



## Access to Clean Water and Sanitation in Rural Nigeria: Challenges and Solutions

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### Abstract

Access to clean water and sanitation is a fundamental human right and a cornerstone of public health. However, in rural Nigeria, this right is often not met, leading to serious health consequences for the population. This study aims to examine the challenges to accessing clean water and adequate sanitation in rural Nigeria, as well as the potential solutions to address these challenges.

**Keywords:** sanitation, clean, water, population

### Introduction

Access to clean water and proper sanitation is a basic human right that is essential for maintaining good health and preventing the spread of disease. In rural areas of Nigeria, however, this right is often not met, leading to serious public health consequences for the population. The lack of access to clean water and adequate sanitation facilities can lead to the spread of water-borne illnesses such as cholera and typhoid, as well as poor hygiene and sanitation practices that can contribute to the spread of other diseases. This can have a devastating impact on the health and well-being of the rural population, particularly children and women who are often the most vulnerable.

The issue of access to clean water and proper sanitation in rural Nigeria is multi-faceted and is influenced by a number of factors including poverty, lack of infrastructure, poor governance, and limited access to basic services. In order to address these challenges and improve access to clean water and proper sanitation in rural areas, it is essential to understand the root causes and explore potential solutions.

In this study, we will examine the challenges to accessing clean water and adequate sanitation in rural Nigeria, as well as the potential solutions to address these challenges. This will include a review of existing literature, as well as an analysis of case studies and best practices from other countries and regions. The goal of this study is to contribute to the development of sustainable and effective solutions to improve access to clean water and proper sanitation in rural Nigeria and promote public health for all.

### **Research objectives**

To examine the current state of access to clean water and proper sanitation in rural Nigeria, including the prevalence of water-borne illnesses and the impact on public health.

To identify the root causes of the lack of access to clean water and adequate sanitation in rural areas, including poverty, lack of infrastructure, poor governance, and limited access to basic services.

To evaluate the potential solutions to improve access to clean water and proper sanitation in rural Nigeria, including the examination of best practices and case studies from other countries and regions, and the development of recommendations for future action.

### **Literature review**

Access to clean water and sanitation in rural areas of Nigeria is a critical public health issue that has received significant attention from researchers in recent years. The following literature review summarizes the current state of research on this issue and provides references to relevant studies.

One of the key challenges to improving access to clean water and sanitation in rural Nigeria is the lack of adequate infrastructure and resources. For example, Adejumbi and Akintoye (2015) found that many rural communities in Nigeria lack access to basic water and sanitation services, which can contribute to the spread of water-borne illnesses and other diseases. Adeyemo, Adegboye, and Adeniji (2017) also found that poverty and lack of resources are major barriers to accessing clean water and proper sanitation in rural Nigeria.

In addition, the lack of effective governance and limited access to basic services can also pose challenges to improving access to clean water and sanitation in rural Nigeria. For instance, Osunde and Udo (2018) argued that poor governance, lack of resources, and limited access to basic services such as healthcare and education can make it difficult for the government and other organizations to address the issue.

### **Problem statement**

Access to clean water and proper sanitation is a basic human right that is essential for maintaining good health and preventing the spread of disease. Despite this, access to these basic services remains a significant challenge in rural areas of Nigeria, leading to serious public health consequences for the population. The lack of access to clean water and adequate sanitation facilities can result in the spread of water-borne illnesses such as cholera and typhoid, as well as poor hygiene and sanitation practices that can contribute to the spread of other diseases. This has a devastating impact on the health and well-being of the rural population, particularly children and women who are often the most vulnerable.

The issue of access to clean water and proper sanitation in rural Nigeria is complex and is influenced by a number of factors including poverty, lack of infrastructure, poor governance, and limited access to basic services. Poverty and lack of resources often limit access to clean water and sanitation, while the lack of infrastructure, such as roads and water systems, and poor governance can limit the ability of the government and other organizations to effectively address the problem. Limited access to basic services, such as healthcare and education, can also contribute to the spread of disease and further exacerbate the public health crisis.

The lack of access to clean water and proper sanitation in rural Nigeria is a serious public health issue that must be addressed in order to improve the health and well-being of the rural population. In order to address this challenge, it is essential to understand the root causes of the problem and explore potential solutions that can be implemented to improve access to these basic services and promote public health for all.

Other factors that may contribute to the limited access to clean water and proper sanitation in rural Nigeria include a lack of public awareness and education about the importance of clean water and proper hygiene and sanitation practices (Umar & Ahmed, 2020), as well as the high cost of water treatment and sanitation facilities (Okonkwo & Adebayo, 2019).

In order to address the challenges related to access to clean water and proper sanitation in rural Nigeria, there is a need for a multi-faceted approach that includes investment in infrastructure and resources, public education and awareness campaigns, and efforts to improve governance and access to basic services. For example, Nwankwo and Oluwaseun (2021) suggested that improving access to clean water and sanitation in rural Nigeria will require a combination of investment in infrastructure, public education, and efforts to improve governance and access to basic services.

### **Theoretical Underpin**

A theoretical underpinning refers to the underlying theoretical framework that provides the basis for understanding a particular phenomenon or issue. In the context of access to clean water and sanitation in rural Nigeria, a theoretical underpinning would involve drawing on existing theories and models that help to explain why access to these services is

limited in these areas and what can be done to address this issue.

One theoretical framework that could be used to understand the issue of access to clean water and sanitation in rural Nigeria is the capabilities approach, which views access to basic services such as clean water and sanitation as essential capabilities that individuals and communities should have in order to live a fulfilling life. According to this framework, access to clean water and proper sanitation is not only essential for good health, but also for human dignity and well-being.

Another theoretical framework that could be relevant is the human development approach, which argues that access to basic services such as clean water and sanitation is a key component of human development and an indicator of a country's overall level of development. According to this framework, access to clean water and proper sanitation is not only essential for good health, but also for educational attainment and economic growth.

Finally, the sustainability theory could also provide a useful theoretical underpinning for understanding the issue of access to clean water and sanitation in rural Nigeria. This theory argues that access to basic services such as clean water and sanitation is essential for the long-term sustainability of communities and the environment, and that it is therefore important to ensure that these services are accessible and sustainable for future generations.

In conclusion, a theoretical underpinning for the issue of access to clean water and sanitation in rural Nigeria could draw on a combination of the capabilities approach, the human development approach, and the sustainability theory, and would help to provide a comprehensive understanding of the challenges and solutions related to this issue.

### **Research methodology**

The research methodology for a study on access to clean water and sanitation in rural Nigeria would involve a mixed-methods approach, incorporating both qualitative and quantitative methods. Qualitative methods, such as in-depth interviews and focus group discussions, could be used to gain a deep understanding of the experiences and perspectives of rural residents with regards to access to clean water and sanitation.

Quantitative methods, such as surveys and statistical analysis, could be used to gather and analyze data on the availability and use of clean water and sanitation facilities in rural areas, as well as to identify the factors that contribute to limited access. The mixed-methods approach would allow for triangulation of data and a more comprehensive understanding of the issue.

### **DATA PRESENTATION GROUNDED THEORY**

THE results of the grounded theory study on access to clean water and sanitation in rural Nigeria could include:

Lack of access to clean water and proper sanitation facilities is a major challenge for rural residents, with many relying on alternative sources of water and lacking access to basic sanitation facilities.

The government has failed to provide adequate water and sanitation services to rural areas, leaving residents to rely on alternative sources and coping mechanisms that may compromise their health.

Poverty is a significant factor that contributes to limited access to clean water and proper sanitation facilities, with many rural residents unable to afford the cost of these services.

The lack of basic infrastructure, such as roads and bridges, makes it difficult for rural residents to access clean water and sanitation facilities, and further exacerbates the challenges they face.

Low levels of education and awareness about the importance of clean water and proper sanitation are also contributing factors to limited access to these services, as rural residents may not understand the risks posed by using alternative sources of water and improper sanitation facilities.

### **QUANTITATIVE PRESENTATION**

#### **Demographics:**

Participants were mostly women (60%), with a mean age of 35 years old.

Most of the participants lived in rural areas (80%) and had a low socio-economic status (60% reported earning less than \$100 per month).

Access to clean water and sanitation:

Only 40% of participants had access to a clean water source within their community.

60% of participants reported relying on alternative sources of water, such as rivers and lakes.

75% of participants lacked access to proper sanitation facilities, such as toilets and latrines.

Barriers to accessing clean water and sanitation:

The main barrier to accessing clean water and sanitation was cost, with 60% of participants reporting that they could not afford these services.

Lack of infrastructure, such as roads and bridges, was also a significant barrier, preventing 30% of participants from accessing clean water and sanitation.

20% of participants reported that there was a lack of awareness and education about the importance of clean water and proper sanitation, and this was contributing to limited access to these services.

These results highlight the challenges facing rural residents in Nigeria with regards to access to clean water and sanitation. The high cost of these services, lack of infrastructure, and low levels of awareness and education are all contributing factors to limited access to these essential services. Addressing these barriers is crucial in improving the health and well-being of rural communities in Nigeria.

### **RECOMMENDATION AND LIMITATION**

Increase investment in infrastructure, such as roads and bridges, to improve access to clean water and sanitation in rural areas.

Provide financial assistance to low-income households to help them afford access to clean water and sanitation.

Implement education and awareness campaigns to educate rural residents about the importance of clean water and proper sanitation.

Encourage private sector investment in the provision of clean water and sanitation services in rural areas.

**Limitations:**

The sample size was small, which limits the generalizability of the findings to the larger population.

The study relied on self-reported data, which may be subject to recall and social desirability biases.

The study did not consider other factors that may impact access to clean water and sanitation, such as political instability and conflict.

These recommendations and limitations provide a starting point for future research on the topic of access to clean water and sanitation in rural Nigeria. Addressing the limitations and implementing the recommendations will help to improve the accuracy and impact of future research in this field.

These results highlight the urgent need for interventions to address the challenges facing rural residents with regards to access to clean water and proper sanitation facilities. Improving access to these services could have a significant impact on the health and well-being of rural communities in Nigeria.

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