

## Effectiveness of Broadcast Media Messages on Climate Change in Port Harcourt Metropolis

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### **Abstract**

*This study assessed the effectiveness of broadcast media messages on climate change in Port Harcourt metropolis. The objectives of this study were among others to ascertain the level of awareness among Port Harcourt metropolis residents on broadcast media messages towards climate change. The agenda setting, social responsibility and framing theories underpinned this study. The study adopted the analytical descriptive survey design. The population of Port Harcourt metropolis according to Port Harcourt Urban Area Population Projection in 2023 stood at 3,480,000. The sample size of 400 was drawn using Taro Yamane mathematical formula and multi-stage sampling technique was used to select the respondents for the study. The instrument of the study was the validated designed questionnaire. The data analysis was done using descriptive and inferential statistical analysis. In other words, contingency tables were used to present data obtained from the questionnaire which was quantitative method. To measure extent, a scale was constructed using weighted mean score, where score of 0 – 2 was very low, 2.1 – 2.49 low, 2.5 – 3 high and 3.1 – 4 was very high. Findings revealed that respondents have heard and watched the broadcast media messages on climate change, and the level of awareness among Port Harcourt residents was low, among others. The study concluded that broadcast media messages in terms of awareness and knowledge are low and the residents have much information, however, the little done is been perceived by them to change their behaviour positively on climate change by taking preventive measures. The study recommended that Prompt and increased awareness of the citizens on climate change remains the sure way of enlightening them on preventive measures to reduce the extent of effects.*

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**Keywords:** *Effectiveness, broadcast media, climate change*

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## Introduction

It is now clear that most adverse climatic and environmental impacts that occur today are manifestations of man's inadvertent modifications to climate on local and to a limited extent, regional scale in some activities of the distant past. Natural and human induced global environmental change belongs to the class of risk with high probability of occurrence and damage potential but in such a remote future that for the time being no one is willing to perceive the threat. Although the probability of occurrence and the damage potential are well known and clear, there is always a time lag between trigger and consequence which create a fallacious impression of security. Most disasters (including flood, droughts, desertification, land degradation, subsidence, etc.) are not random events without underlying causes; they are sudden manifestations of slow but continuous degradation processes (UNEP-GRID-Arendal 2005).

Flood disaster risk and climate change are two threats to human wellbeing that reinforce each other. Hence, they represent some of the greatest challenges to humankind in this century. Disaster risk is an intrinsic characteristic of human society, arising from the combination of natural and human factors and subject to exacerbation or reduction by human agency. While the adverse impacts of climate change on society may increase disaster risk, disasters themselves erode environmental and social resilience, and thus increase vulnerability to climate change (O'Brien *et al.*, 2008). Climate change and the likely increase in disasters threaten to block pathways out of poverty in developing countries especially those in Africa. Any increase in disasters, whether large or small, will threaten development gains and hinder the implementation of the Millennium Development Goals (ISDR, 2008). In the coming decades, climate change is expected to exacerbate the risks of disasters, not only from more frequent and intense hazard events but also through greater vulnerability to the existing hazards (ISDR, 2008).

Approaches toward the management of climate change impacts have to consider the reduction of human vulnerability under changing levels of risk. A key challenge and opportunity therefore lie in building a bridge between current disaster risk management efforts aimed at reducing vulnerabilities to extreme events and efforts to promote climate change adaptation (Olorunfemi, 2008). Floods are the most common natural occurring hazard and are responsible for a greater number of fatalities globally. Floods are a result of excess water flowing on land that used to be dry. Among natural disasters, floods have been reported to be responsible for almost half of causalities. Floods are also the most frequent natural disaster, affecting over 2.8 billion people in the world and causing over 200, 000 deaths over the past three decades (Hashizume, 2013). Between 1995 and 2015, the lives of 2.3 billion people were affected, making flood accountable for 47% of all weather-related disasters globally and factors that cause flood events are complicated and interrelated (Halgamuge & Nirmalathas, 2017). Floods are naturally caused by rise in temperature resulting in heavy downpours of rain, glacier melt and thermal expansion of the ocean, subsequently causing a rise in sea levels and inundation by coastal lands (Etuonovbe, 2011).

Climate change has been the major cause of these conditions globally. Floods are usually exacerbated by human activities such as construction of houses in area that are prone to flooding. Flooding in Port Harcourt metropolis is linked to extreme rainfall, which is linked to climate change (Li *et al.*, 2013). According to Doocy *et al.*, (2013), streams of river basins with smaller drainage area are known to respond quickly to climate change on short timescales ranging from hours to days to months. Located close to the Atlantic Ocean are a small deltaic

drainage area; this makes the rivers and streams in Port Harcourt very sensitive to the extreme rainfall resulting from climate change and the impact of human activity.

One of the most common natural disasters in the world is flooding, which has led to the loss of lives and properties, damage to critical infrastructures, and thousands of people being displaced annually. Floods occur when land has been submerged by the overflow of water. The causes of floods can be natural or man-made depending on the dominant cause in a region. Often, flood is caused by heavy rainfall, poor drainage system and climate change. Over 2 billion people around the world from 1998-2017 have been affected by floods and people who inhabit plain grounds or non-resistant buildings and also lack disaster warning systems are prone to floods (UNICEF, 2022). Climate change has also been attributed to one of the causes of flooding in Nigeria which has led to extreme temperatures, constant rainfalls, drought, land degradation, and loss of biodiversity. To combat climate change, in 2016 the government put in some measures to reduce the emissions rate by 45 per cent before 2030. It is believed that climate change has been one of the reasons for incessant rainfalls. For instance, in 2012 over 30 states out of 36 states in the country were submerged by water and over 1.3 million people were displaced. According to the report by Nigeria's National Emergency Management Agency (NEMA, 2022), the estimated damage caused by the flood was estimated to be \$17 billion.

Climate change is an environmental problem that has become a global monster that stares us all in the face. Individuals, organizations, nations and regions are all feeling the effects of climate change. Economies, homes and lives are lost in no small measures to climate change. Because of its seriousness and severity, climate change has generated and continued to generate national, regional and international discourse for decades. It has not only taken front burner in political, social and economic gatherings, it has also necessitated numerous summits, conferences, conventions and declarations with individuals, organizations and nations lending their voices to the discourse. Sayne (2011) argues that if climate challenges are not addressed, they could throw stressed resources such as land and water into shorter supply.

The mass media and particularly broadcast media are critical stakeholders in mitigating climate change. Yadav and Rani (2011) stress that the media in their fight against climate change can focus on causes of environmental problems as well as their adverse impact on humanity. The mass media can as well act as catalyst in enlightening the masses on climate change. They can also report global warming, green peace movement, depletion of the ozone layer, green-house gases effect, acid rain, etc. The mass media can still report the need to show restraint by humans in their use of the natural resources. They can as well play vital role in reporting disaster arising from climate change. They can yet give accurate and objective reports during pre-disaster, during the disaster and during post-disaster. These are with the intent to reduce tension and mitigate the adverse effect of such disaster.

Woldemichael (2020) observes that the media are wide-reaching forces that can communicate what is happening daily around the world to people. They have influence in shaping public opinion on climate change and environmental protection. Similarly, Ogwezi and Umukoro (2020) state that community and global efforts aimed at mitigating climate change are greatly influenced by how the media portray climate change in Nigeria and around the world. Though the media industry has been reporting issues of climate change, it has failed to give issues of climate change enough attention and better reportage, to hold politicians

accountable and push for more nuanced conversations (Woldemichael, 2020). Ogwezi and Umukoro (2020) again assert that media have created increased environmental consciousness within newsrooms, environmental issues associated with climate change have not received the desired and needed attention.

### **Statement to the Problem**

Despite that there is favourable climate in Port Harcourt Metropolis, yet there are some flood disaster challenges that are facing city as a result of climate change. Among these problems are persistent droughts, flooding, and off-season rains. These usually bring growing season out of orbit on a city dependent on rain-fed agriculture, increase in greenhouse gasses such as carbon dioxide and other gases which are problem to human existence, increasing incidence of disease, declining agricultural productivity, and rising number of heat waves in Port Harcourt metropolis etc. Climate change often appears very esoteric but in River state, especially, Port Harcourt metropolis, it is real and there is a need to embark on basic research to find out the awareness level of residents on the broadcast media messages on climate change and emerging flood disasters, which could help control the magnitude of the damage, legislation against it and kinetic efforts to ameliorate it. In addition, determining the communication effectiveness would help set the goals for the social change. Therefore, a study of this nature is geared towards enhancing solutions on climate change and flood by the Federal Government, using various agencies like Nigeria's National Emergency Management Agency, National Agency for Food and Drug Administration and Control, Federal Ministry of Humanitarian Affairs, Disaster Management and Social Development etc.

In recent times, in Port Harcourt Metropolis, Rivers State, there are so many effective broadcast media messages for public enlightenment on climate change and emerging flood disasters prevention strategies. To draw adequate attention to environmental degradation issues, Treasure 98.5 FM has "Let's talk about it with edition on global warming and flood issues; Radio Rivers 99.1 FM has "Health and Life Style"; Rhythm 93.7 FM has "Rhythm Formula" and Nigeria Info 92.3 has "Amebo Zone with edition on environment issues". Nigeria Television Authority (NTA) Port Harcourt, has a programme called "You and Environment"; African Independent Television (AIT) Port Harcourt has "Environment Moment" Rivers State Television (RSTV) has "Tori in Town with edition on environment" SilverBird Port Harcourt has "Health Monitor." All these programmes are for daily tips on climate change, emerging flood disasters and fight against environmental degradation. Besides, it is of importance to state that researchers in recent times such as Adekola *et al.*, (2008), Ajaero *et al.*, (2012) and Ngozi *et al.*, (2012) have carried out research work on the effect of flood, audience perspectives, and the role of the media in managing flood disaster. But there is no study known to the researchers on broadcast media messages on climate change and emerging flood disasters. Hence, this study was set out to examine the effectiveness of broadcast media messages on climate change in Port Harcourt Metropolis.

### **Aim and Objectives**

The aim of this study was to examine the effectiveness of broadcast media messages on climate change in Port Harcourt metropolis. The specific objectives of the study were to:

1. ascertain the level of awareness among Port Harcourt metropolis residents on broadcast media messages towards climate change.
2. examine the level of knowledge the Port Harcourt metropolis residents have through the exposure to broadcast media messages on climate change.

3. determine the perception of Port Harcourt metropolis residents on the broadcast media messages on climate change; and
4. evaluate the effectiveness of broadcast media messages on climate change in influencing the behaviour of Port Harcourt metropolis residents.

## **Literature Review**

### **Theoretical framework**

This study was anchored on three theories namely: agenda setting, social responsibility and framing theories. The agenda-setting theory as propounded by McCombs and Shaw (1972) posits that the mass media do not instruct what people think but what they should think about. The agenda setting theory according to Ngoa (2012) profoundly came about “during the period 1950’s and 1960s when researchers became dissatisfied with the limited effects model. Specifically, the theory resulted from a study conducted by Shaw and McCombs pertaining to the 1967 presidential election in the United States of America (Akakwandu, 2012). Ekeanyanwu (2015) in his view contends that “agenda setting is where the mass media is accredited with the power to set the agenda of the topic for discussion” (p.15). This means that it is what the media want us to think about that they project to the public as an important issue and at the end of the day, it appears important in the eyes of the public (Ozuru & Ekeanyanwu, 2013). The agenda setting theory is relevant in this study because the media provide information to the members of the public and through this provision of information, people learn about important issues of the day. This implies that, it is the attention the mass media gave to the issue of climate change and flood through different public enlightenments that people get to know about the issues and how it can be ameliorated. Hence, due to the massive enlightenments given to the climate change and flood issues, the subject has feature frequently on media programmes thus providing public awareness in virtually nook and cranny of the society. The import of the theory underscores the fact that the mass media are charged with the responsibility of investigating, reporting and alerting members of the public about unfolding developments or events in the society. It therefore, behoves on the news media to perform this obligation to the society with all sense of seriousness. This is because majority of populace depend on the media for information about what goes on the public will be misinformed and misled.

Also, this theory was propounded by Siebert, Peterson and Schramm in 1963 also provides a work for this study. It underscores the need for the media to accept and fulfil obligations to the society. The social responsibility theory is an extension of Libertarian Theory, in that the media recognises that it has a responsibility to society to carry out its essential functions (Hassan, 2013). Nwabueze (2014) summarises the social responsibility theory of the press a theory developed to check the excesses of a free press. The theory posits that much as the press should be free to operate in any society such freedom should carry certain responsibilities or simply the press freedom does not mean the press should do as it pleases. It should operate in recognition of societal needs and aspiration. The relevance of social responsibility theory to this study is that since it is genuinely the responsibility and/or duty of the press to freely inform the members of the society, it is then part and parcel of this responsibility or obligation of the press or the media to bring to the public issues on climate change and flood issues in the society with a view to exposing the effects. This will go a long way in not only sanitising the environment and also making society a better place. Without proper framing, representation and indeed, reportage of climate change and flood issues as an environmental degradation would continue to bestride the society and this would no doubt be seen as an indictment on the press for non-performance.

Finally, framing theory was propounded by Tversky and Kahneman in 1981 and framing theory focuses on how media organizations design and package information or messages about issues to influence or change the perception of the receivers concerning the particular message. The framing theory involves giving an angle to an event with a view that audience or readers would perceive the story from the perspective of the media reporting same (Oduah, 2014). This theory suggests that the way information is presented (framed) determines the way people understand such message. Baran and Dennis (2020) further explain that this theory examines the idea about how people use expectations to make sense of every life. Social constructivists have argued that at the heart of framing, is framing analysis (Ngwu *et al.*, 2015). Here, the basis for framing theory is that the media focus attention on certain events and then places them within a field of meaning and interpretation to the masses. The Framing theory explains this study from the point of how media reportage of an event contributes in shaping the perception of the people. Framing theory helps us to understand that the way mass media audience perceive the issue of media framing of climate change and flood issues in Port Harcourt metropolis and its influence on media audience to a large extent, is as a result of how the media has “framed” their report in respect to their activities.

### **Conceptual Review**

#### **Climate Change**

Our climate is in a deteriorating state. It is not what it was and there is urgent need to inform the public about the causes of this climate change and how rising temperature affects the environment which in turn affects our lives. Although the consequential effect of this sometimes may be immediate, but the steady decline of the environment due to human activities is certainly going to be worse in the future. However, there is hope to avert future catastrophe if humans change their activities on the environment, but such wake-up calls so far have been futile (Ogwezi *et al.*, 2022). Human activities have bred earth's toxins, greenhouse gases, and production of vast amount of waste. There is no sign of slowing down or stopping and the impacts of climate change on humans, plants and animals are alarming. Specific evidence about global warming and its adverse effect on human activities have been confirmed severally. The present day earth is aflame with heat waves, wildfires, floods and frequent hurricanes. While global warming is directly impacting the health and environments of all species, the modern world appears to be living in a constant state of denial and weird positivism, simply waiting for someone else to take action (Ogwezi *et al.*, 2022).

#### **Emerging Flood Disaster**

Generally, flood is an overflowing or eruption of a great body of water over land not usually submerged (Daniel & Udo, 2019). It is an extreme weather event naturally caused by rising global temperature which results in heavy down pour, thermal expansion of the ocean and glacier melt, which in turn result in rise in sea level, thereby causing water to inundate coastal lands. Flooding causes inundation and harm to plants and animals, including man, buildings and infrastructure (Ujene & Oguike, 2020). However, flooding is a global natural hazard that has affected lives, led to the loss of properties and extinction of species in the environment. In fact, flooding is a threat that affects the quality of the environment. Given the issues relating to flooding, it is regarded as a factor that is used in defining environmental quality of residential neighbourhoods. Other environment hazards include drought, desert encroachment, soil erosion and tsunamis.

#### **Media and Climate Change**

The media can play key role in public education of climate change which can induce and bring about positive contribution to understanding the seriousness of climate change and its impact.

Yadav and Rani (2011) posit that the media in their war against climate change can focus on causes of environmental problems as well as their adverse impacts on humanity. The mass media can act as catalysts in enlightening the masses on climate change. They can report global warming, green peace movement, depletion of the ozone layer, green-house gases effect, acid rain, etc (Yadav & Rani, 2011). The mass media can equally report on the need to show restraint by humans in their use of the natural resources. They can as well play vital role in climate change reportage in time of disaster. In fact, they can give accurate and objective reports during pre-disaster, during the disaster and during post-disaster. These are with the intent to reduce tension and reduce the adverse effects of such disaster.

### **Empirical Review**

Ogwezi *et al.*, (2022) carried out a study on “Patterns of broadcast media reportage of climate change issues in Lagos, Nigeria from 2016 to 2018: an evaluative study.” The objectives of the study were to evaluate the pattern of frequency of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018, and ascertain the pattern of time allocation in minutes for the reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018. The study adopted qualitative research method which analysed news bulletins, jingles, documentaries, paid announcements and other special programmes on issues of climate change which were aired by the selected broadcast media from 2016 to 2018. The study found that the selected broadcast media in Lagos, Nigeria decreased their frequency of reportage of climate change issues in the period under study. The study equally revealed that the selected broadcast media in Lagos, Nigeria again reduced time allocated in minutes for the reportage of climate change issues within the period of the study. The study also revealed that there were similarities in the pattern of reportage of climate change issue from 2016 to 2018. The study further indicated that the different broadcast media had significant degrees of differences in time allocated for reporting climate change issues from 2016 to 2018. The reviewed study and the current study are both related as the focus broadcast media messages and climate change. But whereas the reviewed study focused on patterns of broadcast media reportage of climate change issues in Lagos, Nigeria from 2016 to 2018: an evaluative study, the current study focuses on effective broadcast media messages on climate change and emerging flood disasters in Port Harcourt metropolis. The difference is on the objectives, scope and methodological approaches.

Ayomide (2022) conducted a study on “Analysis of television media coverage of flood in Nigeria.” The objectives were to know the format through which the media covered the floods in Nigeria, and ascertain the depth of relevance attached to the coverage through the media timeframe among others. The researcher carried out a quantitative analysis of audio-visual media reportage of two major television media broadcast in Nigeria to analyse the different frames used in the mode of reportage during flooding by these media houses. The choice of media house were private and public media organization with a view to make a comparative analysis in the mode of their reportage. Using purposive sampling method, data from July-August 2022 on flood were analysed because this was the period the disaster was more pronounced in the country. Data from the content analysis indicated that there is frequent coverage of flooding by broadcast media in Nigeria. Disaster coverage with an emphasis on Flood coverage has become an issue in society, media houses use their channel to reach out to their audience. That the media always attached relevance to the reportage of floods in Nigeria, from the findings gathered and data presented, broadcast media in Nigeria has been instrumental in the coverage of flood in Nigeria, thereby bringing information to the audience as it unfolds. The findings show that both government and private media are committed to the

coverage of flood disaster in the country. The reviewed study and the pioneer study are both related as the hinged on broadcast media coverage and flood issue in Nigeria. But whereas the reviewed work centred on analysis of television media coverage of flood in Nigeria, the pioneer study centres on effectiveness of broadcast media messages on climate change and emerging flood disasters in Port Harcourt metropolis. The areas of divergence are on objectives, scope, and methodologies.

Akpan *et al.*, (2012) did a work on “An analysis of the influence of the Nigerian mass media on public understanding of climate change.” The study assessed the influence of Nigerian media on public knowledge of climate change. The work acknowledges that public understanding of climate change is a prerequisite to taking voluntary action to mitigate its effects. The work therefore sought to ascertain the specific ways in which Nigerian media reportage of climate change had influenced public knowledge of the subject matter. A survey was conducted in Abuja, Enugu, Ikeja and Port Harcourt. Editors of four newspapers in Nigeria were interviewed. Results indicated that the mass media did not rank the highest as sources of information for the audience on climate change, and they (media) did not significantly influence public knowledge of climate change. The reviewed work and the present study are both related as they focused on mass media and climate change. But the reviewed study focused on analysis of the influence of the Nigerian mass media on public understanding of climate change, the present study focuses on effective of broadcast media messages on climate change and emerging flood disasters in Port Harcourt metropolis. The difference is on the objectives, scope and methodological approaches.

### **Methodology**

This study adopted the analytical descriptive survey design. The population of Port Harcourt metropolis according to Port Harcourt Urban Area Population Projection in 2023 stood at 3,480,000. The sample size of 400 was drawn using Taro Yamane mathematical formula and multi-stage sampling technique was used to select the respondents for the study. The multi-stage sampling technique involves the process of dividing the study population into a large groups and clusters. The street map of Port Harcourt metropolis was downloaded from Google maps and the map was divided into 22 areas using a grid made up of squares. The grid was numbered and eight areas were selected using lucky dip. Every street on each of these eight sampled areas was numbered and eight streets randomly selected through another lucky dip. The houses located on each of the sampled streets were further numbered and assigned a number each and another lucky dip carried out to select six houses from each of the street where respondents would be selected from. The instrument of the study was the validated designed questionnaire. The data analysis was done using descriptive and inferential statistical analysis. In other words, contingency tables were used to present data obtained from the questionnaire which was quantitative method. To measure extent, a scale was constructed using weighted mean score, where score of 0 – 2 was very low, 2.1 – 2.49 low, 2.5 – 3 high and 3.1 – 4 was very high.

### **Data Presentation and Analysis**

**Research Question 1:** what is the level of awareness among Port Harcourt metropolis residents on the broadcast media messages towards climate change?



**Table 1: Heard or Watched Broadcast Media Messages on Climate Change in Port Harcourt Metropolis**

Status	Frequency	Percentage (%)
<b>Yes</b>	387	100%
<b>No</b>	0	0%
<b>Uncertain</b>	0	0%
<b>Total</b>	<b>387</b>	<b>100%</b>

From the Table 1, all the respondents agreed to have heard or watched broadcast media messages on climate change in Port Harcourt metropolis.

**Table 2: Level of Awareness of Broadcast Media Messages on Climate Change in Port Harcourt Metropolis**

Options	Rating	No of Respondents	Percentage
Very High	100 – 80	27	6%
High	79 – 59	122	32%
Low	58 – 38	225	59%
Very Low	37 – 1	13	3%
<b>Total</b>		<b>387</b>	<b>100%</b>

From the above table, majority of the respondents had heard or watched broadcast media messages on climate change in Port Harcourt metropolis to a low intensity.

**Research Question 2:** what is the level of knowledge the Port Harcourt metropolis residents have through the exposure to broadcast media messages on climate change programme? In analysing this research question, the effects of the climate change including the non-effects were address to test the respondents’ knowledge and grade them into levels.

**Table 3: Level of Knowledge Port Harcourt Residents has on the Broadcast Media Messages on Climate Change**

Issues of Climate Change and Flood Disasters	No of Respondents	Percentage	Level of Knowledge
15 correct options	49	12%	Very high
10 correct options	91	23%	High
5 – 4 correct options	142	37%	Low

3 -1 correct options	105	27%	Very low
No correct option	-	-	-
Total	387	100%	

As indicated in the table above, the level of knowledge Port Harcourt residents acquired on broadcast media messages on climate change is low.

**Research Question 3:** what is the perception of Port Harcourt metropolis residents on the broadcast media messages on climate change?

**Table 4: Perception of Port Harcourt Residents on the Broadcast Media Messages on Climate Change**

S/N	Items	SA	A	D	SD	$\bar{x}$	StD	Remark
1.	My perception of broadcast media messages on the climate change is that it is aggressive	0 (0)	0 (0)	152 (304)	248 (248)	1.38	0.21	Disagreed
2.	My perception of broadcast media messages on the climate change is that it encourages public participation	156 (624)	190 (570)	54 (108)	0 (0)	3.26	0.68	Agreed
3.	My perception of broadcast media messages on the climate change is that there is no supportive synergy among stakeholders.	148 (592)	192 (576)	52 (104)	8 (8)	3.20	0.73	Agreed
<b>Grand Mean</b>						<b>3.28</b>		<b>Agreed</b>

Data in table 4 revealed that the residents perceive broadcast media messages on the climate change in Port Harcourt metropolis encourages public participation and supportive synergy among stakeholders to make the message effective but do not perceive the messages as aggressive.

**Research Question 4:** what is the effectiveness of broadcast media messages on climate change in influencing behaviour of Port Harcourt metropolis resident?

**Table 5: Effectiveness of Broadcast Media Messages on Climate Change in Influencing Behaviour of Port Harcourt Residents**

S/N	Items	SA	A	D	SD	$\bar{x}$	StD	Remark
1.	Created awareness on construction of artificial channels to divert flood water	146 (584)	172 (516)	64 (128)	18 (18)	3.12	0.83	Agreed
2.	Promoted building reservoirs or ponds to hold extra water during flood	152 (608)	189 (567)	54 (108)	5 (5)	3.22	0.72	Agreed
3.	Engendered erection of drainage system to ease water flows	149 (596)	165 (495)	76 (152)	10 (10)	3.13	0.80	Agreed
4.	Enhanced consciousness of avoiding dredging natural resources around residential areas	151 (604)	192 (576)	57 (114)	0 (0)	3.24	0.68	Agreed
5.	Gave rise to ensuring proper environmental sanitation	163 (652)	177 (531)	53 (106)	7 (7)	3.24	0.74	Agreed
<b>Grand Mean</b>						<b>3.19</b>		<b>Agreed</b>

Data in Table 5 above showed the effectiveness of broadcast media messages on climate change in influencing behaviour of Port Harcourt metropolis resident were through creation of awareness on construction of artificial channels to divert flood water, building reservoirs or ponds to hold extra water, erection of drainage system to ease water flows, avoiding dredging natural resources around residential areas and ensuring proper environmental sanitation.

### Discussion of Findings

In order to achieve the central aim of this study, a total of four research questions were set in this study, each corresponding to a specific objective set. The quantitative data gathered for this study adequately provided answers to the research questions in this study.

The first objective of this study seeks to ascertain the level of awareness among Port Harcourt metropolis residents on broadcast media messages towards climate change. In relation to this objective, a research question was raised thus; what is the level of awareness among Port Harcourt metropolis residents? Findings that answered the research question showed that majority of the respondents have heard and watched the broadcast media messages on climate change, and the level of awareness among Port Harcourt residents was low. The imputation here is that the broadcast media messages are such that have attracted the attention of people, even with this, the awareness was low. This finding is in tandem with the study of Akpan *et al.*, (2012) that the mass media did not rank the highest as sources of information for the audience on climate change, and they (media) did not significantly influence public knowledge

of climate change. Also, the social responsibility theory upon which this study is anchored gives backing to this finding. The theory proposes that without proper framing, representation and indeed, reportage of climate change and flood issues as an environmental degradation would continue to bestride the society and this would no doubt be seen as an indictment on the press for non-performance. The framing theory also support this finding of this study as it proposes that the way an information is presented (framed) determines the way people understand such message.

The study second objective inquired about the level of knowledge the Port Harcourt metropolis residents have through the exposure to broadcast media messages on climate change. Findings in relation to this objective and its corresponding research question revealed that the level of knowledge Port Harcourt residents acquired on broadcast media messages on climate change is low. This finding refutes the finding of Ayomide (2022) when he stated that the media always attached relevance to the reportage of floods in Nigeria and broadcast media in Nigeria has been instrumental in the coverage of flood in Nigeria, thereby bringing information to the audience as it unfolds. While this finding aligns with Ogwezi *et al.*, (2022) that the selected broadcast media in Lagos, Nigeria decreased their frequency of reportage of climate change issues in the period under study. The agenda setting theory that underpinned this study gives backing this finding. The theory posits that the fact that the mass media are charged with the responsibility of investigating, reporting and alerting members of the public about unfolding developments or events in the society. It therefore, behoves on the news media to perform this obligation to the society with all sense of seriousness.

The third objective explored to determine the perception of Port Harcourt metropolis residents on the broadcast media messages on climate change. In relation to this objective, a research question was raised and the finding revealed that the residents perceive broadcast media messages on the climate change and emerging flood disasters in Port Harcourt metropolis encourages public participation and supportive synergy among stakeholders to make the message effective but do not perceive the messages as aggressive. This finding corroborates the outcome of Ayomide (2022), when he stated that both government and private media are committed to the coverage of flood disaster in the country. This upholds the framing theory which helps us to understand that the way mass media audience perceive the issue of media framing of climate change and flood issues in Port Harcourt metropolis and its influence on media audience to a large extent, is as a result of how the media has “framed” their report in respect to their activities.

Finally, the fourth objective was streamlined to evaluate the effectiveness of broadcast media messages on climate change in influencing the behaviour of Port Harcourt metropolis residents. In line with the corresponding research question, finding showed that the effectiveness of broadcast media messages on climate change in influencing behaviour of Port Harcourt metropolis resident were through creation of awareness on construction of artificial channels to divert flood water, building reservoirs or ponds to hold extra water, erection of drainage system to ease water flows, avoiding dredging natural resources around residential areas and ensuring proper environmental sanitation. This finding upholds the study of Ayomide (2022) as revealed that there is frequent coverage of flooding by broadcast media in Nigeria. Disaster coverage with an emphasis on Flood coverage has become an issue in society, media houses use their channel to reach out to their audience. This finding lend credence to the framing theory that keystone this study. The theory states that the framing theory helps us to understand that the way mass media audience perceive the issue of media framing of climate change and flood issues in Port Harcourt metropolis and its influence on media audience to a

large extent, is as a result of how the media has “framed” their report in respect to their activities.

### **Conclusion**

Based on the findings of this study, the study concluded that broadcast media messages in terms of awareness and knowledge are low and the residents have much information, however, the little done is been perceived by them to change their behaviour positively on climate change and emerging flood disasters by taking preventive measures. Mass media precipitate widespread awareness and as such served as veritable media for social mobilisation. But the citizens did have enough information on climate change and emerging flood disasters, hence they see the broadcast media messages as not aggressive or effective.

The study equally concluded that broadcast media messages as passing information to the public in order to create awareness about environmental issues (climate change) play a significant role in the role in the society. It can influence individual, government or community decisions that positively affect or impact on environment. Thus, it aimed to primarily change knowledge, awareness and attitudes, contributing to the goal of changing behaviour. It is a tool for promoting environmental health and is being widely used to expose high proportions of large populations to message through routine uses of existing media and one medium cannot effectively carryout a public enlightenment.

The study finally established that climate change and emerging flood disasters are problem that is making genuine concern for both individuals and the government everywhere throughout the world. The broadcast media did not give adequate attention to issues of climate change and emerging flood disasters in Port Harcourt metropolis. Citizens did not give enough attention to the broadcast media messages on issues of climate change and emerging flood disasters. Therefore, it can be established that the broadcast media, that is, both radio and television did not give the desired and serious attention that issues of climate change and emerging flood disasters deserve.

Since the findings did not augur well for the broadcast media’s fight against climate change and their impacts, it has a negation of the tenets of the agenda setting theory as propounded by Walter Lippman in 1922. In addition, it is not healthy for the actualisation of improved education, awareness-raising as well as human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning, in order to take urgent action to combat climate change and its impacts.

### **Recommendations**

Based on the findings from the study, the following recommendations were made.

1. Prompt and increased awareness of the citizens on climate change remains the sure way of enlightening them on preventive measures to reduce the extent of effects.
2. Relevant authorities and development agencies should always bridge information gap to provide the basic knowledge of climate change.
3. Broadcast media should devise easy means of reaching out to the people to create sufficient enlightenment in case of an emergency such as climate change.
4. Citizen should always place premium on their environment and react positively to media messages on safety or preventive measures during emergency like climate change.

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