



## OPEN DEFECATION AND HUMAN SECURITY CHALLENGES: ASSESSING THE SITUATION IN BAMAHU, GHANA

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### Abstract

*A recent report by the United Nations Development Programme indicates that the best approach to global insecurity is to promote human security which includes; economic security, food security, health security and environmental security. Apparently, in Ghana certain practices including open defecation challenge the promotion and achievement of human security, a vital core of all humans. It is against this background, that Bamahu, a University community in the Wa Municipality of Upper West Region of Ghana was purposely selected in a case study designed with the view of exploring the factors influencing the practice of open defecation and how that practice affects human security of the people. A quota sampling technique was employed in selecting 84 respondents. In addition, three (3) key informants were purposely selected. Data gathered through interviews revealed that open defecation is principally influenced by lack of toilet facilities and affects three core areas of human security condition of the people in the study locality namely; economic security (increase in family expenses and halting of economic activities), health security (contraction of diseases) and environmental security (air pollution and bad eyesight) with the worst affected being health security (98%). This paper recommends that stakeholders under Wa Municipal Assembly should ensure that the available public toilets in Bamahu community are hygienically maintained. Besides, student hostel operators and landlord/landladies should be encouraged to construct more toilet facilities in their homes.*

**Keywords:** *Bamahu, Open Defecation, Economic Security, Environmental Security; Health Security*

### Introduction

Jolly and Ray (2006) asserted that insecurity which traditionally was construed as a military threat to national sovereignty has in recent times been broadened to include human security which focuses on threats to economic security, food security, health security and environmental security among others. Buttressing the point, the United Nations Communications Group (UNCG, 2017), noted that the Sustainable Development Goals (SDGs), also known as the Global Goals, aim to address the problems relating to hunger, health, education, gender equality, water and sanitation, energy, economic growth, industry, innovation and infrastructure, inequalities, cities and communities, consumption and production, climate change, natural resources, and peace and justice.

Apparently, in Ghana certain practices including open defecation challenge the promotion and achievement of human security. Selby (2010) noted that the act of defecating indiscriminately in bushes, valleys and ridges is practiced in some places of Ghana in broad day light or at night, despite the numerous hygiene educational campaigns. Buttressing the point, Musa's (2015) study revealed that one major challenge confronting Wa Municipality of which Bamahu, (the study locality) is a suburb is the act of open defecation. The World Health Organization, Country Office, Ghana (2014) for instance, reported that the cholera outbreak in Ghana that started in June 2014 affected a total of 28,955 people with 243 deaths (case fatality rate of 0.8%) from 130 out of the 216 districts in all the 10

regions of the country as at December, 2014. The report further stated that the potential for spread of cholera was high considering the continuous existence of risk factors such as; inadequate supply of safe water, poor food and personal hygiene and poor liquid and solid waste disposal.

Against this background, this study sought to examine the factors which influence open defecation and how such a practice threatens the human security of the people in the study locality. This study is considered critical in that the findings will enable the government and other stakeholders to fashion out pragmatic policies, programmes and projects targeting open defecation, with the view of improving the human security situation of the people, especially, university communities in Ghana which have experienced the influx of people in recent times.

### **Open defecation and human security threats**

Open defecation negatively affects people and the environment. The social costs of open defecation is too huge to be borne by the people, and nations cannot risk practicing such behaviour. Open defecation undermines environmental security through pollution of water bodies (Rajgire, 2013). Water is an important element for human survival and must be free from pathogenic microorganisms. Worldwide infectious diseases such as waterborne diseases are the number one killer of children under five years old and more people die from unsafe water annually than from all forms of violence (United Nations Children's Fund (UNICEF) (2008). UNICEF (2008) stated that deteriorating water quality threatens the global gains made in improving access to drinking water. It further indicates that water related diseases caused by insufficient safe water supplies coupled with poor sanitation and hygiene cause 3.4 million deaths a year, mostly among children.

Open defecation challenges economic security of nations. Environmental uncleanliness has been identified as a phenomenon which saps the resources of a country. Oxford Economics (2016) noted that poor sanitation costs the global economy US\$222.9 billion in 2015. In the view of UNICEF (2018), 892 million people worldwide still practice open

defecation. It further stated that to successfully end open defecation, at least 60 million people need to stop the practice each year between 2015 and 2030. The World Bank (2012) indicated that Ghana's economy loses 420 million Ghanaian Cedis each year (US\$290 million, 1.6 percent of GDP) due to poor sanitation. This shows how poor sanitation and contaminated food can badly sap the resources of nations.

Various factors which influence open defecation in Ghana for instance have been outlined in the literature. According to Ameyaw and Odame (2017), Musa (2015) and O'Connell (2014) among others, open defecation is attributed to long walking distances from the facility, inadequate toilet facility, behaviour and culture of the people, the cost involved as user fee as well as filth of the toilet environment. Oduro-Kwarteng (2009) revealed that most houses have been built without provision for the construction of improved household toilets. Therefore, availability of space for the construction of household toilets is a problem for some households, thus giving rise to the habit of open defecation. These findings suggest that the factors influencing the practice of open defecation are many and varied. It therefore requires the adoption of a holistic approach by various stakeholders in the society.

### **Methodology**

#### ***Study locality***

Bamahu community is located in the Wa Municipality in the Upper West Region. The community lies in the southern part of Wa, with the Wa- Kumasi road dividing the community into two halves. The distance from Wa to Bamahu is about 6 kilometers. Bamahu community shares borders with Danko community to the north and Kunfabiala to the south. The community shares in the climate and vegetation that prevail in the Wa Municipality. According to the 2010 Population and Housing Census, the total population of Bamahu community stood at 3448 (GSS, 2012). Out of the total number, 1,978 were males while 1,470 were females. The report put the total number of houses in Bamahu at 248, with 511 households. Average household size was recorded as 6.7 (GSS, 2012). However, the

projected population of Bamahu community for 2018 was 4068 (GSS, 2017). The religious faiths most practiced in the Bamahu community are Christianity, Islam and African Traditional Religion. Before the establishment of the University for Development Studies (UDS), Wa Campus, the people of Bamahu were predominantly farmers. The people cultivated millet to earn income for their survival. Currently, women mostly travel outside the community to transport foodstuffs and vegetables such as tomatoes and onions among others to sell to students and other new settlers. New stores and kiosks have also taken over the retailing business providing household needs such as milk, sardine, sugar and other tinned products. The youth of Bamahu have also taken to secretarial services such as photocopying and printing with students being their main customers. The strategic location of Bamahu in terms of its proximity to UDS has led to the influx of students to the locality (Field Report, 2018). Like many communities in the Wa Municipality, one major problem confronting the community is open defecation (Musa, 2015). Understanding the causes of the phenomenon of open defecation and its ramifications on human security is considered critical especially, in present times where the global tension emanating from socio-economic forces such as; assurance of basic income for individuals, availability and accessibility to food, access to clean water and safe environment, and protection from diseases and unhealthy lifestyles have been a pre-occupation of nations (Jolly & Ray, 2006).

### ***Research design***

Research design is the type of inquiry that provides specific direction for procedures in a research or study (Creswell, 2009). The researchers employed the qualitative case study design. This helped the researchers to obtain in-depth information from the respondents concerning the factors influencing open defecation and how such a practice affects human security condition of the people in the community.

### ***Target population***

The study targeted residents both indigenes (natives) and students residing in the community. Besides,

other informants knowledgeable in health and sanitation from the Health Ministry and personnel from Environmental Protection Agency of Wa Municipal Assembly were also targeted.

### ***Selection of Research Participants***

Leedy and Ormrod (2010) contend that in purposive sampling, we choose people or a group or those who represent perspective on an issue. Thus, the purposive sampling technique is simply a technique in which the researcher intentionally selects people who have in-depth knowledge on the topic under study. The purposive sampling technique was used by the researchers to select three key informants, one each from Environmental Protection Agency, the Health Clinic at Bamahu and a local government official (assemblyman). The quota sampling technique was used to select 24 students (12 each from a hostel with and without toilet facilities) and 60 indigenes of Bamahu. The selection criteria were that; (1) the respondent should be either a male or female of and above 18 years and (2) a student or indigene residing in Bamahu. Thus, the study made use of a combined sample size of 87 respondents. Quota sampling was required because, as noted by Sarantakos (2005), it is appropriate if it becomes difficult in coming by the respondents and sample size through simple random or systematic sampling techniques, and or in the absence of an already existing sampling frame. The technique was also used with the objective of getting a cross-sectional view from the various respondents. All willing, available and qualified respondents became part of the study sample.

### ***Data sources and data collection methods***

Both primary and secondary sources of information were utilised in this study. Primary information was generated by the researchers through interviews with both the key informants, the indigenes and the student respondents. The interview process was aided by interview guides. Similarly, an audio recording device was used to record the voices of the respondents where appropriate with their consent. Individual interviews were conducted between February, 2018 and April, 2018. One field assistant knowledgeable in the local dialect was employed

who helped in transcribing information from the indigenous respondents. Primary sources of information were complemented by secondary information generated through critical review of relevant works of others including; websites, books and journal articles.

**Data Analysis**

Given the nature and objectives of the study, data gathered was analysed descriptively around the thematic areas of the study and categorised into themes. Data gathered with the aid of the audio

recording device was first transcribed and carefully edited where possible. The names of the respondents were not captured under the results and discussions section of the study. This has been done to ensure that the respondents and their views at all times remained anonymous and confidential.

**Results and Discussions**

**Biographic characteristics of the respondents**

This aspect of the study looks at the biographic characteristics of the respondents and the results had been captured by Table 1 below.

**Table 1. Biographic characteristics of the respondents**

Variable	Category of people	Total			
		UDS Students	Natives		
		Frequency	Frequency	Total	Percentage
Age	Below 30 but above 18	24	25	49	58%
	31 -41	0	15	15	18%
	41-50	0	13	13	15%
	51-60	0	2	2	2%
	61+	0	5	5	6%
Sex	Male	15	35	50	60%
	Female	9	25	34	40%
Educational level	No education	0	17	17	20%
	Primary	0	10	10	12%
	J H S	0	10	10	12%
	S H S	0	16	16	19%
	Tertiary	24	7	31	37%
Marital status	Single	24	17	41	49%
	Marriage	0	43	43	51%
Religion	Christianity	16	20	36	43%
	Islam	8	40	48	57%

Source: Field Study 2018

Table 1 showed that none of the respondents was below 18 years. The findings point out that at least the respondents were fairly matured to understand the nature of the problem necessitating the study.

Out of the 84 respondents, 50 (60%) were males whilst 34 (40%) were females. Even though the male respondents were more than the females, the results as presented are indicative that the views of both

males and females were fairly represented. In terms of educational status, it was found that 17 of the respondents, all natives had no formal education. Thirty-one (31) respondents had tertiary education, whilst 10 each had attained Primary and Senior High School (SHS) education. Sixteen of the respondents had attained Senior High School (SHS) education. In aggregate, 67 respondents representing 80% were

found to have attained some level of formal education which could influence their analysis and decisions in terms of the problem at stake.

The study further revealed that all the student respondents and 17 of the natives were single bringing the total number of single respondents to 41. Forty-three (43) respondents however, were married. This analysis was considered important as the rate of open defecation could be influenced by family size in relation to availability of toilet facilities. The researchers however, did not find out as to the number of children in each family.

Religious beliefs and practices could influence the act of open defecation. It was therefore necessary to find out the religious affiliations of the respondents.

The study revealed that 36 respondents were Christians whilst 48 were Moslems. The results showed that Christians dominated the student respondents, whilst Moslems dominated the native respondents. According to GSS (2012), the two most dominant religious faiths in Ghana are Christianity and Islam. This findings from the study community are not different.

***Contributory factors to open defecation***

The study sought the respondents’ opinions on the factors that influence open defecation in the study community. Results derived as the main contributory factors are presented in Table 2.

**Table 2: *Contributory factors to open defecation***

Factors	Students (N=24)		Natives (N=60)		Total (N=84)	
	No.	%	No.	%	No.	%
Lack of toilet facilities	12	50.0	58	96.7	70	83.3
Lack of finance	4	16.7	2	3.3	6	7.1
Lack of enforcement on sanitation policies	0	0.0	7	11.7	7	8.3
Ignorance of legislation on open defecation	3	12.5	10	16.7	13	15.5

Source: *Field Study, 2018*

Results of the data showed that lack of toilet facility was identified by both students and natives as a contributory factor to open defecation. The findings show that 12 students representing 50% and 58 natives representing 96.7% indicated that absence or lack of toilet facilities in the community is the reason why people resort to open defecation. The results show that in all 70 respondents (83.3%) resort to the bush as a place of convenience. Confirming the assertion that lack of toilet facilities is a contributory factor to open defecation, a student respondent opined that:

*‘Where you have no lavatory facilities, you can do your own thing at any place available’* (Respondent Interview, 2018).

In addition, a key informant expressed a similar view when he said during an interview that:

*‘Inadequate toilet facilities at the individual homes and the public place is the main push*

*factor that compel many of the people to defecate anywhere they find available in this community.* (Key Informant Interview, February, 2018).

This finding is in agreement with Ghana Statistical Service’s (2012) Report which noted that majority of households (77.9%) in Upper West Region do not have access to toilet facilities and this impels them to resort to open defecation in the communities thereby fouling the environment. The finding also supports Musa’s (2015) earlier observation that inadequate toilet facility was one of the major causes of open defecation in the Wa Municipality. This result is not surprising since a study by Oduro-Kwarteng (2009) revealed that most households lack toilet facilities paving way for the practice of open defecation. This finding is significant since it suggests that policy intervention targeting open defecation in Bamahu should primarily be directed towards the construction of more private and public toilet facilities. A policy implication of this finding is that

development control officers and planners should institute measures that will make it obligatory for estate developers to include toilet facilities in their buildings.

Other striking contributory factors identified by respondents were lack of finance, lack of enforcement of open defecation policies, and ignorance of the legislation on open defecation. As shown in Table 2, four students (16.7%) and two natives (3.3%) attributed open defecation to lack of finance to pay for the usage of public toilet. A similar sentiment was expressed by a key informant during an interview when he said:

*Economic hardship, as in the cost involved in constructing a toilet in their houses and the token money they have to pay in order to utilize public toilets are another area of concern’.*

(A key Informant Interview, February, 2018).

This finding corroborates a study by Ameyaw and Odame (2017) who found that the cost involved as user fee by public toilet facilities managers contributes to open defecation. A further seven respondents linked open defecation to lack of enforcement on sanitation policies, whilst 13 respondents asserted open defecation is influenced by ignorance of legislation on open defecation. A key informant expresses:

*Ignorance of the effects of open defecation is another issue we have to address in this community. Most people lack knowledge on the effects of open defecation’* (A key Informant Interview, February, 2018).

### **Open defecation and human security challenges**

This study sought the opinions of the respondents on how open defecation challenges the human security condition in the study locality. The study revealed that open defecation affects three main areas of human security conditions of the people namely health, economic and environment as captured by Table 3 below.

**Table 3: Respondents views on the effects of open defecation (Multiple response)**

Dimension	Category of people				Total	
	Students		Natives		Frequency	Percentage
	Frequency	Percentage	Frequency	Percentage		
Health	24	100	58	96.7	82	97.6
Economic	10	41.7	12	20.0	22	26.2
Environment	2	8.3	6	10.0	8	9.5

Source: Field Study, March, 2018

### **Health security**

The results from Table 3 show that 82 of the respondents (97.6%) were of the view that open defecation has a major effect on the health security of the people. The respondents mentioned diseases such as typhoid (54 respondents) and cholera (62 respondents) as being among some health hazards of open defecation. One student respondent remarked:

*‘If you get cholera and typhoid, it means you have eaten human faeces carried out by*

*flies’* (An Interviewee’s Remark, March, 2018).

Corroborating what was said by the respondents, this is what a key informant said:

*‘At this age of Ghana people still defecate openly. The cholera outbreak in 2014 and 2015 mostly in Accra and some parts of the country has not taught us any lesson. As*

*long as we continue defecating openly, we will be afflicted by cholera and typhoid, a sign that we have been eating faeces contaminated foods. We are trying all our best to educate the people about the dangers of open defecation on our health and the need to make their environment clean. Yet, you could see a number of people defecating openly. You are a researcher and your institution could also help check such menace by educating the public and your own students’* (Key informant Interview, April, 2018).

The researchers could not get any statistical information from the Bamahu Clinic as to the nature and levels of diseases confronting the study community. Nonetheless, the findings suggest that the respondents generally have extensive knowledge about the health implications of open defecation on the people. This probably could be attributed to the occasional health education given to the people through the radio and health talks by health practitioners which is quite encouraging. The problem however, as the study has identified is that, there is a wide gap between the knowledge of the respondents about the effects of open defecation and the actual practice of open defecation. As indicated earlier, the study found that though 82 (98%) of the respondents linked cholera and typhoid diseases to open defecation, yet only 14 (16.7%) in reality do not practice open defecation.

### ***Economic security***

As espoused by Jolly and Ray (2006), economic security concerns itself with an assurance of basic income for individuals. The study revealed that open defecation has economic implications in that it increases the family expenditure and truncates economic activities as expressed by 22 respondents. The respondents indicated that the economic effect is felt especially when people fall sick and they have to attend hospital in order to get treatment, buy drugs and stop their daily economic activities for the period of the sickness or in order to give care to the sick. A respondent remarked:

*‘When you or any of your close relatives is sick, you cannot embark on any economic activities. You have no other option than to halt your daily economic activities. This affects the income and productivity of the family’* (Respondent Remarks, 2018).

The views of the respondents were not different from that of the key informants. This is what a key informant said:

*‘In terms of finances, open defecation affects both the people and the government. Attempt to deal with outbreaks of diseases call for the purchase of more drugs, redeployment of health practitioners and an expansion of health facilities. All these increase government budget. Open defecation is an affront to the environment. The air is polluted and most parts of communities badly smell especially with the onset of the rains. We need a concerted effort to help halt this negative practice’* (Key Informant Interview, March, 2018).

### ***Environmental security***

According to Global Environment Facility (2018), the scope of security and insecurity is by no means limited to violent conflict or its absence but includes the roots of sustainable livelihoods, health, and well-being. As gathered from the study, eight respondents opined that open defecation pollutes the environment. In an interview in February, 2018, a respondent exclaimed:

*‘Open defecation is a bad practice. It pollutes the air and even the water bodies. It makes the environment smell awful and unattractive. We need to do what we can to minimize it if not to stop the practice’*

The information gathered from the respondents was in line with the view of the key informants. This is what one of them expressed:

*‘It is not a good scene to sight openly someone’s faeces. The environment smells and loses its natural beauty. This practice is not the best and should not be encouraged’* (Key Informant Interview, March, 2018).

## Conclusion and Recommendations

This study has revealed that open defecation as practiced by some members of the study community is influenced by lack of toilet facilities, inadequate finance, lack of enforcement on policy on sanitation, and ignorance. The study found that open defecation affects three core areas of human security of the study community namely; economic, health and environmental security, an affront to the promotion and achievement of human security.

The study recommends that:

- Stakeholders under Wa Municipal Assembly should ensure that the available public toilets in Bamahu community are hygienically maintained. Besides, student hostel operators and landlord/landladies should be encouraged to construct more toilet facilities in their homes. Any hostel operator who defaults in putting up toilet facilities should have his/her hostel closed by the appropriate authorities. This also calls for periodic monitoring of residents by the officials of Environmental Protection Agency and other bodies responsible for environmental safety to ensure that operators of hostels and landlords/ladies comply with the safety byelaws of the country.
- It is also recommended that laws governing environmental safety should be re-enforced amidst periodic education on open defecation and its effects to the individuals and the government. The various religious bodies and other NGOs could help in carrying out this educational message.

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