

Research Article

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Sanitation Facilities, Services and Education in North-Eastern Nigeria

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ABSTRACT

A sanitation facility, Services and Education greatly influences the sanitary situation of every society. They are the most important instruments for combating bad sanitary situation in every society. Educated people are very much aware of the health implication of a bad sanitary environment as such they will keep themselves and their environments very clean using available sanitation facilities and services. Around the world now people have much higher education than ever before. In the space of almost two decades, global literacy has risen from 73 to 83 percent with school enrolment increasing faster. In Northeastern Nigeria, it is the same scenario, but a lot needs to be done, because of the level of education of the people that live in the rural areas where culture and tradition still play a great role in their lives and sanitation facilities and services are limited. While some beliefs are important, some beliefs can be damaging in terms of sanitation.

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Received: April 24, 2023; **Accepted:** May 04, 2023; **Published:** May 08, 2023**Introduction**

Sanitation in developing countries is a very pressing issue. Globally, almost 2.5 billion people live without proper sanitation and almost 1 billion of these people practice open defecation. Poor sanitation not only leads to the rapid spread of disease, but can also affect education and the environment. Though improper sanitation affects both rural and urban communities, open defecation is more common in rural communities, often resulting from traditional beliefs or a lack of education. While traditional beliefs are important, some beliefs can be damaging in terms of sanitation. For instance, some communities in Madagascar believe that using an outhouse can cause an expecting mother to lose her child. There is also a common belief that defecating in the ground is disrespectful to those who have died and been buried. These myths create an environment where poor sanitation practices like open defecation are commonplace. Unfortunately, these practices can lead to contaminated food and water sources. Consuming contaminated food or water causes high rates of bacterial diarrhea, which is the second largest killer of children under the age of five in the world. To fight the effects of beliefs that lead to poor sanitation in developing countries, education programs must be implemented. In fact, in addition to avoiding deaths due to diarrhea, communities benefit in multiple ways from hygiene and sanitation education. According to the World Health Organization, when educated about the link between sanitation, hygiene, health and economic development, communities have a higher demand for improved sanitation facilities. Additionally, when children are not sick from consuming contaminated food or water, they are able to attend school more often and focus on their studies. For children in developing countries, every moment of schooling can have a large impact. It has even been found that one additional year of schooling can increase a woman's income potential by up to 20 percent in developing countries. Yet in order for education effectively improve sanitation in developing countries, it must

be implemented correctly. Education has the largest impact on children, and they can take hygiene practices home and show them to their family members. When children eventually grow up to be parents, they can raise their children with the hygiene practices instilled in them.

Education is even possible in illiterate communities. One organization offers sanitation education in the form of puppet shows. Global sanitation has a lot of room for improvement, but by implementing simple yet effective hygiene and sanitation education programs, the world could take an important step forward in the fight against not only poor sanitation in developing countries, but global poverty as a whole as well.

– Weston Northrop

Research Objectives

The main objective is to determine how availability of sanitation facilities, services and education affect the sanitary condition of the people of Northeastern Nigeria.

Significance of the Study

Level of education and availability of sanitation facilities and services of the people greatly affects their sanitary condition which in turn affects their health and wealth. It is important to find out the availability of sanitation facilities and services and how educated are the people of Northeastern Nigeria about these facilities which affects their health and wealth.

Literature Review

Worldwide, one in five children between the ages of 10 and 15 are out of school (UNESCO, 2010). Girls in developing countries disproportionately drop out of school, particularly around puberty. Addressing gender biases in educational attainment is central to reducing gender inequality, as education provides opportunities

for upward economic mobility. Gender equality in education and economic opportunity has also been associated with a broad range of social and economic benefits (Duflo, 2012) [1]. The Millennium Development Goals reflected a call from the international policy community to expand access to education and to address a gender gap in enrollment that is particularly pronounced among adolescents. In considering the reasons for high dropout rates, particularly among pubescent-age girls, some have directed attention toward the absence of sanitation facilities in many schools worldwide (Fentiman, Hall and Bundy, 1999; Burgers, 2000; WHO, 2005; Kirk and Sommer, 2006; Raising Clean Hands, 2010) [2]. One concern is that the absence of school latrines may cause girls to miss school on their menstruation days and then drop out from school (Lidonde, 2004), though the number of missed school days coinciding with menstruation may not be substantively large (Mensch and Lloyd, 1998; Oster and Thornton, 2011) [3]. A broader concern is that the absence of school latrines potentially exposes pubescent-age girls to every-day threats of verbal and physical harassment at school, with potential consequences for female educational attainment. While girls menstruate for only a few days each month, pubescent age girls are impacted every day by the physical, emotional, and societal changes associated with the onset of menstruation. Further, a narrow focus on menstruation might neglect other factors that also impact boys and younger

girls, obscuring a broader link between school sanitation and education. In a review of this literature, Bird thistle et al. (2011) [1]. highlights the absence of a quantitative empirical evaluation of a large-scale latrine-construction initiative. School sanitation has traditionally been neglected; indeed, even the standard school supported by the World Bank need not include sanitation facilities. There is an increasing policy emphasis on school sanitation, however, and these ideas have manifested in the recent Indian government's campaign slogan of "toilets before temples" and recent Swachh Bharat: Swachh Vidyalaya ("Clean India: Clean Schools") initiative to provide universal access to sex-specific latrines in all government schools.

Sanitation substantially increases enrollment of pubescent-age girls but predominately when providing sex-specific school latrines. Unisex sanitation facilities benefit younger girls and boys of all ages.

Methodology

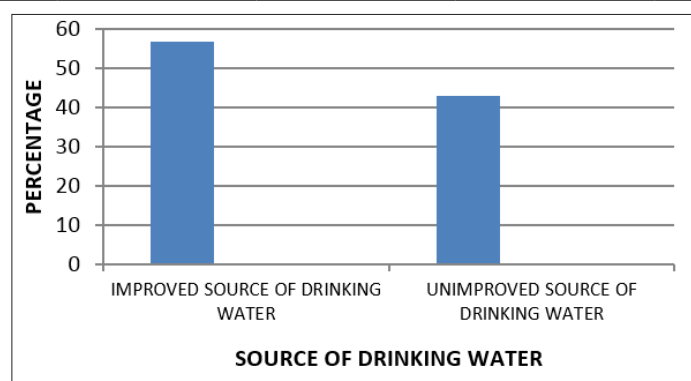
Study Design

In this study, secondary data collected from National Population housing characteristics and household population survey 2018 is used. Statistical methods and techniques are used in analyzing the data and results are presented in tables and figures.

Results and Discussion

Table I: Percentage Distribution of De Jure Population by Drinking Water Source, Basic Drinking Water Service and Limited Drinking Water Service in the Zone

State	Improved Source of Drinking Water	Unimproved Source of Drinking Water	Total	Percentage with Basic Drinking Water Source	Percentage with Limited Drinking Water	Number of Persons
Adamawa	51.6	48.4	100.0	51.5	0.0	4,118
Bauchi	62.5	37.5	100.0	62.3	0.2	7,245
Borno	71.5	28.5	100.0	64.8	5.3	6,790
Gombe	43.0	57.0	100.0	36.9	6.1	3,593
Taraba	44.6	55.4	100.0	41.4	3.2	3,905
Yobe	69.0	31.0	10.0	63.0	6.0	6,952
ZONE	57.0	43.0	100.0	53.3	3.5	32,603



Respondents were asked whether they have improved or unimproved source of drinking water. The results are presented in "Table 1" and "figure 1". About fifty seven percent (57%) reported that they have improved source of drinking water, and about forty-three percent (43%) reported that they don't have improved source of drinking water. It is clear that high percentage of the respondents have improved sources of drinking water.

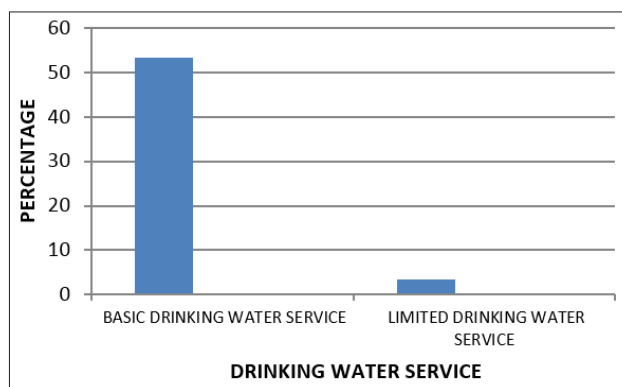


Figure 2: Percentage Distribution of De Jure Population by Drinking Water Services in the Zone

Table 2: Percentage distribution of de jure population by type of sanitation, percentage of de jure population with basic sanitation service, and percentage with limited sanitation service, according to state

State	Improved sanitation facility	Unimproved sanitation facility	Open defecation	Total	Percentage with basic sanitation service	Percentage with limited sanitation service	Number of Persons
Adamawa	76.5	0.8	22.8	100.0	56.0	20.4	4,118
Bauchi	30.9	59.8	9.3	100.0	26.8	4.1	7,245
Borno	66.1	24.6	9.3	100.0	49.3	16.8	6,790
Gombe	73.5	13.6	12.9	100.0	67.8	5.7	3,593
Taraba	51.7	26.2	22.1	100.0	42.3	9.4	3,905
Yobe	30.8	15.2	54.0	100.0	28.0	2.8	6,952
Zone	59.9	23.4	21.7	100.0	45.0	9.9	32,603

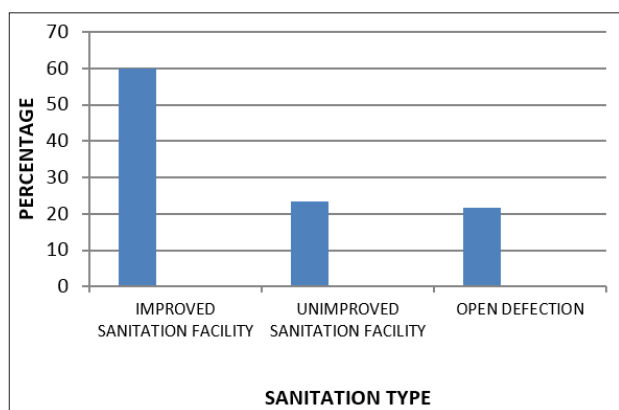


Figure 3: Percentage Distribution of De Jure Population by Type of Sanitation in the Zone

Respondents were asked whether they have improved sanitation facility like modern toilet, unimproved sanitation facility or open defecation i.e. going to the bush. The results are presented in “Table 2” and “figure 3”. Averagely about sixty percent (60%) reported that they have improved sanitation facility, and about Twenty-three percent (23%) reported that they don’t have improved sanitation facility while only about twenty-two percent (22%) reported that they use open defecation. It can be observed that majority of the respondents use improved sanitation facility and it may be due to high level of awareness and education

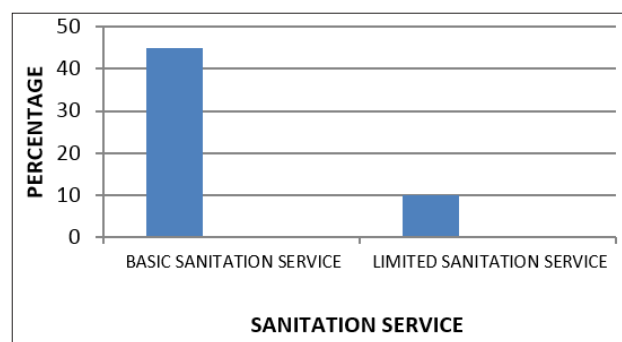


Figure 4: Percentage Distribution of De Jure Population by Sanitation Service in the Zone

Respondents were asked whether they have basic sanitation service or limited sanitation service. The results are presented in “Table 2” and “figure 4”. About forty five percent (45%) reported that they have basic sanitation service, and about ten percent (10%) reported that they have limited sanitation service. It can be observed that majority of the respondents have basic sanitation service and these may be due to improved level of education

Conclusion

Based on the findings above, there is an improvement in health and the sanitary conditions of the people of Northeastern Nigeria by having high percentage of improved drinking water, basic drinking water services, improved sanitation facilities and services due to the improved level of education of the people. The data in the tables and the charts above have clearly indicated that, but there is still a wide gap to be filled by educating the people on the importance of clean environment to their health and wealth and providing more of these facilities and services.

Recommendation

Sequel to the finding in this study, it is clear that the results have indicated an improved sanitary condition in Northeastern Nigeria due to improved level of education and availability of sanitation facilities and services. That notwithstanding still a lot needs to be done by providing these facilities and services to the people and educating the people on the importance of clean environment and the implication of a dirty environment. Many people still leave, sleep and ease themselves in an open space hence the need for educating them. Various governments (Federal, State, Local), Non-Governmental Organizations (NGO) and individual can contribute greatly in this regard.

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3. Nigeria Demographic and Health Survey (NDHS) (2018) <https://dhsprogram.com/pubs/pdf/FR359/FR359.pdf>. sanitation-in-developing-countries.

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