-7pm. Other results also show that 53% of the respondents are not aware of the environmental consequences of the practice; some of the risks include reptile bites and exposure to accidents and abuse. It was recommended that the government should have the political will to fight the menace through the development of sanitary policies and development of a robust monitoring system.

Key Words: Defecation, Environment, Faeces, Kubwa, Sanitation

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INTRODUCTION

A few communities in Nigeria are open defecation free; but this number is just a drop in the ocean for a country that has 47 million people (24% of the population) still practicing open defecation (Oyegbade, 2019). About 892 million people or 12% of the global population practiced open defecation in 2016 (O'Reilly, 2016).UNICEF believes that out of the 774 local governments in Nigeria, only 13 of them in just 4 states have attained open defecation free status (UNICEF, 2010);this brings Nigeria to rank second among countries practicing open defecation and second to India.

The World Health Organisation defined open defecation as a condition where human feaces (excreta) are disposed off in the fields, forests, open bodies of water, beaches or other open spaces or disposed with solid wastes. They do so because of inaccessibility to toilets or as a result of cultural practices. The practice is very common where sanitation infrastructure and services are not available. Even when toilets are available, behaviour change practices may be required to promote their use (O'Reilly, 2016). Open defecation free is therefore a condition that describes a system that has shifted to using toilets instead of open defecation. This means using any form of latrines that prevents exposure of feaces to the environment.

In many Abuja settlements and Nigeria at large, open defecation is a taboo for which one can be punished. In these settlements, lavatories are scarce and residents who do not have any defecate in bushes, open spaces and drains. Residents throw caution to the winds and defecate anywhere they deem suitable despite of the laws and regulations against such practice. It has been observed that the drain separating the highways of Abuja has become notorious for this act. This is because the drains are deep enough to conceal the perpetrator and fact that some portions are bushy even makes it worse.

Environmentalists are worried that the trend to defecateopenly is on the increase; this may be so as residents including women and children engage in open defecation not minding the traffic of passers-bye. While some carry out this practice at night and early in the morning, others defecate during the day in the full glare without any shame or guilt. Socially, women and

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girls face shame and a loss of personal dignity and risk their safety if there is no toilet at home or work areas. Usually they will have to wait till nightfall to relieve them and in privacy (Ahmad, 2014).

This act of open defecation has high health and environmental consequences since it contaminates water and pollutes the environment.High levels of open defecation are linked to high levels of child mortality, poor nutrition, poverty and large disparities between the rich and the poor (Classen et al, 2014).It exposes women and girls to physical attacks and dangers of being bitten by reptiles and arachnids. WHO and UNICEF (2017) posit that one gram of feaces contains 10,000,000 viruses, 10,000,000 bacteria and 1,000 parasite cysts. WHO and UNICEF further harped that child feaces contains more germs than that of an adult.

Sequel to the above, the Federal Government of Nigeria has launched the Community Led Total Sanitation (CLTS) and School Led Total Sanitation (SLTS) programmes as a roadmap towards making the city of Abuja Open Defecation Free (ODF). Open defecation free is one of the strong indicators used to measure progress towards the Sustainable Development Goal number 6. Therefore assessing the risk of open defecation along the Outer Northern Expressway in relation to its environmental implications should be part of the efforts towards eliminating open defecation in Abuja, hence this study.

STUDY OBJECTIVES

1. To identify why opendefecation is common along the ONEX, Kubwa and
2. To identify the risks associated with open defecation.

STUDY AREA

The Outer NorthernExpresswaylies at the North-East (the hump) of Abuja. It was a four-lane road that was later expanded to a ten-lane road (Plate I)andcuts across several districts which include Maitama (22km from Zuba), Katampe(20km from Zuba), Gwarimpa(12km from Zuba), Dawaki (13km from Zuba), Karsana (10km from Zuba), Kubwa (9km from Zuba) and Dei-Dei (6km from Zuba) Districts; it starts from Zuba District and terminates at Asokoro District; a distance of 23km. Kubwa is the largest satellite town in West Africa (Fig 1). The

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Gbagi people are the original residents but the town has grown to a heterogeneous community as a result of government policy on relocation. The new inhabitants now are mainly civil servants, business persons, commercial motorcycle riders, artisans and entrepreneurs. Land use along the Kubwa axis of the road include farm lands, worship centers, gas stations, car display stands, residential houses, private and public offices.There are v-shaped drains on either side of the road measuring 77 x 80 x 85cm (top width x bottom width x depth)and one in the middle measuring 60 x 50cm (width x depth). These drains empty intothe Kubwa River that crosses the expressway at Kubwa.

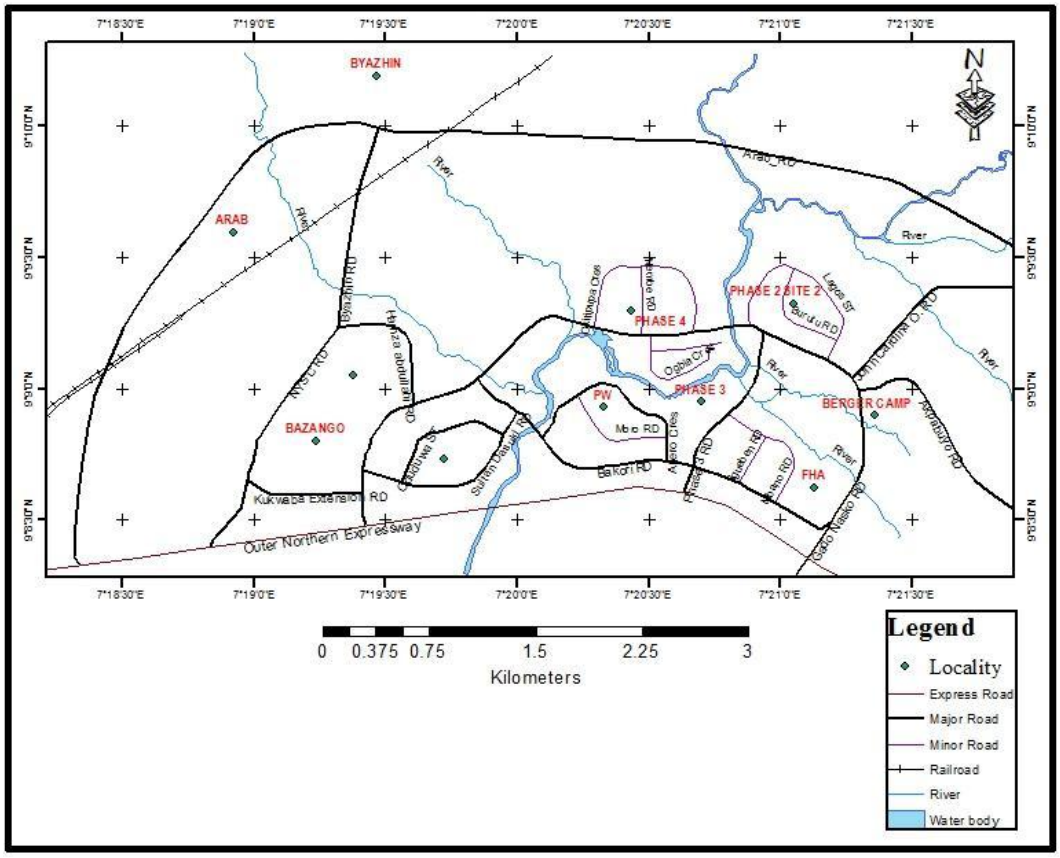

Fig 1: The Outer Northern Expressway along Kubwa District

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Plate I: Outer Northern Expressway, Abuja

Source: Fieldwork, 2019

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METHODOLOGY

A defecation/ faecal count took place for 14 days along the study express road in Kubwa District of Abuja from 6 to 11am and from 2 to 7pm. Data was collected from 8 points (Kagini, Arab, Gbazango, NYSC, NNPC, Phase 3, Phase 1 and Owner Occupier junctions) using 10 field assistants who were stationed in a staggered manner close to residential areas. It was carried out every other day to avoid suspicion and possible fear of arrest by the relevant authorities. After the first count, only freshly deposited feaces and observed defecators were counted. The data gathered was sex disaggregated and used to calculate the faecal volume using the shit calculator. The field assistants wore rubber boots, nose masks, and reflective jackets and had torch lights. Oral interviews were administered to 100 purposively selected individuals suspected to be residentsor have businesses around the spots where the counts took place. Some of the information gathered from the interview includes the socio-demographic data; environmental awareness and implications of open defecation and reasons for defecating openly.The data were presented using tables and charts.

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FINDINGS

The respondents were aged between 16 and 55 years but more fell within the 36 – 45 age bracket with a frequency of 43%. The singles have the highest frequency of 47% while the married are 31%. Trading is the occupation with the highest frequency of 54% followed by artisans with 19%. The level of education may have influenced the poor value orientation which has rubbed off on their behaviour towards sanitation and hygiene. Table 1 also shows that the respondents are not very literate as only 19% had secondary education

Table 1: Socio-demographic characteristics of Respondents

Characteristic		Number of respondents	Percentage
Sex	Male	63	63
	Female	37	37
Age	16 – 25	22	22
	26 – 35	26	26
	36 – 45	43	43
	46 - 55	09	09
Marital status	Married	31	31
	Single	47	47
	Divorced	12	12
	Separated	10	10
Occupation	Artisan	19	19
	Trading	54	54
	Vulcanizing	08	08
	Barbing	10	10
	Driving	09	09
Academic qualification	FSLC	44	44
	SSCE	19	19

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No formal education	37		37

Dan-Hassan (2019) asserts that 20% of Abuja population defecate openly. This he said can be overcome through the use of any form of latrines that prevent exposure to the environment. Table 2 shows that a total of 287 faecal deposits were made within the two weeks of count. Deposits made by unknown persons total 91, ones made by males total 150 while female deposits total 46. Data from the interviews reveal that women are more comfortable to make faecal deposits before 6 am and as from 6pm in the evening. This however makes them vulnerable to reptile and arachnid bites as well as attacks by hoodlums. Open defecation is common where sanitation infrastructure and services are not available; even when these infrastructure and services are available; behaviour change is required to promote their use.

The average faecal deposit per person is 1/2kg.This therefore implies that the 287 deposits within the 14-day count will amount to 143.5kg. If this volume for a 14-day period is multiplied by 2 to cover for a month, we can say that a total of 287kg of faecal content is deposited along the Outer Northern Expressway in Kubwa.

Table 2: Faecal count for 14 days

DAY	6 – 11am			2 – 7pm		
	Unknown	Male	Female	Unknown	Male	Female
1	3	3	0	3	5	3
2	2	2	0	3	5	5
3	4	4	0	1	7	1
4	3	5	0	4	6	2
5	1	6	0	6	7	3
6	3	4	0	3	4	2
7	2	5	0	5	8	5

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8	3	4	0	2	7	3
9	3	3	0	5	6	3
10	3	6	0	4	8	3
11	2	3	0	3	9	5
12	4	2	0	7	7	2
13	2	4	0	4	8	5
14	3	3	0	3	9	4
Total	**38**	**54**	**0**	**53**	**96**	**46**

Source: Fieldwork, 2019

WHY PEOPLE DEFECATE ALONG THE EXPRESS WAY

Several reasons were raised why people defecate along the AYA – Zuba expressway. Figure 2 shows that dirty lavatories is one of them as raised by 17%, others are no lavatories, traditional beliefs, emergency and the absence of shame as represented by 21, 15, 18 and 12% respectively.

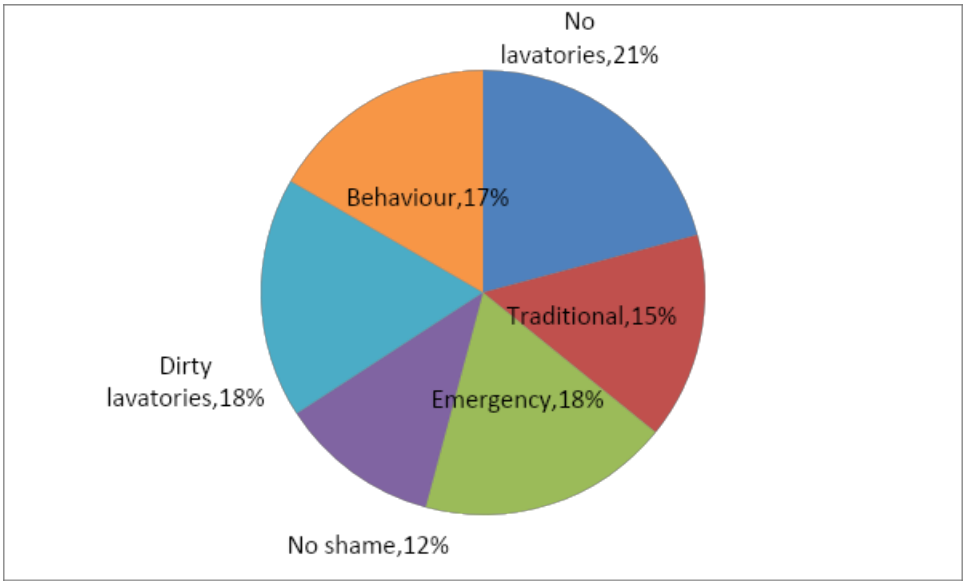

Fig 2: Reasons for Defecating along the study Expressway

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Another is the difficulty to imbibe behaviour change as pointed by 17% of the respondents. Some of these reasons like the traditional belief of the Gbagy tribe are worrisome. Traditionally the Gbagypeople have a beliefthat human excreta is sacred and as such the excreta from one should not mix with that of another; it therefore becomes a taboo when excreta from different persons get mixed up. This is a key reason why they abhor the use of pit toilets.The Key informants believe that poor knowledge of the consequences of open defecation is a key driver to this unhealthy practice.

RISKS ASSOCIATED WITH DEFECATING ALONG THE EXPRESS WAY

Four major risks were identified as seen in fig 3. These are reptile and arachnid attacks with 47% frequency, accidents of different sorts, 27%, abuse 19% and fear of arrest 7%. The expressway is wide enough with heavy and articulated vehicles plying it at a very high speed. Occasionally, fatal accidents occur involving heavy vehicles and killing passers bye; thus the risk of a defecator being killed is there. The Abuja Environmental Protection Board which is saddled with the responsibility of keeping Abuja clean has failed. One of the ways it could employ to keep Abuja clean is to arrest and prosecute offenders; unfortunately it has not been so.

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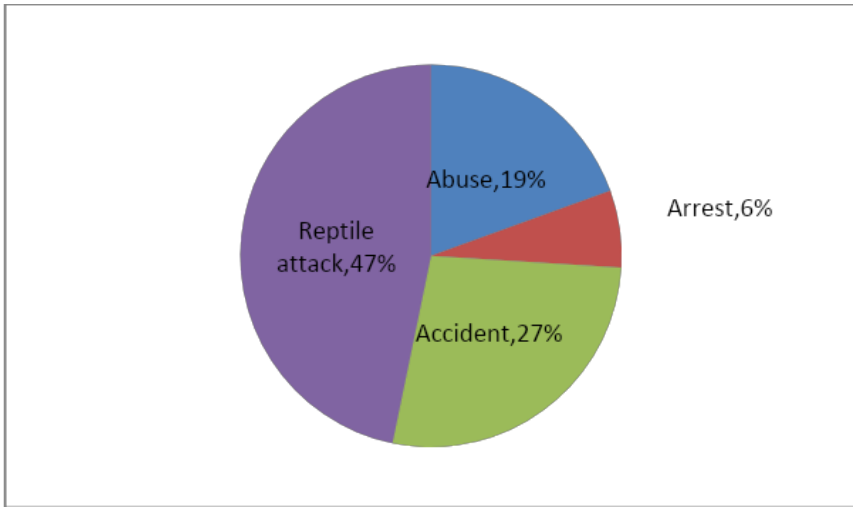

Fig 3: Risks Associated with Open Defecation along the study Express way

AWARENESS OF THE ENVIRONMENTAL IMPLICATIONS

Figure 4 shows that majority of the respondents are not aware of the environmental implications of Open Defecation. Open defecation can pollute the environment and cause health problems. Perception on open defecation is highly influenced by the knowledge level of a person (Asare, Gyan and Denteh, 2019).A major social impact indicator of environmental awareness with respect to open defecation is attitudinal change (sanitation and consistent use of lavatories). This lack of awareness is pivotal to the increase in trend in open defecation along the ONEX in Kubwa.

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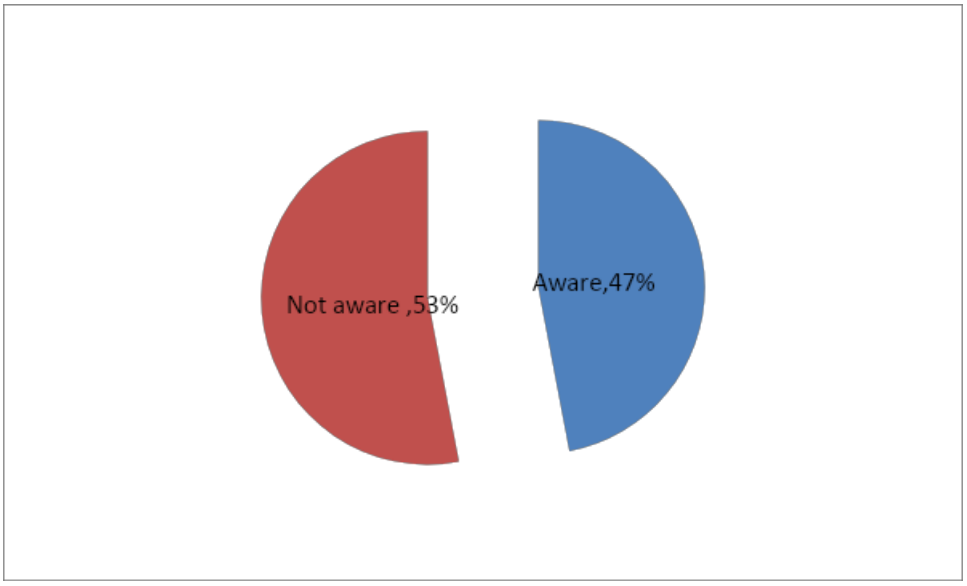

Fig 4: Awareness of the Environmental Implications of Open Defecation

IMPLICATION OF OPEN DEFECATION ON THE HEALTH OF THE PEOPLE

Some infections and ailments have been associated with open defecation practices. These are typhoid, diarrhea, intestinal worms, intestinal pains, vomiting, amoeba and ringworms. Most if not all of these occur when faecal contents come in contact with water which is consumed or used for some domestic purposes (Njoroge, 2008). Dan-Hassan (2019) believes that diarrhea is the second largest killer of children; this supported by the World Health Organisation who claims that 88% of diarrheal cases are attributable to poor excreta management. Children weakened by frequent diarrhea are more vulnerable to malnutrition and other infections like pneumonia.

Worm infestation is one of the causes of Iron Deficiency Anaemia among adolescent girls and young mothers leading to low birth weight babies and high neo-natal and maternal mortality (Dan-Hassan, 2019). Without a safe environment, large investments in improving the nutritional status of children lose impact.

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CONCLUSION

This study has clearly revealed that the level of open defecation along the Outer Northern Expressway in Kubwa is significant and worrisome with 143.5kg of faecal deposits in two weeks. It also shows that open defecation practice in the study area is as a result of poor knowledge of the environmental and health consequences and also cultural beliefs. It shows again that lack of public toilet facilities at strategic points encourages this practice. The media and non-governmental organisations have not done much in terms of sanitation advocacy. However some risks are associated with the heinous practice like reptile bite and vulnerability to abuse and accidents. The following recommendations are therefore made: the government should have the political will to fight the menace through the development of sanitary policies and development of a robust monitoring system, the private sector should be mobilized to invest in "Water, sanitation and hygiene (WASH)" programmes, the media should get involved in mass sensitization of the populace towards keying into sanitation programmes.

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REFERENCE

Ahmad, J. (2014). How to eliminate open defecation by 2030, *devex*, retrieved August, 2019

Asare, W., Gyan, R., and Denteh, S.N. (2019). Knowledge and Perception of tertiary Students on Open Defecation (Case in the Tamale Metropolis of Ghana) *International Journal of Social, Politics and Humanities,* Vol 2(1) pp 149 - 162

Classen, T., Boisson, S.,Routray, P.,Torondel, B., and Bell, M. (2014). Effectiveness of a rural sanitation programme on diarrhea, soil-transmitted helminth infection, and child malnutrition in Odisha, India, *The Lancet Global Health*, 2(11) pp 645-653

Dan-Hassan, M. A. (2019). *Making Nigeria Open Defecation Free*, a paper presented at the inauguration of the 5th National Chairman, The Nigerian Institution of Water Engineers, Abuja

Njoroge, R. (2008). CLTS Training in Tharaka DA

O'Reilly, K. (2016). From toilet insecurity to toilet security: creating safe sanitation for women and girls, *Wiley Interdisciplinary Reviews: Water,* 3(1): 19-24

Oyegbade, H. (2019). Dealing with Open Defecation in Nigeria, www.sunnewsonline.org, retrieved on the 15th of August, 2019

UNICEF (2010). Annual Report 2010, New York: UNICEF/NYHG2010

UNICEF (2017). Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines: in WASH data reports, Geneva

WHO and UNICEF (2014) Progress on drinking water and sanitation update