



NEWSPAPERS REPRESENTATION OF CLIMATE CHANGE IN NIGERIA

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ABSTRACT

This study assessed media representation of climate change in four Nigerian newspapers. To generate data for the study, content analysis was used to analyze four national dailies. The newspapers used include: The Guardian, The nation, Vanguard and Daily Sun newspapers. The population of the study was 3312 editions from where a sample of 164 was gotten using Nwana (1981) sample formula. Results indicated that the selected newspapers gave little prominence to climate change. Result also shows that prominence, story type, frequency on climate change were noted as part of what the media used in representation of climate change in the four selected national dailies. Based on the findings, the study recommends that Nigerian newspapers should make scientific journalism to be taught in journalism schools, mass communication departments and journalism-related fields in Nigerian tertiary.

Keywords: Audience, Perception, Climate Change, Coverage

Introduction

Over the past years, there has been a lot of evidence that human activities affecting the climate has risen to inexorable stage. Scientists are confident enough that the activities of humans have interfered greater with the climate. This change poses a fundamental threat to the environment and human lives and its consequences ranges from extreme weather and energy crises, health risks and environmental degradation. Puchari (2007) observes that in Africa by 2020, between 75 and 250 million people are projected to be exposed to water stress due to climate change. Ukonu (2012, p.22) opined that “climatic extremes experienced around the world are the greatest environmental challenge confronting the world today as it has become one of the symbols of popular discontent.”

The greatest effects of climate change in Africa have been on food security, as rising temperatures and shifting rain patterns lessen access to food across the continent. (Boykoff, 2007) climate change at present is beginning to transform life on earth, around the world, seasons are shifting, temperatures are increasing and sea levels are rising. Climate change affects the whole world though the poorest people who contribute least to the change are the ones who suffer the most, (Nebedum & Nnaemeka, 2016).

The media are endowed with the ability to setting agenda for the public to understand certain issues like those of climate change science, its effects and the need for its prevention. According to Boykoff and Roberts (2007 p. 6), “the mass media have been defined as the publishers, editors, journalists and others who constitute the communications industry and profession, and who disseminate information, largely through newspapers, magazines, television, radio and the Internet.”

Regular and accurate communication about climate change is the first step towards developing coping mechanisms in Africa (Tagbo, 2010). The media inform and educate the public about issues through framing and agenda setting. According to Taylor (2011), framing is important in terms of how a message is shared and how it is received. Also, frames and agenda regulate how the society shapes reality. Furthermore, agenda setting captures the way in which policy makers and power elite receive and then formulate (frame) science information, which are then presented by the media following their inbuilt structural framing devices. Media approach towards climate issues have also been questioned as the media mostly show interest when a newsy climate change issues occur. Hence, with the climate change issues becoming a more prominent role in the world today, there is need for Nigerian media to take a strong posture towards influencing the climate change issues.

Statement of the Problem

Nigeria's position towards influencing the climate change issue ranging all over the world has not yet been known. Tagbo (2010) observes that irrespective of the dangers of climate change, the Nigerian media appear to be lagging behind, leaving the awareness campaign to individual efforts, thus exposing the country to the risk of getting badly bruised from the soon to come effects of climate change. Media approach towards climate issues have also been questioned as the media only show interest mostly when a newsy (especially catastrophes) climate change issues occur.

The focus of this study seeks to examine newspaper representation of climate change by newspapers in Nigeria, as it is believed that knowledge of how climate issues has been understood is of vital importance to establishing how the general public will be able to respond to lifestyle changes that will aid climate protection. However, the scope of this study is limited to four newspapers namely, Vanguard, The Nations, Daily Sun and The Guardian newspapers which were purposively selected.

Research Questions

The following questions have been formulated to guide this study:

1. What is the frequency of coverage given to climate change in the selected newspaper?
2. What are the story types used in reporting climate change issues in the selected newspaper?
3. What is the level of prominence given to climate change?
4. What are the frames used in reporting climate change?
5. What are the issues that characterized climate change reportage in the selected dailies?

Literature Review

Understanding climate change

Lack of understanding of climate change makes it difficult for most African journalists to do justice on this topic. Only few journalists are knowledgeable enough on the issue of climate change unlike what is obtainable in the developed country (Tagbo, 2010; Nwabueze, 2007). Aniegbunam (2010), cited in Tagbo (2010), observes that climate change has become a strong development issue but has been over shadowed by other pressing issues which are more visible to the public. The turbulent political history of many African countries strongly influences the type of priority given to environmental issues such as climate change (Tagbo 2010).

More so, scholars associate climate change to manifestation or observable variables of various forms in the atmosphere as a result of human induce activities especially those that alter the atmospheric composition of the earth which at times lead to global warming (Idowu et al 2011, Nwabueze et al, (2015) and Agwu et al (2013). It has been obtained that climate change are often cause by many greenhouse gases which are mainly emitted by human activity. The first and foremost in the list is carbon-dioxide, excessive

burning of fossil fuels like coal and oil is the major factor for producing this gas. Moreover, deforestation, removal of trees for acquiring lands also causes large amount of carbon dioxide in the atmosphere.

Climate change is having serious and unpredictable impacts on the world today (Nebedum&Nnemeka, 2016). The impacts of climate change are being felt by both developed and developing countries. Several sectors of Nigeria's economy appear to be directly exposed to the impacts of climate change. These impacts are currently been experienced on agricultural production, health, biodiversity, social, economic and energy sector, etc.

Nigeria media and public understanding of climate change.

Nwabueze et al (2015), argues that, the Nigerian mass media play their basic role of information, education and entertainment in the society. This includes dissemination of information on green issues in the Nation and in the global scene. The media is not just expected to report on mere issue rather report incidents and happenings that are of great important to the public. When incidents with great significance to the environment and to the health of people take place in the society, the media expose such incident and make the public aware of them.

Boykoff and Roberts (2007) examined media coverage of climate change: current trends strengths, weaknesses. Findings shows that, the media has at times kept the issue of climate change alive, but has also limited the extent to which real change in the organization of society and foreign assistance have been called for. Basically, the press has been quite crusader in its portrayal of the needed action on climate change, when the scientific projections suggest the issue may call for truly revolutionary changes.

Dynamics in media representation of climate change.

When it comes to media coverage of issues especially debatable and high-impact issues like climate change there are always dynamics in the reporting process. According to Ukonu (2012), an editor noted that the first and biggest challenge was understanding climate change terminology. Ukonu further stated that reporters were concerned about constant transfers from beat to beat, which was not allowing them time to gain enough experience on the climate change beat before being transferred. This was a restatement of the fact that the reporters are less than adequately prepared to handle climate change reporting, even though one editor argued that every reporter had strong academic background to help them understand and report climate change effectively. He also found out that the newspapers reported climate change significantly, but they did not put the whole context within climate change was occurring in clear view for the reader; many issues thrown up in news were not followed up. Choice of topics was therefore not planned. Also, Nigerian newspapers constructed climate change as certainly occurring, and as mostly human induced; the newspapers did not over emphasis catastrophe in stories. The research also found out that the image of Nigeria in the newspaper was that of an aid-dependent country, that could hardly do much else but ask for money to fight climate change. Also, Nigerian public were not significantly influenced by Nigerian newspaper reports on climate change

To ascertain the level of coverage Nigerian newspaper's gives to climate change, Nwabueze et al (2015) did a study on Nigeria newspapers' coverage of climate change issues found out that the volume of coverage of climate change issues by the media in Nigeria nations is poor. This is in view of the fact that out of the 190 editions of the newspapers studied; only 15 stories on climate change were recorded. They further blame the Nigerian media on total dependence on international media when reporting climate change issues. Pointing out that climate change issues lacked what they term 'Nigerian Setting'.

These researchers focused on experimentally manipulating message of climate change attribute to evaluate their impact on audience responses. For example, their researches have examined the impact of message frames. Thus, it is important to know how the mass media portray climate change issues, in current climate science, policy and practice and examine its effect from these media portrays.

Theoretical Framework

This work is anchored on agenda-setting theory of the media. Agenda setting theory stresses the ability of the media to influence the significance of events in the public's mind. According to McCombs and Shaw (1972) cited in Ovoh (2008, p. 222) "members of the audience not only learn about public issues through the mass media, they also learn how much importance to attach to an issue or topic from the emphasis the media place upon it." According to Nwabueze (2006), Alphonsus et al., (2022) Agenda-setting theory posits that by frequently covering and giving prominence to issues in the media, the audience attaches importance to those issues more than others. By so doing, the mass media set agenda for public discussion."

In order word, the theory designates the media as a very potent tool when it comes to public understanding of issues. It shows the ability of the media to tell us what issues are important. The agenda setting theory seems quite appropriate to help us understand the role of the media in guiding public discourse.

The selection of the theory for this study is borne out of its relevance to the subject of discourse. This is said that with agenda-setting, the media can tell stories on how significant climate change issues is to the society frequently and get to shape people's perception of on the issue.

Methodology

This study used content analysis method. "Content analysis is a method of studying and analyzing communication in a systematic, objective and quantitative manner for the purpose of measuring variables. (Kerlinger 1986), cited in Okoro and Ekwueme (2013), refers content analysis to as "A method of research that examines the manifest content of communication to discover the patterns existing their in. This manifest content could be news stories, editorials, features, advertisements, cartoons, opinion articles, photographs, illustrations and even letters to editor in a newspaper.

This method was adopted because it serves as the best possible means to achieve the research objectives of this study.

Population of Study

Ezeah and Asogwa (2003) described a population as "The theoretical aggregation of the elements being studied or the units of analysis. In this study, the population comprised all the national dailies published in Nigeria, from October- December 2020, 2021 and 2022.

Sample Size

According to Bryman and Bell (2007), "sample size is the segment of the population that is selected for investigation" Ezeah and Asogwa (2003) refers to it as "the aggregation of elements or units from which a survey sample is actually selected". Ohaja (2003) pointed out that selecting a sample size "is necessitated by the impracticability of studying the entire population in most cases"

From the above premises it can be drawn that sample size refers to a small fraction of an entire work which one intend to work on which will stand in for others one could not work on. Four newspapers out of the 28 leading national dailies in Nigeria as listed in 2016 Newspapers' Web Ranking (www.4imn.com/ng/) were selected purposely. The purposive sampling technique were used to select four of the newspapers which includes, *Vanguard*, *The Nation*, *Daily Sun* and *The Guardian* Newspapers for the study. These newspapers were purposively selected because of their representativeness.

In arriving at the sample size, the study used Nwanna (1981) sample size formula. An expected frequency value of 5% was used in sample size calculation as the population value was above a thousand. The formula states:

$$n = NV (p)$$

100

Where: n = sample size

NV = Population Value

P = Expected frequency value. The population value for the four newspapers is 3312 editions

Thus: n = 3312 (5)

100

n = 165.

Though, to achieve uniformity in distribution, the sample size was reduced to 164. A reduction in sample size does not affect sample representativeness. Okoro and Odoemelam (2013, p.10) pointed out that “it is usually not the largeness of the sample size that makes a sample valid but its representativeness. “Therefore, the sample size for this study is 164.

Sampling Techniques

Two sampling approach was adopted for this study. The quota sampling technique was used to apportion 42 issues each to the selected dailies, and this means 5 issues per month. “In a quota sample, subjects are selected to meet a predetermined or known percentage” (Wimmer& Dominick, p.94). The issues to be studied for the four newspapers were selected using the purposive sampling technique; the editions to be studied for the four newspapers were selected through lottery system. These four newspapers were selected because their popularity in print media industries in Nigeria.

Thus, the whole days of the week were written down and folded in a sheet of paper. The papers were put in a box and drawn one at a time, without replacement. From the process described above, the following days were selected.

Table 1: The selected days (editions) from the dailies (2020)

<i>VANGUARD</i>					
October	17	14	30	18	12
November	24	22	30	12	26
December	24	31	18	7	27
<i>NATIONS</i>					
October	13	3	23	11	22
November	18	30	20	7	8
December	11	19	23	30	22
<i>THE GUARDIAN</i>					
October	10	15	12	22	14
November	7	4	3	15	13
December	16	28	1	17	22
<i>DAILY SUN</i>					
October	5	27	17	8	14
November	10	25	6	27	14
December	11	29	17	7	22

Table 2: The selected days (editions) from the dailies (2021)

<i>VANGUARD</i>					
October	1	20	6	18	28
November	8	14	9	24	3
December	15	10	4	22	12
December	15	10	4	22	12
<i>NATIONS</i>					
October	15	14	29	6	13
November	22	23	4	3	28
December	24	28	29	27	19
<i>THE GUARDIAN</i>					
October	12	22	8	5	18
November	8	17	3	21	12
December	27	24	9	19	26
<i>DAILYSUN</i>					
October	21	10	12	7	1
November	8	9	27	18	13

Table 3: The selected days (editions) from the dailies (2022)

<i>VANGUARD</i>					
October	26	8	10	7	23
November	20	29	11	15	3
December	18	16	28	17	24
<i>NATIONS</i>					
October	31	10	13	22	17
November	5	24	22	20	14
December	16	2	26	6	11
<i>THE GUARDIAN</i>					
October	2	9	14	26	8
November	21	22	26	14	27
December	5	26	3	22	6
<i>DAILYSUN</i>					

October	31	22	28	14	18
November	3	27	24	15	7
December	9	23	29	30	8

Instrument for Data Collection

The instrument used for collecting data for this research is the code sheet. Coding is the assigning of numbers to content categories. Sobowale (1983, p.53) in Nwodu (2006, p.88) note that, “Coding remains an essential ingredient for processing the data collected.” It makes for easy quantification, subsequent measurability and analysis of highly qualitative data.

Content Categories:

Category A: Media: Daily sun, Vanguard, The Guardian and The Nation.

Category B: Story Type: News, Editorials, Features, Columns/opinion articles and Letters-to-the-editor.

Category C: Page Placement/Position: Front page, Back page, inside page and Centre spread.

Category D: Illustration: Photographs, Graphs, Cartoons and No illustration.

Category E: Frames: Political frame, Human interest frame, Action frame, Economic consequences, Environmental frames and Miscellaneous.

Category F: Issues in climate Change: Flood, Food security, Government intervention, international aid, Deforestation, Erosion and Emission of GHGs

Reliability and Validity of Instrument

To prove the reliability of this work, the inter-coder reliability technique was used. The entries coded were subjected to Holsti’s formula as cited in Wimmer& Dominick (2011, p. 172).

Inter-coder Reliability = $\frac{2M}{N1 + N2}$. Where:

M = the total number of coding decisions which two coders agree

N1 = the number of coding decisions by the first coder

N2 = the number of coding decisions by the second coder

A subsample of 10 percent as suggested by Lacy and Riffle (1996) was selected which yielded a subsample of sixteen editions. E.g. $164/100 = 1.64$. Therefore, $1.64 \times 10 = 16.4$

Sixteen editions were however approximately and randomly selected.

For coder 1, total number of coding decisions=80

For coder 2, total number of coding decisions=80

Number of coding decisions where coder 1 and coder 2 agree=73

Inter coder reliability = $\frac{2(73)}{80 + 80} = \frac{146}{160} = 0.91$

Therefore, $0.91 \times 100 = 91\%$

This means that the coefficient inter-coder reliability is 91% reliable.

Method of Data Analysis

The researcher adopted quantitative method in presenting, analyzing and interpreting the data that were collected from the sample newspapers. To analyze the data, the coded data were presented in raw figures on tables with their frequencies and percentage to produce an empirical result for the study.

Data Presentation

Data collected using the code sheet were presented and analyzed. The contents of *The Guardian*, *Daily Sun*, *Vanguard* and *The Nation* newspapers were analyzed using schedules that grouped them into content categories. There were 71 stories on climate change in the 164 editions for the 3 years studied.

Research Question 1: What is the frequency of coverage given to climate change in the selected newspaper? The result shows that *The Guardian* had more stories on Climate Change with 44 (62%), followed closely by *The Nation* with 12 (17%) stories and *Vanguard* with 12 (15%) stories. While *Daily Sun* had only 4 (6%) stories. In all, the four newspapers recorded a total of 71 stories on Climate Change. The level of frequency count for Climate Change, however, a result of the many effect of climate Change attracted the newspaper reports.

Research Question 2: What are the story types used in reporting climate change issues in the selected newspaper? The result shows that out of the 71 stories in all the newspapers, news had 49 (69%) stories, making it noticeably the dominant journalistic genre used in reporting Climate Change. Features had 18 (25%) stories, Editorial on the other hand had 0 (0%), Columns/opinion articles had only 2 (3%) and letter-to-editor had 2 (3%) in the newspapers.

Research question 3: What is the level of prominence given to climate change in the selected newspaper? The level of prominence given to climate change, these media will be analyzed based on the Page placement/position and illustration in the stories.

The result shows the placement of reports on climate change in the selected newspapers. 2 representing (3%) of the reports in both newspapers were on the front page. The headlines of some stories were on the front page but the stories were inside while others started from the front page. 69 (97%) stories were on the inside pages. No story was placed on both the back page and center spread. The findings of this study on content positioning reveal that the majority of the stories were placed on the inside pages of the selected newspapers.

Research Question 4: What are the frames used in reporting climate change in the selected newspapers? According to the data presented, the Environmental framing had the considerable number of reports 23 (32%), followed by Economic consequences with 16 (23%). It was followed closely by the human-interest frame 13 (18%). Others include action frame 10 (14%), and political frame, with 9 (13%), while no story had miscellaneous frame. *The Guardian* newspaper had the highest number of reports with Environmental frames 13 (16%), followed by *The Nation* newspaper with 4 (6%), *Vanguard* 3 (4%) and then *Daily Sun* newspaper with 3 (4%) reports.

Research Question 5: What are the issues that characterized climate change reportage in the selected dailies? The result shows that out of 71 issues in all the newspapers, Government Intervention had 35 (49%) stories, making it clearly the dominant issues used in reporting climate Change. For all the newspapers, government Intervention was almost the only way climate was reported as shown in this table where the percentage stands higher than that of any other genre. While food security and Emission of GHGs had 12

(17%) stories, international aid had 4 (6%) and Flood and deforestation had only 3 (4%), while Erosion had 2(3%) in the newspapers.

Findings

The background of this study focused on the media as the main factor through which issues of climate change can be presented. This research allowed for overview of research works that has been done on climate change. This allowed the researcher to understand the current framing pattern in the coverage of issues by the mass media.

The researcher used agenda setting theory for this study because of its relevance to the subject of discourse. This is said that with agenda-setting, the media can tell stories on how significant climate change issues is to the society frequently and get to shape people's perception of on the issue.

Also, the research design adopted for this work is content analysis. In arriving at sample size, the study used Nwanna (1981) sample formula which gave the researcher sample size of 164. The method of analysis used were frequency counts and percentages to measure the climate change in the selected newspapers in Nigeria.

The result shows that all the selected newspapers showed interest in covering climate change, however, they gave just a little or a considerable amount of coverage to them, reporting a total of 71 stories within the period studied. Where, *The Guardian* newspaper had the highest frequency with 44 (62%) stories. Followed by *The Nation* newspapers with 12 (17%) stories and Vanguard newspaper 11 (15%). While *Daily Sun* newspaper came last with 4 (6%) stories.

The findings revealed that the selected newspapers tried to give prominence (even when the period was purposively selected to reflect the United Nation framework conference on climate change (UNFCCC) to the coverage of climate change by reporting 69 (97%) out of 71 stories at the inside page, while 2 (3%) stories were placed at the front page of the newspaper. The quality of reportage that a media house gives to an event as well as the quantitative reportage of the event is important.

Conclusion

In view of the findings of this research work, this study concludes on the bases that the newspapers reported climate change poorly, and also failed to give in-depth analysis of climate change reports in the form of features, opinion articles, columns, news analysis and editorials. The use of news story by the media only allows the readers to get a report of immediate events, without presenting a detailed account of issues that led to atmospheric changes.

The media as the watchdog of the society, the print media serve as an effective network for advocating for causes in the society, making those who are to carry out their specific duties and implementation of policies take action on them.

Recommendations

Based on the findings of this study, the following recommendations are hereby made and presented:

1. Reporters ought to conduct more public opinion surveys and gather more results about climate change and run the results as stories. These will not only help reporters scale public opinion on climate change, and

thereby direct choice of topics. It will also give the public a sense of belonging in the pattern of choice of issues discussed about climate change.

2. Scientific journalism should be developed and taught in journalism schools, mass communication departments and journalism-related fields in Nigerian tertiary.

3. Nigerian newspapers should make climate change issues an expert area, journalists should be properly trained in this area.

4. The reporters should use discussion pattern in broadcasting climate change issues to the masses.

5. It is advisable that the media house frequently give their opinion on climate change.

References

- Agwu E.A & Amu C.J (2013), *Framing of climate change news in four national daily newspapers in southern Nigeria*.
- Alphonsus, U.C., Etumnu, E.W., Talabi, F.O., Fadeyi, I.O., Aiyesimoju, A.B., Apuke, O.D & Gever, V.C. (2022). Journalism and reportage of insecurity: Newspaper and television coverage of banditry activities in Northern Nigeria. *Newspaper Research Journal*, 43(3), 343-357. <http://doi.org/10.1177/07395329221112393>
- Boykoff, M. (2007). Newspaper coverage of anthropogenic climate change in the United States and the United Kingdom, 2003 – 2006. *Paper presented at the 2007 Amsterdam Conference, International Human Dimensions Programme, Global environmental change*, May 24.
- Boykoff, M. T. & Roberts, J. T. (2007). Media Coverage of Climate Change: Current Trends, Strengths, Weaknesses. *UNDP Human Development Report Office*.
- Bryman, A. & Bell, E. (2007). *Business research methods*, 2nd edition. US: Oxford university press.
- Ezeah G. & Asogwa C. (2013). Mass media research: some methodological guidelines. In N Okoro (Ed) *Contemporary readings in media and communication studies*, St benedettepublishers Ltd.
- Idowu A.A, Ayoola S.O, Opele A.I & Ikenweibe (2011). impact of climate in Nigeria: *Iranicaljournal of energy & Environmental* 2 (2), 145-152, 2011.
- Intergovernmental Panel on Climate Change (IPCC)2007, *The Physical Science Basis*, Cambridge: Cambridge University Press
- International Newspapers & Media (2016). Top newspapers in Nigeria by 2016 newspaper web ranking. Retrieved from www.4imn.com/ng/
- IPPC (1996) climate change, 1995. *Impacts Adaptation and Mitigation of climate change*, Cambridge. Cambridge University press England.
- Nebedum E. E & Nnemeka E. V (2016). Climate change and it impact in Nigeria Economy. *Journal of Scientific Research and reports*.10 (6) 1-13, 2016

- Nwabueze, C. (2008). *Environmental communication: Perspectives on green communication and information management*. Enugu: Daisy Presspapers/Luganda%20paper.pdf.
- Nwodu L. C. (2006). *Research in communication and other behavioral sciences; principles, methods and issues*. RhyceKerez publishers.
- Ohaja E. (2003). *Mass communication research and project report writing*. Lagos: John Letterman
- Okoro N. & Ekwueme A.C. (2013). Mass Media Research: content, structure and form. In N. Okoro (Ed) *Contemporary readings in media and communication studies*. St benedettepublishers Ltd.
- Okoro N. (2001). *Mass communication issues and methodologies*. AP Express.
- Okoro, N. & Odoemelam, C. (2013), Print media framing of boko haram insurgency in Nigeria: A content analytical study of The Guardian, Daily Sun, Vanguard and This Day newspapers. *Research in humanities and social sciences*, 3(11). Puchari, K. (2007). IPCC climate change assessment report. Retrieved April 26, 2012 from: <http://www.ipcc/:climatechangeassessmentreport4.net//.u>
- Tagbo, E (2010). *Media Coverage of Climate Change in Africa: A study of Nigeria and South Africa*. Oxford: Reuter's foundation.
- Taylor, M (2011). Framing climate change: How we lost 20 years of action, the fifth estate. www.thefifthestate.com.all/.../8870
- The Works of James Wilson, Edited by Robert Green McCloskey, 1-2, the Belknap Press of Harvard University Press.
- Ukonu, M. (2012). *Newspaper reportage of climate change and its influence on public knowledge of climate change*, (Doctoral thesis), University of Nigeria, Nsukka.
- Umeji, E. (2010). *Climate change: Nigerian Media sleeping on duty*. <http://Emekaumeji:/weblog/climatechange.nigeria.com>.
- Wimmer, R. D. & Dominick, J. (2003). *Mass media research: An introduction*, 7th edition. Wadsworth.