

## Public Exposure and Response to Environmental Sanitation Messages on Adamawa Broadcasting Corporation (ABC) Radio Yola, Adamawa State

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### Abstract

This study examined public exposure to and responses toward environmental sanitation messages broadcast by Adamawa Broadcasting Corporation (ABC) Radio within Yola Metropolis, Adamawa State. Using a survey research design, a sample of 399 respondents was drawn from a population of 371,038 residents based on Taro Yamane's formula. The findings reveal relatively low levels of exposure to sanitation-related messages aired on ABC Radio. While the credibility of these messages was perceived as moderate, the study identified limited behavioural compliance with recommended sanitation practices, including proper waste disposal and participation in community clean-up efforts. The weak response was attributed to infrastructural deficits such as inadequate waste disposal facilities, irregular waste collection, and weak enforcement of existing sanitation regulations. The study concludes that message exposure alone is insufficient to drive behavioural change without supporting environmental infrastructure and enforcement mechanisms. It recommends that ABC Radio increase the frequency and appeal of its environmental programmes by integrating more interactive and engaging formats, such as talk shows,

street vox pops, drama skits, and listener call-in segments, to enhance public engagement and responsiveness.

**Keywords:** Environmental Sanitation; Public Response; Radio Messaging; Waste Management; Yola Metropolis

## INTRODUCTION

Environmental health issues have emerged as a major global concern due to their profound effects on human well-being, economic productivity, and societal development. Across the world, there is growing advocacy for sustainable environmental practices to address challenges such as pollution, waste mismanagement, and inadequate sanitation (Awewomom et al., 2024). In developing nations like Nigeria, environmental sanitation remains a persistent public health concern, especially in urban centres where improper waste disposal, blocked drainages, and open defecation have created serious environmental and health hazards (Pona et al., 2021). These unsanitary conditions contribute to the high prevalence of preventable diseases such as cholera, malaria, typhoid, and other infections linked to poor hygiene (Atif et al., 2024). Additionally, poor sanitation burdens the economy through increased healthcare costs and lost productivity, while socially it degrades living standards and exacerbates poverty and inequality (Van Minh & Nguyen-Viet, 2011; Owolabi et al., 2019).

In response, various interventions have been introduced, including government regulations, community-led clean-up initiatives, health education programmes, and public enlightenment campaigns. Among these, the mass media particularly radio plays a strategic role in disseminating environmental sanitation messages to wide audiences. Radio remains a powerful communication tool due to its accessibility, cost-effectiveness, and reach, especially in semi-urban and rural communities. Radio particularly, Adamawa Broadcasting Corporation (ABC) in Yola Metropolis have produced contents such as public service announcements, news reports, jingle campaigns, talk shows, and expert discussions aimed at raising awareness and promoting proper sanitation practices. Despite these efforts, the environmental sanitation situation in many parts of Adamawa State remains below expectations, prompting questions about the actual reach and impact of such messages (Iwokwagh et al., 2018). This concern underscores the need to evaluate the level of public

exposure to environmental sanitation messages disseminated via ABC Radio and how the public responds to them in terms of belief and behavioural change. Public exposure is a key precursor to awareness, knowledge acquisition, and attitudinal shifts. Therefore, this study seeks to examine the extent of public exposure to and response to environmental sanitation messages broadcast on Adamawa Broadcasting Corporation (ABC) Radio in Yola Metropolis, Adamawa State.

### **Statement of the Problem**

Adamawa State, Nigeria continues to grapple with severe environmental sanitation issues that threaten public health, urban infrastructure, and the overall quality of life. Indiscriminate waste dumping, overflowing drainage systems, and poor waste disposal practices are prevalent across key areas. These unsanitary conditions contribute to environmental degradation, flooding during the rainy season, and outbreaks of diseases such as cholera, typhoid, and malaria, creating a public health emergency that demands urgent attention. To mitigate these issues, the Adamawa Broadcasting Corporation (ABC Radio) has partnered with state environmental agencies such as the Ministry of Environment to produce sanitation-focused media content. These efforts include radio jingles, public service announcements, discussion programmes, and environmental awareness campaigns intended to educate the public on proper waste management and hygiene practices. However, despite these initiatives, the sanitation situation in the state remains largely unimproved, raising concerns about the reach and impact of these mediated messages.

It is unclear whether residents of are sufficiently exposed to the sanitation messages disseminated through ABC Radio, whether they find these messages credible, and whether such content is influencing public attitudes and behaviour. The persistent nature of sanitation challenges in the Yola metropolis (the state capital) suggests a disconnect between media campaigns and actual community response. Therefore, this study seeks to assess the level of public exposure to and response to environmental sanitation messages broadcast on Adamawa Broadcasting Corporation (ABC Radio) within Jimeta/Yola Metropolis.

### **Objectives of the Study**

This study aims to achieve the following objectives:

1. To examine the level of public exposure to environmental sanitation messages broadcast on ABC Radio in Yola Metropolis.
2. To assess the perceived credibility and believability of environmental sanitation messages among residents of Yola.
3. To evaluate residents' Responses to these messages in terms of knowledge acquisition, attitude change, and sanitation-related behavioural practices.
4. To identify the barriers that limit residents' Compliance with environmental sanitation messages despite awareness created through ABC Radio.

### **Research Questions**

The following research questions guided the study:

1. What is the level of public exposure to environmental sanitation messages on ABC Radio in Yola Metropolis?
2. How do residents of Yola perceive the credibility and believability of sanitation messages disseminated via ABC Radio?
3. In what ways do residents respond to ABC Radio' S environmental sanitation messages in terms of knowledge, attitude, and behavioural change?
4. What challenges hinder residents from complying with sanitation practices promoted through ABC Radio campaigns?

### **Literature Review**

#### **Theoretical Framework**

This study is anchored on Persuasion Theory, originally developed by Carl Hovland, Irving Janis, and Harold Kelley (1953). The theory explains how communication can influence individuals to change their attitudes, beliefs, or behaviours (Asemah et al., 2022). It posits that successful persuasion depends on several key factors: the credibility of the message source, the clarity and emotional appeal of the message, the characteristics of the audience, and the effectiveness of the communication channel (Ogah & Abutu, 2020). Persuasion Theory is particularly relevant to this study, as it provides a useful framework for understanding how environmental sanitation messages disseminated via Adamawa Broadcasting Corporation (ABC Radio) may influence residents' Attitudes and behaviours in Yola Metropolis. The theory helps evaluate whether residents are not only exposed to

these messages but also whether they perceive them as trustworthy and credible—especially when coming from government agencies and public broadcasters.

Moreover, the theory draws attention to potential barriers to persuasion, including audience scepticism, misinformation, competing media messages, and environmental or infrastructural challenges. These aspects are critical to this study's objective of assessing not only public exposure to ABC Radio messages but also the extent to which such exposure translates into knowledge acquisition, attitude formation, and actual behavioural change regarding environmental sanitation practices.

## **Conceptual Framework**

### **Environmental Sanitation**

Environmental sanitation refers to the control of environmental factors that form the basis of disease transmission and public health hazards. It encompasses proper waste disposal, water sanitation, drainage maintenance, and pollution control to promote a clean and healthy environment (Budge et al 2022). The World Health Organization (WHO) defines environmental sanitation as the interventions aimed at reducing environmental health risks through the management of waste, water supply, and hygiene practices (WHO, 2020). In the Nigerian context, environmental sanitation is an essential component of public health policies, given its role in preventing the spread of communicable diseases such as cholera, typhoid, and malaria.

In urban areas, environmental sanitation is a major challenge due to rapid population growth, inadequate infrastructure, and poor waste management systems (Ugwuanyi & Isife, 2012). Cities like Lagos, Kano, and Yola have witnessed rising cases of environmental degradation resulting from indiscriminate waste dumping, clogged drainages, and air pollution from unregulated industrial activities (Nnatu, 2018). Scholars argue that poor environmental sanitation is not just a public health issue but also an economic and social concern, as it leads to high medical expenses, reduced productivity, and urban slum development. To address this, Nigerian governments at different levels have introduced sanitation policies, including monthly environmental sanitation exercises and waste disposal regulations, yet enforcement remains a significant challenge (Danbaba et al, 2016).

## **Mass Media and Environmental Sanitation**

The mass media play a crucial role in shaping public awareness, attitudes, and behaviours regarding environmental sanitation (Linus, 2022; Odunlami & Aro, 2024). As a key agent of social change, the media serve as a bridge between government agencies, environmental experts, and the public, disseminating information that encourages positive sanitation practices (Ezeaka & Bartholomew, 2025). Radio, television, newspapers, and digital media platforms are used to educate the public on proper waste disposal, hygiene, and the dangers of environmental degradation (Arikenbi, et al, 2023). These media channels serve as advocacy tools that mobilise citizens to take responsibility for maintaining a clean and healthy environment, often through campaigns, news reports, and documentaries that highlight the consequences of poor sanitation (Idamah, 2015).

In Nigeria, media organisations in collaboration with environmental agencies have implemented various programmes to promote sanitation. The Federal Ministry of Environment, the National Environmental Standards and Regulations Enforcement Agency (NESREA), and state waste management boards frequently partner with media houses to disseminate sanitation messages. In many states authorities are using television and radio jingles to sensitise residents on waste disposal methods, while newspapers like *The Guardian* and *Vanguard* regularly publish investigative reports on sanitation challenges in different states. Despite the media's efforts, environmental sanitation challenges persist in many Nigerian cities.

### **Radio and Environmental dissemination of Sanitation Messages**

Radio remains one of the most influential platforms for disseminating environmental sanitation messages, particularly in urban and semi-urban communities where access to print and digital media may be limited. Environmental sanitation messages disseminated via radio include information campaigns, public service announcements, interviews, jingles, and discussion programmes aimed at promoting proper hygiene, waste disposal, and pollution control. These messages are typically intended to create awareness, influence public attitudes, and encourage behavioural change in support of environmental health (Maidunoma & Falmatami, 2018). Scholars acknowledge the critical role radio plays in environmental advocacy, especially in shaping listeners' Perceptions and encouraging active participation in sanitation efforts (Habibu & Joseph, 2023).

In Nigeria, radio has been widely utilised by both governmental and non-governmental stakeholders to promote sanitation. Agencies) and the National Environmental Standards and Regulations Enforcement Agency (NESREA) often collaborate with public radio stations like Adamawa Broadcasting Corporation (ABC Radio) to broadcast messages that address pressing environmental challenges. These partnerships underscore the integral role of radio in environmental governance and civic education. The effectiveness of radio-delivered sanitation messages depends on several factors: audience exposure frequency, the perceived credibility of the radio station, and the persuasive quality of the messages (Al-Dmour et al., 2022). Studies show that repeated exposure to sanitation-related content through radio increases public awareness and reinforces knowledge of best practices (Ifeanyi, 2022). However, message impact also hinges on trust. Listeners are more likely to accept and act on information when they consider the source credible (Ogunjimi & Adebayo, 2021). In this regard, ABC Radio and other respected local stations in Adamawa State have contributed meaningfully to influencing public attitudes and responses to sanitation campaigns (Uchegbu, 2017).

### **Overview Environmental Health Crisis in Nigeria**

Environmental health crisis in Nigeria has become a pressing issue due to rapid urbanisation, poor waste management, deforestation, air and water pollution, and inadequate sanitation infrastructure (Pona et al, 2021). The country' S expanding population and unregulated industrial activities have exacerbated environmental degradation, leading to severe health hazards for millions of Nigerians (Ibimilua & Ayiti, 2024). The World Health Organization (WHO) (2020) estimates that a significant percentage of diseases in Nigeria are related to poor environmental conditions, including cholera, typhoid, malaria, and respiratory infections. In cities such as Lagos, Kano, and Port Harcourt, open defecation, indiscriminate waste disposal, and inadequate drainage systems contribute to the spread of diseases and increase the vulnerability of residents to floods and other environmental disasters.

The environmental health crisis in Nigeria is particularly severe in urban centres where population density has outpaced infrastructural development. In most cities, improper sewage disposal has contaminated water sources, leading to frequent outbreaks of waterborne diseases (Aliyu & Amadu, 2017). The lack of proper waste management systems has resulted in massive waste dumps, leading to air and water contamination,

which directly affects human health (Pona et al 2021). Despite efforts by government agencies such as the National Environmental Standards and Regulations Enforcement Agency (NESREA) and state waste management boards, environmental hazards persist due to weak enforcement of environmental laws and public non-compliance with sanitation policies (Okechukwu, 2024).

The economic implications of Nigeria' S environmental health crisis are substantial. Poor sanitation and environmental degradation lead to high healthcare costs for individuals and the government due to increased disease burden. For instance, Nigeria loses billions of naira annually due to productivity losses resulting from illnesses linked to environmental pollution (Kodiya et al., 2025). In addition, poor environmental conditions discourage investment and tourism, as seen in cities like Port Harcourt, where soot pollution from illegal refining activities has driven away investors and caused long-term health complications for residents (Odirichukwu, 2023). The social consequences are also dire, as communities with poor sanitation experience higher rates of poverty, school ABCenteeism, and reduced life expectancy due to the impact of preventable environmental diseases (WHO, 2020). Despite numerous policies and intervention programmes aimed at addressing environmental health challenges in Nigeria, the crisis persists due to poor policy implementation, corruption, and a lack of public awareness (Ajulor, 2018).

### **Review of Empirical Studies**

Previous studies in communication and media research have explored the role of the media in promoting environmental sanitation across various countries and communities in Nigeria. Syahartijan (2018) examined public exposure to environmental health messages in Indonesia, focusing on the sources of information—radio, television, and newspapers—used by residents of Buton district to acquire knowledge on environmental health. The study found a significant variation in how residents in different sub-districts received environmental health information from mass media. However, television emerged as the most effective medium for disseminating knowledge on environmental health. While Syahartijan' S study provides valuable insights into media exposure and knowledge acquisition, it differs from the current research on public exposure and response to mediated environmental sanitation messages in Yola Metropolis, Adamawa State. The Indonesian study primarily assessed knowledge acquisition, whereas the present study

extends beyond exposure to examine audience response, including believability, behavioural adaptation, and challenges to adherence.

In another study, Arikenbi et al. (2023) investigated residents' Perception of the effectiveness of the media in managing environmental health issues in Auchi, Edo State, Nigeria. The study employed a survey research design and collected data through questionnaires. Findings revealed that 77% of respondents perceived the media' S role in environmental health management as positive. Additionally, 65% of participants identified improper waste disposal as the major environmental health challenge in Auchi. The study further established that 59% of respondents viewed the media as highly effective in managing environmental health issues, particularly through awareness creation, education, and advocacy for behavioural change. While Arikenbi et al.' S study provides crucial insights into public perception of media effectiveness, it differs from the current study. The Auchi-based study primarily focused on perception and general media effectiveness, whereas the present study seeks to examine not just perception but also exposure, believability, and behavioural response to environmental sanitation messages. Furthermore, regional variations in environmental sanitation challenges, media reach, and audience engagement could influence the effectiveness of media messages differently across locations.

Also, Linus (2022) examined the influence of broadcast media content on shaping audience attitudes toward environmental sanitation in Nigeria, using Makurdi Metropolis as a case study. The study employed a survey research method, utilizing questionnaires for data collection. Findings indicated that residents rely on broadcast media as their primary source of environmental sanitation information. Furthermore, the results demonstrated that broadcast media content helps to generate public consent regarding sanitation practices and significantly influences residents' Environmental habits. While Linus' Study provides valuable insights into the role of broadcast media in shaping attitudes toward environmental sanitation, it differs from the current study on public exposure and response to mediated environmental sanitation messages in Yola Metropolis, Adamawa State. Linus' Work focused on attitude formation through media exposure, whereas the present study goes further by examining not only exposure but also how audiences respond to these messages—whether they take action or ignore them. Additionally, regional differences in media consumption patterns and sanitation challenges may lead to variations in audience

engagement. Despite these distinctions, both studies underscore the importance of media in environmental sanitation

Additionally, Kusugh et al. (2024) explored audience responses to broadcast media reportage of flood forecasts in Nigeria, recognising flooding as a critical challenge requiring the attention of stakeholders, including the media. The study employed a survey research design, using questionnaires to collect data from respondents in three flood-prone states: Adamawa, Benue, and Lagos. Findings revealed a high level of public exposure to broadcast media, particularly radio, for flood forecast information. However, the study noted that the extent of media involvement in disseminating such information was limited, reducing the effectiveness of public response to flood warnings. While Kusugh et al.'s study focuses on public exposure to mediated flood forecasts, it differs from the current study on public exposure and response to mediated environmental sanitation messages in Yola Metropolis, Adamawa State. The former investigates natural disaster warnings, whereas the latter examines sanitation messages, which relate to ongoing behavioural practices rather than emergency responses. Despite this difference, both studies highlight the role of the media in shaping public awareness and action concerning environmental challenges.

Furthermore, Achioko et al. (2019) examined the role of the media in promoting environmental health in Yola, the capital of Adamawa State. The study aimed to determine how mass media raise awareness of environmental health issues. Using a survey research design and a simple random sampling technique, data were collected through a questionnaire. Findings indicated that broadcast media have been highly effective in environmental health management, as they regularly transmit messages on environmental hazards and sustainability. The study revealed that media messages have significantly raised public awareness, influenced attitudes towards environmental issues, and fostered greater environmental consciousness among residents. It concluded that addressing environmental challenges requires active participation from all stakeholders. This study shares similarities with the current research on public exposure and response to mediated environmental sanitation messages in Yola Metropolis, as both investigate the role of the media in shaping environmental consciousness. However, while Achioko et al. (2019) focused broadly on environmental health awareness, the current study narrows its scope to environmental sanitation messages.

In the same vein, Nwankwo (2017) investigated residents' Assessment of the media' S role in environmental health education in Onitsha Urban, a rapidly growing metropolitan area. Using a combination of multi-stage and simple random sampling techniques, the study selected 195 respondents. Data were collected through a questionnaire and in-depth interviews, with seven research questions and one hypothesis formulated. Findings revealed that residents rated the level of environmental health education and awareness as very low, attributing this to minimal media engagement. A chi-square test showed a significant relationship between education and perception of environmental health issues, indicating that individuals with lower education levels were less concerned and less likely to take proactive measures. Logistic regression analysis further revealed that older respondents were more inclined to fulfil their environmental health responsibilities compared to younger ones. This study relates to the current research on public exposure and response to mediated environmental sanitation messages in Yola Metropolis, as both examine the effectiveness of media in shaping public awareness and response to environmental health concerns. However, while Nwankwo (2017) focused on general environmental health education, the current study specifically investigates how mediated sanitation messages influence public attitudes and actions in Yola. Furthermore, Nwankwo' S study highlights gaps in media engagement in Onitsha, whereas the present research explores whether similar challenges exist in Yola and how media messages on sanitation are received and acted upon by residents.

Additionally, Banjo and Obun-Andy (2023) investigated the media' S role in raising awareness about environmental education. The study adopted a survey research design and was guided by three objectives. The population comprised residents of Ogun State, spanning its three senatorial districts (Ogun Central, East, and West). A total sample of 200 residents was selected using multi-stage sampling techniques, including stratified, simple random, and purposive sampling. Data were collected through a survey using a Likert-type rating scale and analysed with SPSS 25.0. Findings indicated that a lack of education on environmental issues ( $X = 2.51$ ,  $SD = 0.86$ ) and weak government policies ( $X = 2.13$ ,  $SD = 0.97$ ) were key challenges hindering the media' S effectiveness in creating environmental awareness. Additionally, the study' S hypothesis test showed a significant positive correlation between environmental education and media awareness ( $r = .649$ ,  $p < .05$ ), suggesting that increased media exposure enhances public understanding of environmental issues. This study aligns with the current research as both explore the media' S role in

shaping environmental awareness and public attitudes. However, while Banjo and Obun-Andy (2023) focused broadly on environmental education in Ogun State, the present study narrows its scope to environmental sanitation messages in Yola. Furthermore, the former highlights systemic challenges such as weak policies and lack of education, whereas the current research seeks to determine how sanitation messages disseminated through mass media influence behavioural responses among Yola residents.

Another closely related study was by Nnaemeka and Nlekuwa (2021) which examined the influence of the Adamawa Broadcasting Corporation (ABC) slogan "Dobe Anambra Ocha" On the attitudes of Yola residents towards environmental sanitation. The study sought to determine whether residents had responded to the slogan's call to maintain cleanliness in their environment. The study adopted a survey research design. A sample size of 399 was drawn from the Yola Metropolis, with data collected through a questionnaire. Findings revealed that 74.9% of respondents had high exposure to the ABC slogan, 73.6% affirmed its effectiveness in promoting environmental sanitation, and respondents generally exhibited a positive attitude towards the slogan. This study closely aligns with the current research on public exposure and response to mediated environmental sanitation messages in Yola Metropolis, as both focus on media influence on sanitation attitudes and behaviours within the same geographical area. However, while Nnaemeka and Nlekuwa (2021) specifically examined the impact of a localised media campaign (*Dobe Anambra Ocha*), the present study takes a broader perspective by analysing multiple mediated environmental sanitation messages beyond a single slogan.

## **METHODOLOGY**

This study adopted a survey research design to assess residents' Exposure and response to mediated environmental sanitation messages in Yola Metropolis. The target population consisted of 371,038 residents of Yola Metropolis, a figure projected from the 2006 census using the United Nations Development Programme (UNDP) annual population growth rate of 2.28%. The study focused specifically on individuals who engage with local media—those who listen to local radio, watch local television stations, or read local newspapers, either in print or online. To determine the sample size, Taro Yamane's (1973) formula was applied, resulting in a sample of 399 respondents, which aligns with recommendations by Wimmer and Dominick (2011) for studies of this nature. A

combination of purposive and convenience sampling techniques was employed to ensure that only residents who are exposed to environmental sanitation messages on local media outlets were included in the study. The primary instrument for data collection was a structured questionnaire, which was administered through face-to-face interactions to enhance response accuracy. The collected data were analyzed using simple frequency distribution tables, percentages and mean score.

## RESULTS

**Table 1: Demographic Characteristics of Respondents (N = 399)**

Variable	Categories	Frequency (N)	Percentage (%)
Gender	Male	198	49.6%
	Female	201	50.4%
Age Group	18–25 years	110	27.6%
	26–35 years	135	33.8%
	36–45 years	85	21.3%
	46 years and above	69	17.3%
Educational Level	Primary Education	45	11.3%
	Secondary Education	122	30.6%
	Tertiary Education	195	48.9%
	No Formal Education	37	9.2%
Occupation	Student	108	27.1%
	Civil Servant	94	23.6%
	Business/Trader	85	21.3%
	Artisan	56	14.0%
	Unemployed	56	14.0%
Length of Residency in Yola	Less than 5 years	102	25.6%
	5–10 years	126	31.6%
	Above 10 years	171	42.9%

Source: Field Survey 2025

Table 1 above present the demographic table reveals a balanced gender representation, with 49.6% male and 50.4% female respondents. The majority (33.8%) fall within the 26–35 years age bracket, indicating a youthful population. Educationally, nearly half (48.9%) possess tertiary education, while 30.6% have secondary education, suggesting a relatively literate audience. In terms of occupation, students (27.1%) and civil servants

(23.6%) form the largest groups, followed by business/traders (21.3%), artisans (14.0%), and the unemployed (14.0%). Regarding residency, a significant portion (42.9%) have lived in Yola for over 10 years, implying that the respondents have long-term experience with environmental sanitation situation and media campaigns in Yola.

**Table 2: Respondents' Exposure to ABC Radio and Environmental Sanitation Messages**

Responses	Frequency (n)	Percentage (%)
<b>How often do you listen to ABC Radio?</b>		
Very Frequent	84	21.1%
Frequent	128	32.1%
Occasionally	112	28.1%
Rarely	75	18.8%
<b>How often do you come across Environmental Sanitation Messages on ABC?</b>		
Very Frequent	69	17.3%
Frequent	106	26.6%
Occasionally	138	34.6%
Rarely	86	21.5%
<b>Total</b>	<b>399</b>	<b>100%</b>

The table shows that while a considerable proportion of respondents in Yola Metropolis are exposed to ABC Radio, the frequency varies. About 21.1% of the 399 respondents reported listening to ABC Radio very frequently, 32.1% frequently, 28.1% occasionally, and 18.8% rarely. This suggests that more than half of the respondents (53.2%) have regular exposure to the station, either frequently or very frequently. In terms of exposure to environmental sanitation messages specifically on ABC Radio, 17.3% reported very frequent exposure, 26.6% frequent, 34.6% occasional, and 21.5% rare exposure. This indicates that while a majority (61.9%) of respondents come across such messages at least occasionally, there is a noticeable decline in very frequent and frequent exposure compared to general listenership. This may imply that although ABC Radio has a strong reach, the frequency of airing sanitation messages may not be sufficient to ensure consistent public engagement.

**Table 3: Audience Response to Environmental Sanitation messages broadcast on ABC Radio**

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Interpretation
I now dispose of my waste properly because of sanitation campaigns I heard on ABC Radio.	12.5% (50)	17.5% (70)	22.6% (90)	27.6% (110)	19.8% (79)	2.30	Poor Response
Environmental sanitation messages on ABC radio have influenced me to participate in community clean-up exercises.	11.3% (45)	16.3% (65)	21.3% (85)	30.1% (120)	21.1% (84)	2.18	Poor Response
I avoid littering and encourage others to do the same after exposure to sanitation messages on ABC Radio.	13.8% (55)	18.8% (75)	20.1% (80)	28.9% (115)	23.5% (94)	2.22	Poor Response
I have started using designated waste bins more frequently due to media awareness via ABC radio.	12.0% (48)	17.0% (68)	23.8% (95)	28.1% (112)	24.6% (98)	2.15	Poor Response
I am motivated to take action when I see poor sanitation practices in my neighbourhood as a result of messages I heard on ABC radio.	13.0% (52)	18.0% (72)	22.1% (88)	29.6% (118)	22.8% (91)	2.20	Poor Response

The data in Table 3 reveals a generally poor audience response to environmental sanitation messages broadcast on ABC Radio. Across all five behavioural indicators proper waste disposal, participation in clean-up exercises, avoidance of littering, use of designated waste bins, and taking action against poor sanitation practices the majority of respondents either disagreed or strongly disagreed that ABC Radio messages influenced their actions. Mean scores for all items range between 2.15 and 2.30, falling below the midpoint on a 5-point scale, thus indicating poor response. Although a small percentage of respondents strongly agreed or agreed with the statements, a larger portion remained neutral or responded negatively, suggesting limited behavioural impact of the sanitation messages. This implies

that while the messages may reach the audience, they are not compelling enough to drive significant behavioural change among residents of Yola Metropolis.

**Table 4: Challenges hindering adherence to environmental sanitation messages received from ABC Radio**

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Interpretation
Lack of waste disposal facilities in my area makes it difficult to follow sanitation guidelines.	180 (45.1%)	140 (35.1%)	40 (10.0%)	25 (6.3%)	14 (3.5%)	4.12	Major Challenge
Irregular waste collection by government agencies discourages proper waste disposal.	160 (40.1%)	145 (36.3%)	45 (11.3%)	30 (7.5%)	19 (4.8%)	3.98	Significant Challenge
Poor enforcement of sanitation laws reduces my willingness to comply with sanitation messages.	155 (38.8%)	150 (37.6%)	50 (12.5%)	25 (6.3%)	19 (4.8%)	3.95	Significant Challenge
I lack personal motivation to take sanitation messages seriously because my neighbours do not take sanitation issues seriously.	150 (37.6%)	140 (35.1%)	55 (13.8%)	30 (7.5%)	24 (6.0%)	3.85	Considerable Challenge
I do not have the finances to provide environmental sanitation equipment to adopt environmental sanitation guidelines communicated to the public.	165 (41.3%)	135 (33.8%)	50 (12.5%)	30 (7.5%)	19 (4.8%)	3.91	Significant Challenge

Source: Field Survey 2025

The table above highlights the major challenges respondents face in adhering to environmental sanitation messages despite media awareness efforts by ABC radio. The most significant challenge is the lack of waste disposal facilities (mean score = 4.12), indicating that many residents struggle to follow sanitation guidelines due to inadequate infrastructure. Irregular waste collection by government agencies (3.98) and poor

enforcement of sanitation laws (3.95) also rank high, showing that institutional failures discourage proper waste disposal. Additionally, financial constraints (3.91) prevent some residents from acquiring necessary sanitation equipment, while lack of personal motivation due to community attitudes (3.85) further reduces compliance. These findings suggest that while media messages create awareness, structural and social barriers hinder actual behavioural change.

## DISCUSSION

The first objective of the study was to determine the level of exposure to environmental sanitation messages via ABC radio among residents in Yola. The findings reveal that overall public exposure to mediated environmental sanitation messages in Yola metropolis is relatively low. These findings align with Syahartijan' S (2018) study on environmental health messages in Indonesia, which also found variations in media exposure among different sub-groups. However, the findings contradict those of Nnaemeka and Nlekuwa (2021), who established high exposure to the Adamawa Broadcasting Corporation (ABC) environmental sanitation programme *Dobe Anambra Ocha*.

Secondly, the study sought to assess residents' Responses to the messages. The findings indicate that audience response remains generally poor. Across all measured behavioural indicators—proper waste disposal, participation in clean-up exercises, discouraging littering, using designated waste bins, and taking action against poor sanitation compliance was found to be low. This suggests a gap between media exposure and actual behavioural change. These findings differ from those of Linus (2022), who found that broadcast media significantly influenced residents' Environmental habits in Makurdi Metropolis. The contrast may be attributed to differences in media consumption patterns and enforcement mechanisms across regions. It also disagrees with Achioko et al. (2019), who found that broadcast media were highly effective in environmental health management in Yola. However, the findings align with those of Kusugh et al. (2024), who explored audience responses to broadcast media reportage of flood forecasts in Nigeria and found limited media involvement in promoting public response.

Furthermore, the study examined the challenges hindering the adoption of environmental sanitation messages disseminated through ABC radio. The results indicate

that the most pressing issues include inadequate waste disposal facilities, irregular waste collection, and poor enforcement of sanitation laws. These challenges make it difficult for residents to comply with sanitation guidelines communicated to them through the radio station. Institutional weaknesses in enforcement further discourage proper waste management. These findings resonate with Banjo and Obun-Andy (2023), who found that weak government policies and a lack of environmental education hinder media effectiveness in promoting sanitation awareness. Similarly, their study highlighted the role of media in raising public awareness and influencing attitudes. However, the present study diverges by demonstrating that while awareness levels may be high, behavioural compliance remains a challenge due to infrastructural and enforcement gaps.

## **CONCLUSION**

This study investigated the level of public exposure to, belief in, and response to environmental sanitation messages broadcast on ABC Radio in Yola Metropolis, Adamawa State. Findings revealed that while a substantial portion of the population is exposed to ABC Radio, actual exposure to sanitation messages aired on the station remains relatively low. Although many respondents perceive ABC Radio as a credible source of information, this belief has not significantly translated into positive behavioural outcomes, such as proper waste disposal, participation in community clean-up exercises, or consistent use of waste bins. The study also identified critical barriers to behavioural compliance, including infrastructural deficiencies, irregular waste collection services, and weak enforcement mechanisms. These findings suggest that while ABC Radio plays an important role in raising awareness, media campaigns alone are insufficient to drive behavioural change without systemic improvements. This offers partial validation of the Persuasion Theory, showing that credibility and exposure alone are inadequate without enabling environments and supporting policies.

## **Recommendations**

1. Given the limited exposure to sanitation messages, ABC Radio should increase the frequency and visibility of its environmental programmes by adopting more engaging formats such as talk shows, street vox pops, drama skits, and call-in segments.

2. The Adamawa State government and relevant agencies should provide more waste disposal infrastructure, including public bins, mobile collection units, and dedicated landfill sites across Yola.
3. Law enforcement agencies should partner with community leaders to ensure stricter enforcement of sanitation regulations while offering incentives for compliance, such as recognition awards for clean neighbourhoods.
4. ABC Radio should collaborate with local influencers, religious groups, and youth associations to organise community-based sanitation awareness drives that create a sense of collective responsibility and sustained engagement.

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