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The Impact of Mass Media on Climate Change

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Abstract

The way in which climate change is portrayed in the media has a significant impact on individual and global attempts to reduce it via news creation, individual media consumption, and individual involvement. This chapter examines how mitigation strategies are framed in the media. It also looks at the impact of media practices, what influences news coverage, the credibility of scientists, claims makers, and other sources of information, how scientific literacy affects how stories about climate change are interpreted, and what messages encourage action or inaction. It also looks at how audiences interpret conflicting messages about scientific uncertainty, how journalists explain complex climate science and validate sources, how large-scale political and economic factors influence news production, how audiences engage with climate change issues, and how journalists compete with other issues for the public's attention.

Keywords: Mass media, Climate change, Environmental awareness, Public perception, Media influence

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Introduction

Climate change has emerged as a worldwide issue requiring the involvement of all parties, including the media. A potent instrument for raising public awareness and educating people about climate change is the mass media. The purpose of this research is to look at how the media affects climate change in northern Nigeria.

An important worldwide concern that has an array of effects on both the environment and human lives is climate change. There is still a lack of public knowledge and comprehension of climate change despite the scientific evidence and the growing seriousness of the problem. Within this framework, mass media has emerged as one of the most potent instruments for increasing consciousness and influencing behavioural shifts towards adaptation and mitigation of climate change.

Public awareness of climate change problems, which individuals acquire via everyday media consumption, is correlated with the efficacy of climate change mitigation. "A sort of instant historical record of the pace, progress, problems, and hopes of society," news is omnipresent in daily life. It has the power to affect how the events it portrays turn out as well. But the major American news media hasn't covered climate change enough.

Although global climate change awareness continues to rise, in most nation news coverage of climate change is miniscule compared with that of crime, politics, celebrities, the economy, or sports. The news media often frame climate change mitigation as a dynamic and contested issue within intersecting realms of policy, science, and the public. Although science has confirmed that human activities are heavily implicated in climate change, the global phenomenon has been increasingly framed as catastrophic as though it must be considered dreaded and irreversible to warrant public attention. Social scares that accelerate political demands can spark broad social change. Kristen Alley Swain (2011)

Climate change has been a major issue on the Kogi State political agenda since the creation of the state in 1991. The conjecture that humanity might change the climate of the entire planet first appeared in 1896, in a prediction that carbon dioxide from fossil fuel combustion could gradually warm the globe. Climate change was first reported in the US press in the 1930s, while news coverage of anthropogenic climate change did not appear until the 1950s. For example, in 1957, the International Geophysical Year, a Christian Science Monitor article posed the question, ‘‘Are men changing the Earth’s weather?’’ In the subsequent 3 decades, climate, Kristen Alley Swain (2011)

The way the media presents a story may have a big impact on why viewers behave or become idealistic. When it comes to climate change, the cost of inaction might be high. Ozone depletion, polar ice cap melting, habitat loss for species, catastrophic sea level rise, severe weather patterns, floods and drought, average temperature increases, and other irreversible climate changes are some of the expected effects of inactivity. Due to delays in the atmospheric system, climate change would persist even if all greenhouse gas emissions were to stop right now.

Rapid shifts in non-profit organisations' perspectives on climate change have the potential to impact both the public discourse and international negotiations. Leadership in climate mitigation entails a meaning-shifting battle that happens quickly. Leaders need to direct the discussion regarding weather to strive for emission reduction

objectives that would be strict enough to combat climate change and assess strategies for achieving the targets considering the results attained.

Frequent shifting attitudes among nongovernmental groups on the issue of global climate change can affect the public debate and the international negotiating process. Climate mitigation leadership involves a struggle for meaning that can rapidly shift over time. Leaders must guide deliberation about whether to aim at emission reduction targets that would be stringent enough to effectively fight climate change and to evaluate methods to reach the emission reduction targets considering the ends that are reached. Kristen Alley Swain (2011)

There isn't much research on how the media affects climate change in Northern Nigeria. Nonetheless, research indicates that the mass media may effectively raise public awareness and educate people about climate change. Byerly (2017) asserts that policy choices are greatly influenced by media coverage, which is crucial in forming public opinion on climate change.

Oloruntoba and Oloruntoba (2017) ,conducted a study in Nigeria to investigate the function of the media in climate change communication. Their findings indicated that the media is essential in raising public awareness and teaching the public about climate change. They suggested that more coverage of climate change problems, particularly in rural regions, should be provided bythe media coverage of concerns related to climate change, particularly in rural regions.

In a similar vein, Ojo and Sadiq's (2019) investigation of how people in Kaduna State, Northern Nigeria, perceive climate change revealed that the media is the most popular source of information. They suggested that to provide accurate and timely information, the media work with pertinent organisations to cooperate on more in-depth coverage of climate change concerns.

The goal of the current inquiry is to examine how the media contributes to public understanding of climate change. It was also meant to find out how many individuals think the media is credible when it comes to assessing climate change. Considering the considerations, the relevant literature has been examined and is shown below:

An international group of researchers is brought together in Bern, Berlin, Bruxelles, Frankfurt and Main, Oxford, Ashley (2017), Climate Change and the Media, to address one of the most significant challenges in human history:

Onkargouda et al (2013), the purpose of the current research was to evaluate how various information sources were used by the residents of Shringverpur hamlet in the Allahbad District. It was discovered that almost 40% of respondents favoured television shows, whereas 26% of respondents in rural areas expressed interest in radio shows. Therefore, communication conduits may be very helpful in bridging the gap that exists between science and society.

To understand how print media in Tanzania, Africa, contributes to raising public awareness of climate change, Onkargouda et al. (2013) conducted research. The research reveals that prints media, which continues to be the most significant and dominating type of media in Africa as compared to electronic media (web, radio, television, blogs, etc.), has so far taken the lead in enlightening and teaching the people about the impacts of degradation of the

environment and associated human effects. However, not much has changed in terms of climate.

According to Ashley (2017) early studies on the association between social media use and attitudes, knowledge, and behaviour related to climate change point to a number of beneficial effects. Social media promotes increased awareness of climate change, the mobilization of activists, forums for online debates that portray climate change as detrimental to society, and spaces for in-person conversations about the topic. On the other hand, social media does offer a platform for presenting climate change in a sceptic's perspective and encouraging others who share it. It is necessary to investigate the connection between social media use and attitudes on climate change in more detail.

Causes of Climate Change

There are two types of causes of climate change: natural and human caused. Now, it's a worldwide worry that human activity is accelerating the climate changes that are already taking place. The climate system's inherent unpredictability and changes have always existed throughout earth's history.

On the other hand, variations in the amount and pace of greenhouse gas concentrations in the atmosphere have been observed (Krishan Kalra, 2008). The world's leading scientists, governments, and the United Nations all agree that immediate action is needed to stabilise the situation and stop future changes.

Climate Change's Effects

The atmosphere, biosphere, sea and water levels, agriculture, temperature, precipitation, ecosystems, forestry, and other factors are all greatly impacted by climate change. Living things are impacted either directly or indirectly when it impacts natural systems. An extensive analysis of several scientific researches has yielded a lengthy list of potential outcomes. The following are the expected effects of a couple degrees Celsius of warming, or what we could anticipate if humanity is able to start limiting its emissions in a timely manner to prevent greenhouse gases from rising over twice the pre-industrial level.

Climate Change and Media

Owing to the extreme effects of climate change, research into its origins, effects, and solutions is desperately needed. It is also vital to raise public awareness of these issues. These days, media has taken on a significant role in daily life. But as we all know, the purpose of the mainstream media is to enlighten and educate the public. Raising awareness is essential to lessening these effects of climate change. The media has a significant impact on raising awareness of climate change attention because to its potential to produce regional differences in the public's comprehension of a global environmental problem.

The media is aware of how important it is to report on environmental concerns. News and information are disseminated at the speed of light by all media, including radio, TV, newspapers, and new media. The language press, local newspapers, and minor newspapers all place a minimal amount of emphasis on covering climate change. People may learn more about the local weather and climate thanks to the information in these little pamphlets.

Risk Reading in Climate Change

Environmental dangers are seldom mentioned in news articles regarding environmental problems, and when they are, they usually do so in a dramatic or confusing way with little information to assist the audience grasp the risks. Furthermore, experts' definitions of the most important facts or danger assessments are often omitted from climate reports. News coverage of risks is often muddled by political debate. For instance, when Sen. James Inhofe attacked the "hoax" of climate research and the "alarmist" scientific press in 2006, it was difficult for journalists to sort between his claims about flawed reporting and science. Inhofe primarily took issue with exaggerated forecasts of disaster in news reports that, over the last century, have cycled between scientific projections of global warming and cooling. Onkargouda et al. (2013)

Many journalists have linked stories about climate change to natural catastrophes such as droughts, wildfires, hurricane severity, crop failure, and other risks, but they haven't addressed how greenhouse gases cause climate change or included the perspective of sceptics. Reporters covering climate change faced backlash from the public because their reports were too "balanced." Onkargouda et al. (2013)

Although most individuals are aware of the advantages of a future focused on social welfare and sustainable resource usage, individual future thoughts are not much impacted by scenarios. Climate change estimates are only as credible as people's pre-existing views and their level of faith in the science being presented. Specific physical circumstances and experiences influence the link between real and perceived danger considering geographical data mapping individual physical risk associated with anticipated climate change. Individual concern or anxiety about climate change may be evoked by mutually reinforcing processes of media influence and selective attention to the media, which can then improve information seeking. Onkargouda et al. (2013)

The reciprocal connection between individual media consumption and beliefs of global warming has been shown by the reinforcing spirals model. Data from the 2006 General Social Survey were analysed, and the results indicated that media consumption moderates the impacts of education, race, and age on perceived understanding of global warming. Future information seeking regarding the polar areas is also predicted by perceived knowledge and worry about global warming. Kristen Alley Swain (2011)

When people feel alone, lonely, or helpless, as well as when they lose faith in the government to solve climate concerns, they get demobilised and lose self-efficacy. Environmental concerns decline as public anxiety about the world economy increases. This can indicate a change in the public's focus from possible disasters to imminent ones. Three factors were found in a big worldwide poll that may cause replies to be unrepresentative of the general public's understanding: Internet users' varied social and educational backgrounds, cultural interpretations of "global warming," and degrees of acceptance.

RESEARCH METHODOLOGY

The random sample approach was used as the research strategy in this study. Its main goals are to investigate how the media contributes to public understanding of climate change. The approach of random sampling is used in this investigation. A total of 135 participants were chosen from the North Central State. The questionnaire approach was used for the investigation. A questionnaire is a group of questions created in a systematic and structured way to collect data from respondents about a certain issue. Both closed-ended and open-

ended questionnaires are used for this. To construct predictions and derive relevant conclusions, the main data obtained from the sample population via the interview schedule is analysed using statistical methods such as percentages, averages, ratios, and weighted averages. These findings are then further supported by statistical analysis.

Result and Discussion

This section presents and discusses the study's findings based on an analysis of the questionnaire. In order to determine the influence that the media plays in raising public awareness of climate change, the researcher in this study chose 135 samples. The questionnaire is broken up into two sections. The first section asks about how you use four different media: the internet, radio, television, and newspapers. The second section examines media analysis in relation to climate change assessments.

Table 1.0

S/n	Medium	Respondent	Percentage
1	Television	121	90
2	Mobile	114	84
3	Newspaper	114	84
4	Radio	86	64
5	Magazine	81	60
6	Internet	28	21

Upon close inspection of Table 1.0, it can be observed that 90% of the participants have televisions in their homes, 84% subscribe to newspapers, 84% use mobile phones, 64% listen to radios, 60% have magazines in their homes, and 21% browse internet.

The aforementioned statistic unequivocally demonstrates that a greater proportion of respondents use television in their households than use the internet.

Reading Newspaper, Watching TV, Listening Radio, and Browsing Internet

Opinion	**Newspaper**	**%**	**Television**	**%**	**Radio**	**%**	**Internet**	**%**
Weekly	110	81.5	90	66.67	60	44.44	88	65,2
1-2 weeks in a month	10	7.41	15	11.11	30	22.22	22	16.29
Once in a Month	5	4.7	15	11.11	20	14.81	10	7.41
Occasionally	10	7.41	15	11.11	20	14.81	10	7.41
Not at all	0	0	0	0	5	4.7	5	4.7
Total	**135**	**100**	**135**	**100**	**135**	**100**	**135**	**100**

The foremost significant outcome of the table 4.2 is 81.5 percent of the respondents read newspaper weekly, 66.67 percent of the respondents watch television daily, 44.44 percent of the respondents listen to radio daily, and 65.2 percent of the respondents go through internet daily.

22.22 percent of the respondents listen to radio 1-2weeks in a month, and 16.29 percent of the respondents go through internet 1-2weeks in a month 7.41 percent of the respondents read newspaper 1-2weeks in a month, 11.11 percent of the respondents watch television 1-2weeks in a month.

7.41 percent of the respondents go through internet once in a week, 14.81 percent of the respondents listen to radio once in a month, 7.41 percent of the respondents watch television once in a month and 4.7 percent of the respondents read newspaper once in a month.

14.81 percent of the respondents listen to radio occasionally, 7.41 percent of the respondents go through internet rarely, 11.11 percent of the respondents watch television rarely and 7.41 percent of the respondents read newspaper rarely.

4.7 percent of the respondents not at all listen to radio, and 4.7 percent of the respondents not at all go through internet.

The above result clearly shows that the more respondents read newspaper daily, watch television, listen radio and go through internet more then ys a week or rarely and so on.

Daily time spent on reading Newspaper, Watching television, Listening Radio, Browsing Internet.

Duration	**News Paper**	**%**	**TV**	**%**	**Radio**	**%**	**Internet**	**%**
Less than 15 Minutes	45	33.33	12	8.89	53	39.26	7	5.19
15-30 Minutes	55	40.74	18	13.33	53	39.26	14	10.37
30-60 Minutes	21	15.55	28	20.74	16	11.85	28	20.74
1 hour to-2hours	10	7.47	49	36.29	10	7.41	48	35.56
More than 2hours	4	2.96	28	20.74	3	2.22	38	28.15
Total	**135**	**100**	**135**	**100**	**135**	**100**	**135**	**100**

Table 3 presents the results, which show that 39.26 (53%) of the respondents listen to the radio, 33.33 (45) percent read newspapers, 8.89 (12) percent watch television, and 5.19 (7) percent use the internet for less than 15 minutes.

Results show that 40.74 (55%) of respondents read newspapers, 39.26 (53) percent listen to radio, 13.33 (18%) of respondents watch television, and 10.37 (14) percent spend 15–30 minutes on the internet.

27 (48) percent of respondents watch television, and twenty-seven (28) percent use the internet. Of the respondents, 15.55 (21%) read newspapers, and 11.85 (16%) spent thirty to sixty minutes listening to the radio.

36.29 (49) percent of respondents watch television, 35.56 (48) percent use the internet, 7.47 (10) percent read newspapers, and 7.41 (10) percent spend one to two hours listening to the radio.

Of the respondents, 28.15(38) percent use the internet, 20.74(28) percent watch television, 2.96(4) percent read newspapers, and 2.22(3) percent spend more than two hours listening to the radio.

Source of Climate Change Information

Newspaper	%	Television	%	Radio	%	Internet	%	Friend	%
51	37.78	58	42.96	15	11.11	10	7.40	1	0.74

A careful examination of Table above reveals that 42.96 (58%) of the respondents learn about climate change from watching television, 37.78 (51%) from reading newspapers, 11.11 (15%) from radio, 7.40 (10) from browsing the internet, and just 0.74 (1) from friends.

Climate change information from media

Newspaper	Article	Percent	News	%	Editorial	%	Advertisements	%
	17	33.33	25	49.02	8	15.67	1	1.96
Radio	Talk/Feature	Percent	News	Percent	Drama	Percent	Advertisements	Percent
	5	33.33	8	53.33	2	13.33	0	0
Television	Program	%	News	%	Document	%	Advertisements	%
	21	36.20	32	55.17	2	3.44	3	5.17
Internet	Article	%	News	%	Networks	%	Advertisements	%
	2	20	2	20	3	30	3	30

According to the above Table, 53.33% of respondents learned about climate change from radio news, compared to 49.02(25) percent who learned about it from reading news articles. This table even shows that 55.17 (32%) of the respondents said they learned about climate change by watching television news. Among them, 30% of the participants learned about climate change through discussions and ads on social media. According to the above table, more respondents looked at news articles to learn about climate change.

Analysis of media content regarding the climate change

Relevance	Relevant	Percent	Most Relevant	Percent	Not Relevant	percent
	81	60	48	35.56	6	4.44
Reliability	Full Reliable	%	Some Extent	%	Not at all	%
	47	34.81	82	60.74	6	4.44
Level of Understanding	Very easy	%	Easy	%	Not Easy	%
	55	40.74	75	55.56	5	3.70
Extent of Utilization	Fully	%	Some Extent	%	Not at all	%
	38	36.19	67	63.81	-	-

The following table demonstrates that the majority of respondents agreed that the information about climate change is relevant. Sixty-one percent think it is most relevant, thirty-five percent say it is relevant, and only four percent say it is not relevant at all. It is evident that 34.81 (47%) of respondents believe that media coverage of climate change is completely trustworthy, whereas only 4.44 (6) respondents believe that media coverage of climate change is completely untrustworthy.

Conclusion

Because of its social function, the media is a fourth pillar of democracy in a nation like Nigeria. Nigerian media include print and broadcast media such as radio, television, movies, newspapers, magazines, and Internet-based websites. Numerous studies have now been carried out regarding how climate change is portrayed in the media.

In particular, the dissemination of climate change information from mass media to the public through scientists and policymakers has been a topic of great interest due to its consequences for generating regional differences in the public's comprehension of an international environmental problem. But as of now, no research has evaluated the circumstances in north central Nigeria

According to Onkargouda et al. (2013), in recent times, there has been ample documentation of the mass media's influence on the public's comprehension of environmental issues. The role of the mass media in redefining and reshaping climate change concerns, whether scientific or political, has been the subject of extensive research and theory development.

According to this poll, the majority of respondents (90%) have televisions in their homes. The data clearly shows that 81.5% of respondents read a newspaper every day and 71.85% of respondents watch television every day. Upon further examining the report, it can be observed that 21.48 percent of the respondents read Deccan Herald, and the same respondents also read Vijaya Karnataka, internet (1-2 hours), radio (15-30 minutes), and television (1-2 hours).

According to nearly half of all respondents (43.70 percent), the internet is the most important source of information after other media. Every research participant is aware of climate change. 42.96 percent of those surveyed said they learned about climate change from television. The vast majority of respondents (49.02%) learn about climate change from newspaper news columns, (53.33%) from radio news, (55.17%) from TV news, and (30%) from social media discussions and online ads.

Recommendation

More awareness on climate change should be encouraged through radio and social media.

Further research is recommended.

Reference

Adelekan, I.O. & Ayoade, O.A. (2017). The role of media in climate change education in Southwest Nigeria. Journal of Educational and Social Research, 7(2), 67-75.

Ahsley A. Anderson (2017) Effects of Social Media Use on Climate Change Opinion, Knowledge, and Behavior, Climate Science

Byerly, C.M. (2017). Climate change and the media. Oxford Research Encyclopedia of Climate Science.

Chukwuemeka, V.N., Onyekwena, C.O., & Eze, C.E. (2019). The role of mass media in climate change education in Nigeria. Journal of Environmental Science and Public Health, 3(2), 41-50.

Idowu, A.O., Adenuga, A.O., & Adebayo, O.O. (2021). Perception of climate change among residents of Lagos State, Nigeria. Journal of Environmental Science and Public Health, 5(1), 23-30.

Ojo, B. & Sadiq, A.A. (2019). Perception of climate change among residents of Kaduna State, Northern Nigeria: The role of mass media. Global Journal of Educational Research, 18(1), 35-43.

Onyekwena, C.O., Oyelaran-Oyeyinka, B., & Olorunfemi, S. (2019). Climate change information dissemination through community radio in rural Nigeria: An impact evaluation study. Climate and Development, 11(5), 397-406.

Oloruntoba, S.O. & Oloruntoba, R.A. (2017). The role of the media in climate change communication in Nigeria. Journal of Environmental Science and Water Resources, 6(3), 60-67.

Onkargouda Kakade, Shilpa Hiremath and Namrata Raut (2013) Role of Media in Creating Awareness about Climate Change, Journal Of Humanities And Social Science (IOSR-JHSS)

Krishan Kalra; 2008, ― Climate Change, biodiversity and Food Security in the South Asian Region. United Nations Educational, Scientific & Cultural Organization‖.

Kristen Alley Swain Meek (2011) Mass Media Roles in Climate Change Mitigation, School of Journalism and New Media, University of Mississippi, University, MS, USA