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Broadcast Messages on Natural Disasters and Public Prevention of Disasters in Bayelsa State, Nigeria

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Abstract

The study investigated broadcast Messages on natural disasters and public prevention in Bayelsa State, Nigeria. Four specific objectives were raised for this study, they are; to find out the most frequently reported natural disaster messages carried by broadcast media, to determine Bayelsa state residents' perception of natural disaster messages on broadcast media, to ascertain if broadcast media communication of natural disasters in the state enhances preventive measures by residents and to find out the challenges of Bayelsa residents in adopting the desired precautionary measures for preventing/mitigating natural disaster. Anchored on Agenda Setting Theory and Yale's Persuasion/Attitude Change Theories, the research adopted a mixed method using both content analysis and survey methods as design. The universe for the content analysis of the study are all 365 daily broadcast news editions aired in broadcast media in Bayelsa State from January to December, 2023. The population for survey was residents of Bayelsa States in Nigeria puts at 2,537,400 using a sample size of Philip Meyer's 384. The research instrument chosen for the study is questionnaire. Findings revealed that the most frequently reported natural disaster in Bayelsa State is flooding, followed by ocean surge. Findings also revealed that Bayelsa State residents are exposed to natural disaster messages but their perception about broadcast media messages on natural disaster is negative, and the people do not adopt the media messages to gratify their information need for preventive/precautionary measure against natural disasters. Based on the findings, the study recommends that broadcast media should project and restrategise their agenda setting function role in the communication of natural disaster messages, while local media should also be exploited in communicating issues of natural disaster and

prevention. NGOs, government and international bodies should collaborate with broadcast stations in education programmes on natural disasters.

Keywords*:* Broadcast media, Bayelsa State, Natural disasters.

Introduction

There is no doubt to the fact that Nigeria is one of the countries of the world that are experiencing environmental challenges in some states. Most of these challenges are resulting from climate change with its attendant impacts. Such environmental problems are evident in the different natural disasters experienced by different areas and states in the country among which is Bayelsa State. The State being part of the marine ecosystem experiences some environmental challenges, the major ones being the natural disasters coupled with attendant effects that deterred the progress and development of various areas in the state. Such natural disasters include; hurricane, flood, land degradation, heat waves, ocean surge, lightening, wild wind and storms. These exert negative impact on lives and property in the country. Such negative impact include displacement of most indigenes and residents of the state, lost of lives and property. , and deterred development.

On several occasions, the Nigerian Meteorological Agency (NIMET) and the National Emergency Management Agency do predict and make periodic announcement concerning certain natural disasters. More so the NDDC has drawn attention of the governments, communities and citizens to natural disasters warning. Disasters and weather forecast were issued in 2019, 2020, 2021 and 2022 prior to the devastating floods that swept through the some states in Nigeria in October, 2022 (Daily Post April, 2023).

These notes of warning by government and other agencies were proactive, and aimed at generating awareness and activities that could protect and prevent the environment from certain natural disasters and their negative effects.

Taking cognizant of these, Nigeria as a whole, Bayelsa State inclusive has in various ways been engaging in certain activities that could reduce effects of climate change in order to achieve an improve and healthy environment. Such activities include joining the global community to mark world environment and habitat days. The Federal Government of Nigeria also instituted the ecological fund to be spent on checking marine and gully erosion, landslides, drought, floods.

The formulation of national policy on environment and establishment of Niger Delta Development Commission which Bayelsa is a member state, in 1999 has, as a prime mandate, which is the protection of fragile ecosystem. In spite of all these, Nigerian environment continuously suffers from natural disasters. The country has consistently experienced loss with other devastating effects from natural disasters. The United Nations Conference on Environment and Development (UNCED) in its 1997 report stated that "the long term loss to Nigeria from environmental degradation (natural disasters inclusive) has an estimated 15 billion US dollars annually (Batta 2013, p.258).

There are many ways in which the media can reach and assist in preventing negative effects of climate change and its attendant effects in the Bayelsa State. Among such is the use of Broadcast Media in communicating towards creating awareness, enlightenment and persuasion on natural disasters caused by natural elements due to climate change and rise in earth temperature making Bayelsa State, a low-ling coastal cities in Nigeria to frequently experience some disasters and also cause climate alteration (Wilson and Batta, 2013).

The broadcast media which are audio and audio-video media with added advantage over all other media of mass communication are expected to give wider coverage to find out the causes, consequences and preventive measure to educate inform and persuade the populace into actions to prevent disastrous issues in Nigeria. In today's world the duty of information dissemination to people is one of the major responsibilities of the media institutions. This they do through direct and indirect campaigns through the use of various programmes such as news, discussion, documentary which are all platforms for campaigns on environmental issues. The broadcast media through these, play the critical roles of informing, educating, interpreting and alerting the populace on impending natural disasters, with the aim of creating awareness/enlightening the people how to be on the alert and guard against certain natural disasters. Media have the capacity of setting agenda on environmental issues including natural disasters and communicating the effects of natural disasters in Nigeria including Bayelsa State.

Considering the loss and devastating effects of natural disasters in Nigeria, the United Nations Commission on Sustainable Development in Nigeria in its 1997 reports states, "to enlighten, educate and create awareness of the Nigerian populace, the media must be involved in campaigning and communicating on the environmental issues. Such media communication is aimed at enlightening the populace on how to guard against certain natural disasters that are detrimental to them". This in other words confirms that the media plays critical roles of informing people and interpreting certain information and alerting the populace on impending natural disasters of environmental significance.

In view of the above, how does the audience perceive broadcast media communication of natural disasters, and to what extent do broadcast media communication of climatic issues like natural disasters help the people imbibe actions and activities that can prevent natural disasters in Bayelsa State. This therefore constitutes a problem which this study seeks to address.

Theoretical Framework

This paper is anchored on Agenda Setting Theory, and Persuasion and Attitude Change Theory. The Agenda Setting Theory was proposed by Maxwell McCombs and Donald Shaw in 1972. This theory assumes that the media sets agenda for the public on topical issues to follow the media. It holds that most of the pictures and information we store in our brains, most of the things we think about, most of the issues we discuss and even most of the decisions and actions we take are based on what we have read, listened to or watch in different mass media (Orjih, 2019, p.402)

Maxwell McCombs and Donald Shaw are of the opinion that in choosing and displaying news; editors and or broadcast news editors/producers play an important part and role in shaping realities. In essence, the theory proposes that the public agenda or the kind of things people discuss, think, worry about or plan to do is powerfully shaped and directed by what the media choose to publicise (Wimmer& Dominick, 2006)

The Agenda Setting Theory is therefore relevant to this paper because it averts that the media, (the broadcast media) are capable of setting natural disasters' prevention and control measures as public agenda with the view of engendering the necessary behavioural change. The effect is that the broadcast media contents and communication are capable of telling the audience to think about natural disasters occurrence in their environments, their prevention and adoption of control measures to mitigate environmental natural disasters.

This work also relates to Persuasion and Attitude Change Theories. This theory Persuasion and Attitude Change Theory is the use of messages to influence audience. According to Nweke (2001, p.132), persuasion is a systematic and skillful method of creating

awareness aimed at changing or strengthening opinions, attitudes, beliefs or values, for a more positive outcome. Asemah, Nwammuo & Nkwam-Uwaoma (2017) on their part see persuasion as a skillful presentation of ideas and messages, with the various publics, with the intention of producing the desired result. This is to say that persuasion messages are initiated with the intention of making the recipient to voluntarily accept and internalize new ideas, beliefs values and attitudes, in order to act in the desired way towards realizing the ultimate reward for the communication effort. All these suggest that persuasion is a psychological concept, which depends on use of message or information to alter persons' behavior and the ability to control human behaviour towards a thing or issue which is the underlying matter in the theory of persuasion. This theory is relevant tothis work on the ground that the broadcast mediacan skillfully get its Bayelsa audience informed about natural disasters and provide a feed forward that can help the people to voluntarily accept the broadcast media messages and form opinion/attitude that can help mitigate natural disastersand the impacton their environment. By this theory, the broadcast media through its messages has the ability to control and change the people's behaviour towards preventing natural disasters and its negative impact in their areas.

The Study Area: Bayelsa State

Bayelsa State is geographically located within latitude 4A◦15' North and latitude 5A◦23' South. It is also within longitudes 5A◦22' West and 6A◦45'East.Bayelsais a state in the south-south region of Nigeria, located in the core of the Niger Delta. The state is shares boundary with Rivers State to the east, and Delta State to the North across the Niger River for 17km and the Forcados River for 198km, with the waters of the Atlantic Ocean dominating its southern boarders. The major geological characteristic of the state is sedimentary alluvium. It is a lowland state, characterized by tidal flats and coastal beaches and beach ridge. Rainfall inBayelsa state varies in quantity from one area to another. The state experiences equatorial type of climate in the southern the most part and tropical rain towards the northern parts. The state comprises 8 Local Government Areas.

Being in the Niger Delta, Bayelsa State is at the base of all flooding states in the Niger Delta Region making it the end receptacle of flooding in the region. It has a riverine and estuarinesetting, with bodies of water within the state preventing the development of significant infrastructure.

Human activities in Bayelsa State are largely determined by natural conditions and other ecological opportunities making fishing their major occupation. As a state in the oil-rich Niger Delta, Bayelsa state's economy is dominated by petroleum industry. The state is the site of Oloibiri oil field where oil was first discovered in Nigeria and produces about 40% of the Nigeria's oil. Bayelsa State has the largest gas reservoir (18 trillion cubic feet) in Nigeria (Bayelsa Article Talk, 2024).

Natural Disasters and the Environment

Natural disasters are those natural occurrences that can causes loss to lives of man, animals and property within an environment. According to Drury (2018, p.18) natural disasters are the catastrophic events that can shock communities, states and countries while also making humanity depressed. These mean that during natural disaster, all living and nonliving things including plants and animals and the entire ecosystemin an environment are affected as they all feel the impact. Natural disasters also lead to significant environmental degradation and deprivation. Although some natural disasters are sometimes predicted based on their periodic occurrences at certain periods, majority of them are mostly unexpected in some areas and

environment. It is also worthy of note, that natural disaster does more harm than good and such harm and dangers include; destruction to vegetations, farming , mining and widespread injury to human beings and animals. Drury (2018) also points out that natural disasters such as wild fires (fireoutbreak) destroy animate and inanimate environments. According to him, natural disasters constitute serious, dangerous and non-tolerable phenomena that frequently occur on planet earth, causing unexpected deaths to thousands of people within a moment and most times causes relocation/inconveniences and render many homeless. This informs the reason he describes natural disasters as the catastrophic events that shock communities, states, and countries and making humanity putting humanity into depression. Smolka (2006) on his part defines natural disaster as an abrupt disastrous event that seriously disturbs the working of a community or society and causes human, material, and commercial or environmental losses. He also explains that during natural disaster occurrence, society or a community suffers severe scarcity of food and other elementary necessities of life due to mishaps that affect the normal functioning of the society or community, making the societ upset and unable to function properly without mediation and intervention. Though natural disasters are often caused by nature, Smolka is of the opinion that some natural disasters have human source as they are triggered by man. This means that man has certain role to play in preventing and guarding against natural disasters occurrences considering the crisis such as deaths, injuries, sicknesses, damages to property, food scarcity, displacement of persons and malfunctioning of the entire system of the environment where natural disasters occur.

Natural Disasters and the Media

The media has numerous roles to play for the growth and development of the society. Such roles include informing, educating/enlightenment, entertaining, cultural promotion, surveillance and correlation role among others. In Nigeria, Bayelsa State inclusive, both public and private media are involved in performing these roles and most of them are known for being manipulative and sentimental in covering and reporting crisis/disasters in communities and societies. These they do through various programmes such as news, documentaries, spot highlight etc. in broadcast media. These programmes vary from one media to another with different methods of production and reporting due to station's method of operation and house style which can be made manifest in the sounds, visuals/pictures, headlines in terms of print media, choice of words and handling of reportage etc. These, most times are treated with sentiments and manipulations and the result will be inadequate information that can not attract the action of non-governmental agency and even government for proper policy making nor positive action from people (Lyytimaki, 2012).

In other words, such news reportage or programmes on natural disasters in Bayelsa state cannot enhance government attention and the needed policies on natural disasters in the said area. This results in making the annual andcontinuous natural disasters become a norm and acceptable in Bayelsa State. One of the major roles of the mass media which is the surveillance function states that the media or the press plays the observing/watch dog function which is relevant for enforcing economic, cultural, political and even environmental peace and stability in a state or country. This is to say that the media highlight the aspect of society or community occurrence, events, people and even issues which they gather information and report as news or show as programmes. Despite these functions and activities of the media, most of the environmental issues which the media cover almost on a yearly basis and information they give on such issues seem not not attract meaningful or positive changes that can enhance

environmental protection that can prevent reoccurrence of most environmental issues and even disasters, from both government and the public angles.

Taking cognizant of these, there is no controversy to the fact that there has been and there are quite a number of environmental related natural disasters occurrences in Bayelsa State that are reported and those that go unreported, the reason may not be unconnected with the influence of government and that of the companies operating in the area, although the media (radio, television and print) themselves may not be completely exonerated from the blame. This informs the words of Djankov, Macliesh, Nenova&Shliefer (2003). The reason being that the media has vital roles to play in environmental disasters management and control through enlightenment awareness programmes, identifying and showcasing photos/videos of extent of the crisis, the level of impact and increase on the environment and as well send the warning/recommendations needed for the prevention by people and government. In other words, the media, the people and the government are important in the management and prevention of natural disasters for the benefits and growth of the environment. The words of Ali (2003) is a proof to this, where he states that the media and non-media sources are useful for disaster risk reduction whether in social media, television, radio, printed newspaper or online newspaper, mobile phones, family meetings and government. This is to say that for effective communication of natural disasters information, Public enlightenment and awareness as well as campaigns and advocacy programmes by the media are crucial. The media have vital roles to play before, during and after environmental disasters. They need to enlighten the people to be fully informed on the prevention and proper management of disasters to avoid reoccurrence, reduce exposure, ensure effective prevention and avoid hazards/negative impacts associated with it.

The effects of natural disasters do not spare anyone in most cases, all ages, and genders including young and old, men and women are always affected as they all must feel the impact in one way or the other. This informs the reason the media both print and broadcast need to play active role for the purpose informing, educating and enlightening the large and heterogenous public before, during and after environmental disasters. This is because adequate, timely and effective warnings about disasters through the media before a disaster can result in adequate preparedness that can help arouse active participation in disaster response and mitigating against environmental disasters. It can also save lives and reduce economic losses. The media needs to understand and be up to its roles and responsibilities of information dissemination and ensure its surveillance and correlation functions in this regard, while access to the media must not be taken for granted to avoid grape vines and rumours before, during and after disasters in any environment.

Therefore this study is aimed at investigating the perception of Bayelsa State residents on broadcast media communication of natural disasters and whether the broadcast informs adaptation action by the audience. Therefore, the questions these research sought to provide answers to are:

1. Which is the most frequently reported environmental natural disaster(s) messages by broadcast media in Bayelsa State?
2. What is the perception of Bayelsa residents on broadcast communication of environmental natural disaster(s)?

3. To what extent do Bayelsa residents' exposure to broadcast media communication of natural disasters enhances adoption for preventive against natural disaster in Bayelsa state?
4. What are the challenges of Bayelsa residents in adopting the desired precautionary measures for preventing/mitigating natural disasters as promoted by broadcast media?

Methods

This research adopted a mixed method as the design for the study. The aim is to use both content analysis and survey so as to provide a stronger validity for the study. The justification for this method is based on the view of Cresswell & Clark (2007) that, using content analysis and survey approaches together provides a better understanding of the research problems than either of the approaches alone.

News editions or bulletins of radio and television stations in Bayelsa State about natural disasters were content analysed. The universe of the content analysis component of this study comprised all the editions of news bulletins produced in the year 2023. The reason for the choice of 2023 is because it was the most recent during commencement of this study. The news bulletins/editions within the year 2023 were aired daily in a total of seven broadcast media (radio and television) at different times. So, in 365 days of the year, news were aired 365 times being the population for the study. Considering the size of the population for the content analysis, it was difficult to study the entire population, hence the need for sample. Therefore, the researcher resorted to using 50% of 365 total population of the news editions which gives a sample size of 182 editions for the study and 26 sample editions for each broadcast media in Bayelsa State. The choice of 50 % the population for sample size was based on the suggestion of Israel (1992) that 50% of population can be taken as sample size, the author also adduced that a population of .5 indicates a maximum variability of broadcast news. Hence, a sample size of 183 editions of news from the population of 365 editions of news or news bulletins of news aired in 2023. In order to select the 182 sample editions for the seven functional broadcast media under study, a systematic sampling technique of one week skip interval was applied in the selection starting from the second week of the year 2023 which arrived at the following dates: January 14, 28 ; February 11, 25; March 11, 25; April 8 22; May 6, 20; June 3,17; July 1,15, 29; August 12, 26; September 9, 23; October 7, 21; November 4, 18 ; December 2, 16, 30 .

The survey method aspect investigate how residents of Bayelsa state perceive broadcast media communication/messages on natural disasters and how these communication enlightens them to guard against such occurrences and their perceived effects. Survey research design with questionnaire- containing both open and close ended questions was used as instrument of primary data generation for this study. The population of this study constitutes the 2,537,400 residents of Bayelsa. (NPC Bayelsa, 2022)

Due to large size of the state's population (2,537,100), a 384 sample size using Philip Meyer's 384 table at 95% level were drawn from the population. The study adopted multi-stage sampling technique in which a sample of units is drawn by taking series of simple random samples (using purposive, simple random, proportionate stratified and convenient sampling techniques) to select the specific respondents for the study (Awotunde & Ugodulnwa, 2004). This means that random selection of samples was done at more than one stage. Using this sampling technique provides the assurance that the population is evenly sampled among the eight local government areas.

At the first stage and to allow for better spread, the three senatorial districts in the state were purposively considered in the selection of the constituents for the study. Two Local Government Areas each emerged from the simple randomization process that followed. Consequently, six local government areas across the three senatorial districts emerged from the process. To this end, the local government areas that emerged are; Ogbia, Nembe (Eastern senatorial district), Yenagoa, Kolokoma/Opokuma (Central senatorial district), Sagbama, Ekeremor (Western Senatorial district). At the next stage, purposive sampling was deployed to select the local government headquarters. This is based on the fact that those in the headquarters are better equipped to offer appropriate answers to the research questions. The selected local government headquarters are Ogbia town, Ogbolomabiri, Yenagoa, Kaima, Sagbama towns and Similarly, because of the differences/variations in the population proportion of the six selected local government areas, distributing the sample evenly to the local government areas would result in an unfair representation, hence, proportionate stratification was adopted to determine the number of copies of questionnaire that goes to the select local government areas based on the quotient of their population. The formula for the proportionate sample size is:

$P = \frac{ns}{N} \; x \; M$

Resulting from this, the 384 copies of the questionnaire were distributed as follows; Ogbia- 58, Nembe- 42, Yenagoa- 113 Kolokuma- 25, Sagbama- 60, Ekeremor 86.To overcome the issue of accessibility that arose and ensure a better spread, purposive and convenient sampling techniques were then adopted to select the respective locations and individual respondents who filled the copies of questionnaire in each of the select local government areas. Purposive sampling technique was selected because the researcher targeted respondents at major locations: institutions (offices, schools), markets, sea port and houses from which the researcher relied on convenient sampling to administer the research instrument. However, the researcher also relied on two research assistants who were appropriately instructed and motivated to administer the research instruments. It took the researcher and assistants a period of two weeks to complete the task. The data collected were analysed using frequency tables and simple percentages.

Result

Content analysis of broadcast media news bulleting about natural disasters show that flood is the highest reported incident in the news while there are reported case of earth quake of drought during the study period. See Table 1 for details.

Table 1: Natural Disasters Stories by Broadcast Media in Bayelsa State 2023

Broadcast Media	**Total News Editions analysed**	**Ocean Surge**	**Flood**	**Earth Quake**	**Drought**	**Tornadoes**
NTA	26	6	19	-	-	3
NDTV	26	3	14	-	-	2
AIT	26	5	18	-	-	2
People FM	26	6	11	-	-	2
Radio Bayelsa	26	5	17	-	-	3
Royal FM	26	7	13	-	-	2
Rhythm FM	26	4	11	-	-	1
TOTAL	**182**	**36**	**103**	-	-	**15**

The implication of table 1 is that broadcast media in Bayelsa State reported flood disaster more than other natural disasters in the state . This was followed by ocean surge.

For the survey data, out of a total of 384 copies of questionnaire that were distributed in the select areas, 356 were retrieved and found useful, representing 92.7% return rate, 28 copies of the questionnaire were not returned or found useful for the analysis. Therefore, the presentation and analysis of the data was based on the 356 correctly filled and returned copies of the questionnaire.

Table 2: Most Frequently Occurred Natural Disaster(s) and Respondents' Exposure to Broadcast Media Information on Environmental Natural Disaster(s)

RESPONSE	**FREQ.**	**%**
Most frequently occurred natural disaster(s) in Bayelsa		
Ocean surge	21	5.8
Flooding	332	93.2
Earthquake	-	-
Drought	-	-
Tornadoes	3	1
Total	**356**	**100**
If respondents have heard or experienced natural disaster in Bayelsa State		
Yes	356	100
No	-	-
Total	**356**	**100**
If respondents listen to or watch broadcast media information on natural disasters	Freq.	**%**
Yes	348	98
No	8	2
Neutral	-	-
Total	**356**	**100**
Respondents' frequency of exposure to broadcast media information on natural disasters	Freq.	%
Very often	25	7.2
Often	222	63.8
Rarely	78	22.4
Very rarely	23	6.6
Don't see or hear any (none)	-	-
Total	**348**	**100**
Most frequent broadcast media reported natural disaster in Bayelsa State	Freq.	%
Ocean surge	25	7
Flood	318	91
Earthquake	-	-
Drought	-	-
Tornadoes	5	2
Total	**348**	**100**

The implication of the data on Table 2 is that flood, according to the respondents, is the most frequent natural disaster and the most broadcast media reported natural disaster than any other natural disaster in Bayelsa State based on their broadcast media exposure.

Table 3: Respondents' Choice of Media and Programmes Exposurse to Broadcast information on natural disaster(s)

Response	**Freq.**	**%**
Broadcast Medium through which respondents were exposed to natural disaster preventive/mitigative information		
Television	109	31.3
Radio	187	53.7
Social Media	52	15.0
Others	-	-
Total	**348**	**100**
Broadcast messdia programmes through which respondents were exposed to natural disaster information	Freq.	%
Jingles	71	20.4
Discussion programme	97	27.9
Commentaries	69	19.8
Drama	-	-
News	111	31.9
Others	-	-
Total	**348**	**100**

Data also show that respondents were more exposed to the broadcast media information on natural disaster prevention and mitigation via radio than any other broadcast media especially through news programme (Table 3).

Table 4: Respondents' Perception of Broadcast Media Information on Natural Disasters Control and Mitigation in Bayelsa State

Response	**Freq.**	**%**
If respondents believe broadcast media messages on natural disasters		
No	199	57.2
Yes	107	30.7
Neutral	42	12.1
Others	-	-
Total	**348**	**100**
Respondents' perception of broadcast media messages on natural disasters	**Freq.**	**%**
Positive	125	35.9
Negative	201	57.8
Undecided	22	6.3
Total	**348**	**100**

Table 4 indicate that broadcast communication of environmental natural disaster for prevention and mitigation was not perceived positively by the majority of respondents.

Table 5: Respondents' knowledge utilization of Broadcast Media Information on Environmental Natural Disaster in Bayelsa State

Response	**Freq.**	**%**
Respondents' knowledge about natural disaster after exposure to broadcast media information		
Very high	27	7.8
High	43	12.4
Low	247	70.9
Average	21	6.0
Very low	10	2.8
Total	**348**	**100**
Ratings of respondents adopting of preventive measures due to exposure to broadcast media information on natural disasters	Freq.	%
Very high	28	8.1
High	44	12.6
Low	245	70.4
Very low	22	6.3
Undecided	9	2.6
Total	**348**	**100**

Findings in Table 5 implies that broadcast media communication of environmental natural disasters did not influence Bayelsa people towards prevention and mitigation.

Table 6: Challenges to the adoption of Broadcast media information on Environmental natural disaster(s) in Bayelsa State

Response	**Freq.**	**%**
Challenges/cause of difficulty with adopting the broadcast media message for prevention of natural disasters		
Non comprehension of the messages	13	3.8
Inaccessibility of the messages	30	8.6
Power problem	101	29.0
Don't belief the messages	129	37.0
Misconception of the messages	70	20.1
Others	5	1.5
Total	**348**	**100**

Source: Field Survey, 2024

Table 6 confirms that lack of belief of broadcast media messages followed by inadequate power problem are the major causes of difficulty associated with adopting broadcast media messages on environmental natural disasters towards prevention and mitigation.

Discussion

The first research question is to 'Find out the most frequently reported environmental natural disaster by broadcast media in Bayelsa State'. Data in tables 1, 2 and 3 indicate that flood the most frequently reporting in broadcast message and by the respondents. The respondents indicated that they mostly experience flood and were most conscious of flood as the most common natural disaster they experience and also reported by the broadcast media in Bayelsa State.

Similarly, data on Table 2 shows that radio is the most popular broadcast media among the respondents as radio ranked first. This means people were exposed to natural disaster messages mostly via radio than any other broadcast media in the state. The table further reveals that among others; news, discussion programme, jingles and commentaries etc. in that order were the prominent programme channels through which people were exposed to broadcast media information on environmental natural disasters in the study area.

Perhaps, the high rate of flood as the most common broadcast media reported natural disaster may not be unconnected to the frequent flood expectations and occurrences in Bayelsa state (Bayelsa Article Talk, 2024). This also confirms the statement in Bayelsa Article Talk (2024).

It is expected that by mostly reporting flood disaster/crisis, Bayelsa people who are often exposed to the messages via broadcast media have gotten awareness on flood than other natural disasters. This shows that the media function of providing sensitization and education to the people on a wide range of issues is not diverse nor proactive as other natural disaster also occur and likely grow bigger if not tackled effectively.

Notwithstanding, the overall findings under this question is partly in tandem with Lyytimaki's (1992) assertion that the media (both private and public) are known for being sentimental and manipulative in reporting or covering environmental crisis in communities. The inadequacy in covering and educating the public on other natural disasters as they do on floodings and flood related crisis may be attributed to the fact that floods remains the most impacted natural disaster which constitutes a major environmental issue in Bayelsa State and other parts of Nigeria (Ayomide, 2022).

The second research question is 'What is the perception Bayelsa state residents on broadcast media communication of natural disaster(s)? According to the data in table four, majority of respondents (57.2%) sampled, did not believe the media messages they got from the broadcast media on the natural disaster, meaning that most of them perceived the messages in the negative light. Hence, though the finding supports the prevalence of radio medium among many people in Bayelsa State, a noticeable percentage of them did not see the broadcast media messages or information to be credible and dependable. This informs and explains the reason majority of them did not have positive perception about information/messages they got from broadcast media concerning environmental natural disasters, and or did not really believe the messages coming from the broadcast media on natural disaster.

This also means that the people of Bayelsa state are not really made to understand the media messages or news reports about natural disasters. This also proves existence of some level of ignorance of natural disasters among Bayelsa residents. This agrees with question the position of Nwabueze, Nnaemeka & Umeora (2015) that mass media reportage of flood events are not really effective in making people anticipate the unusual and devastating effects. The inference from the findings under this research question is that people perceive media broadcast of environmental natural disaster in Bayelsa state as ineffective. This means that more is still demanded especially in terms of correlation function.

The third research question is 'To what extent does Bayelsa residents' exposure to broadcast communication on natural disasters enhances adoption for prevention and mitigation against natural disaster in Bayelsa state?' This question bothered on adoption and utilization of broadcast media messages by Bayelsa people towards preventing of natural disaster, was answered by the data found in s table 5 and 6. This shows that there was significant rate of unacceptance of broadcast media messages for control and prevention of natural disasters by Bayelsa people which in itself is a disqualification for the message adoption and utilization.

Table 6 equally reported a low adoption rate of broadcast media messages of broadcast media messages on natural disasters as majority of them (70.4%) reflected low rate in adoption and utilization of the media message/knowledge for precautionary measures against disasters. This proves disregard to the broadcast media messages. It also implies that Bayelsa residents do not derive much from the report of the media on natural disasters, meaning that broadcast media reports are of less preventive measures. This also shows that the sensitization and awareness programmes of Nigerian broadcast media on environmental issues/issues of climate change including natural disasters, are not effective. They have also failed to provide adequate explanation to environmental issues for the belief and proper understanding as asserted by Bashir *et al.* (2013).

The result further indicates that the media messages did not change their mentality and behavioural pattern towards environmental natural disasters, neither did it shaped behaviours and attitudes as it relates to preventing and mitigating natural disasters in Bayelsa state. However, few of the respondents (12. 6%) still claim to have adopted the media messages as precautionary measures by adhering to the information but the rate of adoption was very insignificant.

However, findings from this study refutes the agenda setting theory utilized for this work, which holds that, the media are capable of setting natural disasters prevention and precautionary measures as public agenda, with the view to engendering the necessary adoption and prevention.

Conclusion and Recommendations

The researcher investigated how broadcast media messages on natural disasters contribute to the prevention and mitigation of natural disasters in Bayelsa State. Findings revealed flooding as the most frequent/reported natural disaster by broadcast media located in Bayelsa State. The investigations also revealed that Bayelsa people had a negative perception about the broadcast media messages onnatural disasters which hindered the adoption of the messages for the achievement of the needed precautionary measures and control against environmental natural disasters. It has been proven that in spite of the agenda setting role performed by the broadcast media in Bayelsa state by setting agenda on the prevention and control of natural disasters in the state, coupled with the people's exposure to the information, Bayelsa people on their part failed to adopt the messages to gratify their information need on natural disasters due to unbelief/misconception of media messages and power problem.

Based on the findings, the study recommends that, there is need for restrategising and repeating exposures to media messages on environmental natural disasters, as uphold by Nwaguma & Anorue (2015), that repeated exposure to media messages and even campaigns increase knowledge about issues, and results to behavioural change towards such issues. It is on this note, that it is still incumbent on the media to make more education and enlightenment on natural disasters. The broadcast media must re-strategize their campaign messages/methods and be effectively utilized, not only during natural disasters occurrence, but before and after occurrences.

The government, non-governmental organisations (NGOs) and relevant agencies must collaborate with both private and government owned broadcast media stations to ensure that sensitization and education programmes on natural disasters especially flooding are given priority for acceptance and adoption of the messages. While the broadcast media in Bayelsa state should make effort to effectively report natural disasters beyond flooding incidents, with consistent follow up reports and messages that will enhance comprehension and clarity about environmental issues.

Considering the negative impact of natural disasters in an environment, flooding inclusive, national and international bodies can take up the use of the media to educate the people on strategies and precautionary measures against natural disasters, while the National Orientation Agency should take up the role of re orientating the attitude and perception of Bayelsa residents to correct their unbelief and misconception of the people towards media messages on natural disasters.

It is worthy of note, that this research was limited to Bayelsa State in Nigeria, It is therefore suggested that the research should be done in other states and even regions, taking cognizance of the fact that natural disasters especially flooding have become yearly occurrence in most states in Nigeria (Batta, 2013).

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