




Impact of Television Reportage of Climate Change on Adaptive Behaviour of the Residents in Ondo state, Nigeria

Iyadunni Florence Adedowole¹, Habib Mohammad Ali^{2*} , Joseph N. Chukwu³, Muhammad Aminuzzaman²

¹ Department Mass Communication, Rufus Giwa Polytechnic, Owo, Nigeria.

² Department of Media Studies and Journalism, University of Liberal Arts Bangladesh

³ Faculty of Management and Social Sciences, Alex Ekwueme Federal University Ndufu Alike Ikwo (AE-FUNAI), Nigeria.

Corresponding author*

Habib Mohammad

Ali

Department of Media Studies and
Journalism, University of Liberal
Arts Bangladesh

Email:

habib.mohammad@ulab.edu.bd

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ABSTRACT

The effects of long-term shift in temperature and weather patterns have been phenomenal, especially as it affects people's livelihood and communities. It is on this note this paper examined the impact of television reportage of climate change on adaptive behaviour of the residents in Ondo State, Nigeria. The study was anchored on Framing Theory. Moreover, the study employed survey design, and a population of 683,496 was derived from the three selected Local Government Areas of Ondo State. The study made use of random sampling approach and a sampling size of 400 was selected using Taro Yamane formula. The study revealed that television reports on issues related to climate change in Ondo State, Nigeria, have impact on the adaptive behaviour, which form the majority of the respondents. It also revealed that adaptive features regulation, safety and precaution and changes in adaptive features are the impact of television reportage of climate change on adaptive behaviour of the respondents. The study recommended that media as agents that set agenda for the public should be more proactive in reporting issues related to climate change in order to enlighten the general public. It also recommends that government agencies, especially those related to public service should engage in media campaign on issues related to climate change in order to give objective information to the general public on issues related to climate change, especially in Ondo State, Nigeria.

INTRODUCTION

The role of communication and media in raising awareness about climate change and its consequences has been acknowledged by governments and civil society organizations (Harris, 2014). Effective dissemination of information plays a crucial role in helping people understand the significance of climate change and its impact on society (Arlt et al., 2011; Deepak et al., 2023; Mavrodieva, 2029; Stecula & Merkley, 2019). Highlighting this further, Ariyo, Ariyo, and Okelola (2013) argue that media technologies, particularly television, serve as powerful tools for raising awareness about climate change, its hazards, effects, and adaptation strategies. In Nigeria, particularly in Ondo State, television awareness campaigns have been instrumental in educating residents about climate change-related threats and adaptation measures.

Climate change refers to a change which is attributed directly or indirectly to human activities that alter the composition of the global atmosphere and which are in addition to natural climate variability observed over comparable time periods (United Nations



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Framework Convention on Climate Change, 1992). It poses a significant challenge to sustainable development and threatens the achievement of the Millennium Development Goals (MDGs) and poverty eradication efforts worldwide. Climate change has particularly severe consequences for developing regions like Africa, Asia, and Latin America due to their low adaptive capacities and heavy reliance on rain-fed agriculture (Speranza, 2010). African countries such as Nigeria, Mali, Ghana, and Congo are especially vulnerable due to limited capital for adaptation measures, climate variability, and traditional practices like bush burning, deforestation, and environmental degradation (Fischer et al., 2005; Nnamchi & Ozor, 2009).

The media serve as critical instruments for delivering accurate and effective messages about climate change to diverse audiences (Arlt et al., 2011; Deepak et al., 2023). Their strength lies in their ability to disseminate timely information and influence public awareness (Stecula & Merkley, 2019). However, in Nigeria, media coverage of climate change remains inadequate. The focus on climate change is often reactionary, receiving attention only when natural disasters occur (Okhai, 2017). This lack of consistent, in-depth reporting limits public understanding of the causes and long-term effects of climate change. Given television's influential role in shaping public perception, it is essential to examine how it contributes to climate change awareness and adaptation efforts in Nigeria.

Boykoff (2007) highlights the role of climate change skeptics, who argue that biological and chemical processes in the atmosphere, such as carbon sequestration, offset the severe impacts of greenhouse gases. These skeptics, supported by high-emission industries, often utilize the media to downplay climate change concerns. Meanwhile, climate change continues to drive extreme weather events, rising sea levels, and environmental degradation, posing significant threats, particularly in vulnerable regions like Central America. In Nigeria, industrial activities and individual practices such as deforestation and bush burning further contribute to climate change, impacting adaptation efforts in communities like Ondo State (Adeleke & Omoboyeje, 2016; Ijaware & Olubaju, 2023; Tunde, 2011).

Despite the catastrophic consequences of climate change, media coverage remains inconsistent. While international events, such as the 2019 UN-organized conference in Copenhagen, have drawn media attention, the issue remains controversial (Stecula & Merkley, 2019). Some countries view media pressure to reduce emissions as an economic threat, as seen in resistance from India, China, and the USA during the Copenhagen conference. The inconsistent attention given to climate change in the media raises concerns about its influence on public perception and adaptive behavior. Given these concerns, this study explores how television coverage of climate change affects adaptive behavior among residents of Ondo State, Nigeria. Media analysts argue that the media must be guided on how to frame climate change coverage to accurately inform the public (Sampei & Aoyagi-Usui, 2019). Research is needed to assess how Nigerian media portray climate change and whether their coverage influences public attitudes and actions.

Thus, based on the study's background, the research questions are:

1. How does television reportage of climate change influence the adaptive behavior of residents in Ondo State?
2. To what extent are residents of Ondo State exposed to television coverage of climate change?
3. Does television coverage of climate change enhance public knowledge and

preparedness?

This study aims to investigate the impact of television coverage of climate change on the adaptive behavior of residents in Ondo State, Nigeria. Specifically, it seeks to assess how television reportage of climate change affects adaptive behavior in Ondo State. Determine the extent to which the public in Ondo State is exposed to television reports on climate change. Evaluate whether television coverage enriches public knowledge of climate change.

LITERATURE REVIEW

Media and Climate Change Communication

Effective communication, public outreach, and education are critical for fostering support for climate change policies and collective action (Mosser, 2017). The challenges of effectively communicating climate change to facilitate societal response remain significant. The role of media in disseminating information about climate change is particularly crucial, as it serves as the primary source of information for millions worldwide (Boykoff & Ravi, 2007). Television, radio, and the internet have become vital channels through which the public gathers knowledge on scientific issues, including climate change (Wilson, 1995).

Historically, the media have played a role in reporting scientific research related to environmental changes, including the relationship between deforestation and precipitation (Rajan, 2006; Grove, 2003). Early media narratives around climate change were speculative, with uncertainty about the causal relationship between greenhouse gases and climate change (Weart, 2003). The interchangeable use of the terms “global warming” and “climate change” further reflects public and media perceptions of climate issues. While global warming refers to the increase in Earth's surface temperature, climate change encompasses broader environmental impacts such as rising sea levels, melting glaciers, and extreme weather events.

Evolution of Media Influence on Climate Change Perceptions

With the rise of mass-circulation print presses, media access and influence expanded, allowing newspapers and later electronic media to shape public opinion significantly (McChesney, 2007). The economic viability of large news businesses enabled powerful entities, such as oil multinationals, to manipulate media narratives to present environmentally damaging activities as eco-friendly. This corporate influence persisted into the late twentieth century as multinational media conglomerates consolidated their control over global information dissemination (Boykoff & Ravi, 2007).

A pivotal moment in climate change communication occurred in 1988 when UK Prime Minister Margaret Thatcher and NASA scientist James Hansen publicly emphasized the dangers of anthropogenic climate change. Hansen's testimony to the U.S. Congress highlighted that global warming was predominantly caused by fossil fuel combustion (Shabecoff, 1988). These statements catalyzed significant media coverage and public discourse on climate change, reinforcing its urgency as a global issue (Ungar, 2012). Concurrently, the consolidation of media ownership and commercialization shaped the framing of climate change discussions, emphasizing corporate interests and economic considerations.

Media and Public Understanding of Climate Change

The rise of digital media in the 1980s increased competition and broadened access to environmental discussions. New media outlets dedicated substantial coverage to climate change, fostering heightened public awareness (McChesney, 2012). Supreme Master TV, for instance, highlighted the dangers and human suffering associated with climate change, framing it as one of the most pressing global threats after war (Supreme Master TV, 2019). However, the media's portrayal of climate change often presented it as a debate with two opposing sides, even when scientific consensus overwhelmingly pointed to human-induced warming (Schneider, 2019). Skeptics leveraged lingering uncertainties to question the legitimacy of climate science, despite mounting evidence of rising global temperatures and their impact on ecosystems (Mastrandrea & Schneider, 2009).

Political and economic dimensions of climate change gained prominence in the media, particularly in the context of global climate conferences such as the 2009 Copenhagen Summit. Leading media organizations, including BBC World and CNN, focused on the political controversies surrounding climate negotiations rather than the environmental consequences (Boykoff & Ravi, 2007). Al Jazeera, in 2013, characterized climate change conferences as ineffective, highlighting the reluctance of world leaders to commit to emission reduction targets due to economic pressures.

Climate Change Reporting in Nigeria

In Nigeria, environmental reporting gained momentum following the Koko waste dump disaster of 1987, which exposed the dangers of toxic waste disposal (Nwabueze, 2007). This incident catalyzed media interest in environmental pollution, particularly oil pollution in the Niger Delta. The Nigerian media also played a role in reporting extreme climate-related events, such as the 2021 flooding that displaced two million people across several states (Daily Triumph, 2020). Media outlets such as the Nigerian Television Authority (NTA) and Africa Independent Television (AIT) have reported extensively on shifting rainfall patterns, flooding, and other climate anomalies (NTA, 2019; AIT, 2012).

Despite this increased coverage, Nigerian media often report climate issues based on their perceived oddity, significance, or disaster magnitude rather than as a consistent, long-term issue (Oso, 2016). This study seeks to examine whether Nigerian newspapers have sustained interest in climate change coverage or only react to catastrophic events.

Media's Role in Climate Change Awareness and Action

Studies indicate that the media play a critical role in shaping public understanding and response to climate change. Wilson (2015) found that mass media is the primary source of climate knowledge for university students. Across Africa, while people increasingly recognize climate change's effects, many lack actionable information on mitigation and adaptation strategies (Sayne, 2014). Television, with its visual and auditory capabilities, is particularly influential in climate education (Luganda, 2017). The media's responsibility extends beyond reporting climate change events—it should actively influence policies and actions that address climate challenges (Nwabueze, 2017).

Research suggests a strong correlation between media portrayals and public concern about climate change (Boykoff & Roberts, 2017). For instance, in the United States, the media have shaped climate narratives, contributing to widespread perceptions of

uncertainty about climate science (Pollack, 2003). Krosnick and Horlbrook (2016) found that public beliefs about climate change are shaped by personal experiences, perceived consequences, and media messages. Their study highlighted that knowledge alone does not drive policy support—beliefs about human responsibility and national seriousness are crucial.

THEORETICAL FRAMEWORK

A theoretical framework serves as a foundation for understanding the underlying principles and perspectives that guide this study. It provides a roadmap for developing arguments and mobilizing theories to address the research problem effectively. In this case, Framing Theory is employed to interrogate the discourse surrounding television reportage of climate change and its impact on the adaptive behavior of residents in Ondo State, Nigeria.

Framing Theory

Framing Theory, a subset of the Social Constructionist Theory, is central to this research. According to Scheufele (2000), framing involves activating interpretive schemas rather than merely prioritizing specific objects or attributes. He explains:

“Agenda-setting and framing rely on the notion of attitude accessibility. Mass media have the power to increase levels of importance assigned to issues by audience members. They increase the salience of issues or the ease with which these considerations can be retrieved from memory. Framing, in contrast, is based on the concept of the prospect theory; that is, on the assumption that subtle changes in the wording of the description of a situation might affect how audience members interpret this situation. In other words, framing influences how audiences think about issues, not by making aspects of the issue more salient, but by invoking interpretive schemas that influence the interpretation of incoming information.” (Scheufele, 2000).

Similarly, Entman (1993) describes framing as the process by which journalists decide which aspects of an issue to highlight and how to connect these aspects to promote particular interpretations, evaluations, or solutions over others. In the context of this study, framing provides insight into how journalists report on climate change, how they represent different sides in climate-related debates, and how these representations shape public perception and adaptive behavior in Ondo State.

The role of mediation is also significant in framing climate change discussions. McQuail (2005) notes that media portrayals can range from neutral reporting to strategic manipulation of public opinion. The manner in which the media frames climate change stories can shape public understanding and behavior, either by promoting informed discourse or by reinforcing certain biases. Media outlets, particularly television, can selectively emphasize aspects of climate change, thereby closing off alternative perspectives—whether intentionally or not. This research examines how television reportage influences public attitudes and adaptive behaviors concerning climate change through dedicated climate change programs.

Additionally, this study investigates whether television reportage truly reflects objective journalism or if it inadvertently amplifies the views of climate change skeptics. It explores how certain media narratives allow scientists who doubt human-induced climate change to frame the discourse in a way that diverts attention from the core issues, such as the actual causes and consequences of climate change. By employing Framing Theory, this research critically evaluates the impact of television

narratives on climate change adaptation efforts and public response in Ondo State, Nigeria.

RESEARCH METHODOLOGY

This study adopted survey method and questionnaire was considered as a technique for gathering data. According to Ohaja (2003), research survey means the structuring of investigation aimed at identifying variables and their relationship. In gathering data in any survey work, the area of the study helps the researcher to determine a particular condition from the reaction of the subject concerned with the study. This study was carried out in the three selected Local Government Areas each from the three Senatorial Districts of Ondo State which include in, Akure South Local Government, Owo Local Government, Akoko South Local Government, to determine the impact of television on climate change on the adaptive behaviour of the residents of the selected local government areas. The area was randomly selected from the three Senatorial Districts of Ondo State and the findings will help to measure the validity of the study in other Local Government Areas of the state. The population of this study was 683, 496 and it comprised of the total population size of residents from the three selected Local Government Areas in Ondo State, Nigeria which include; Akoko North East from Ondo North Senatorial District, Akure South from Ondo Central, and Irele Local Government Area from Ondo South Senatorial District and the population is stated below.

Akoko North: 179	092
Akure South: 360	268
Irele: 144	136
Total: 683	496

Furthermore, a random sampling approach was employed and Taro Yamane formula was used to arrive at a reasonable sampling size. However, According to Asemah (2012), a sample is a limited number of elements selected from a population, which is representative of that population.

Taro Yamane's formula for sample size
$$n = \frac{N}{1 + N(e^2)}$$

where:

- N=683,49 (Population size)
- e=0.05 (Level of significance)
- 1 is a constant

Now, calculating step by step:

$$n = \frac{683,496}{1 + 683,496 \times (0.05)^2}$$

$$n = \frac{683,496}{1 + 683,496 \times 0.0025}$$

$$n = \frac{683,496}{1 + 1708.74}$$

$$n = \frac{683,496}{1709.74}$$

$$n \approx 399.8$$

Therefore, the sampling size of this study was 400. However, the 400 size was selected based on the fact that there was sameness in climate change across the selected local government areas, though the adaptive features of the respondents vary based on genealogical differences and immune resistance. Out of the total size selected, some average number of respondents was non-responsive based on health challenges because of their status in the society. However, some of them gave a relative response as they disclosed the impact of climate on their health status. Moreover, data from the three selected local governments was collected through primary sources, close-ended questionnaire, and interviews were conducted on residents from the three selected local governments, Ogbese, Ile-Oluji town in Akure North Local Government, Irele town in Irele Local Government and Ikare, Arigidi Akoko in Akoko North Local Government areas of Ondo State. Out of the purposive random sampling, a total number of 10 cases of non-response were recorded, because 4 participants were physically challenge and total number of 6 participants showed negative attitude towards the questions.

RESULTS

The table below entails Data Presentation, Analysis and Discussion of data collected through primary source of data collections. The quantitative analysis follows a rigid sorting of the data collected from the field source. It presented both personal data of the respondents and the variables from the field source.

Table 1: Questionnaire Administered

Questionnaire	No of Respondents	Percentage (%)
Total Rejected	10	2.5%
Total Recovered	390	97.5%
Total Administered	400	100%

The above table shows the distribution table of questionnaire administered, 10 representing (2.5%) questionnaires were rejected while 390 representing (97.5%) questionnaires were recovered by the researchers from the respondents. The above shows that 10 respondents representing 2.5% comprised non response case recorded related to physical challenge and negative attitude towards the research work.

Table 2: Gender Distribution of Respondents

Gender	No of Respondents	Percentage (%)
Male	272	70%
Female	118	30%
Total	390	100%

From the above table, 272 respondents representing 70% were males while the remaining 118 respondents representing 30% were females. Thus, the highest numbers of respondents were male as attested to by the highest number of respondents.

Table 3: Marital Status of the Respondents

Marital Status	No of Respondents	Percentage (%)
Single	126	32%
Married	264	68%
Total	390	100%

From the above table, 126 respondents representing 32% are single while the remaining 264 respondents representing 68% are married. Therefore, the highest number of respondents are married.

Table 4: Age Distribution of Respondents

Age	No of Respondents	Percentage (%)
25 – 30	9	2%
31 – 35	36	9%
36 – 40	64	16%
40 – 45	119	31%
46 and above	162	42%
Total	390	100%

The table above shows that 9 respondents, representing 2% are between 25 – 30years, 36 respondents representing 9% are between 31 – 35years, 64 respondents representing 16% are between 36 – 40 and 119 respondents, representing 31% were 40 – 45years while the remaining 162 respondents representing 42% are aged and above.

Table 5: Educational Background of Respondents

Qualification	No of Respondents	Percentage (%)
Primary School Leaving Certificate	-	-
SSCE	18	5%
ND/NCE	36	9%
HND/B.sc/BA	200	51%
M.sc/MA	108	28%
Other Qualifications	28	7%
Total	390	100%

From the above table, 18 respondents, representing 5% have SSCE, 36 respondents representing 9% possessed ND/NCE, 200 respondents representing 51% have HND/B.Sc/BA and 108 respondents representing 28% possess M.Sc/MA, while 28 respondents representing 7% have other unclassified qualifications.

Table 6: Religion Distribution of the Respondents

Religion	No of Respondents	Percentage (%)
Christianity	234	60%
Islam	118	30%
Other Religions	38	10%
Total	390	100%

From the above table, 234 respondents, representing 60% are Christians, 118 respondents, representing 30% are Muslims, and the remaining 38 respondents representing 10% practice other religions not specified in the study.

Table 7: Impact of television reportage of climate change on adaptive behaviour of the residents in Ondo State, Nigeria

S/N	Variables	No of Respondents	Percentage
1	Does television reports cover issues related to climate change in Ondo state?	Yes	304 78%
		No	86 22%
		Total:	390 100%
2	Does television reportage of climate change have any impact on your adaptive behavior?	Yes	257 66%
		No	133 34%
		Total:	16 4%
3	What impact does television reportage of climate change have on your adaptive behavior?	Adaptive features regulation	20 5%
		Safety and Precaution	78 20%
		Changes in adaptive Behavior	61 16%
		All of the above	231 59%
		Total	390 100%

In the above table, item 1 shows that 304 respondents, representing 78% admit that television reports cover issues related to climate change in Ondo State, Nigeria, while the remaining 86 respondents, representing 22% have contrary opinion. Moreover, item two also shows that 257 respondents, representing 66% admit that television reportage of climate change have impact on their adaptive behaviours while the remaining 133 respondents, representing 34% have contrary opinion. Finally, item 3 shows that 20 respondents, representing 5% admit that adaptive features regulation is the impact that television reportage of climate change have on their adaptive behaviour; 78 respondents, representing 20% admit that safety and precaution are the impacts television reportage of climate change have on their adaptive behaviour; 61 respondents, representing 16% admit that changes in adaptive features is the impact that television reportage of climate change have on their adaptive behaviour while the remaining 231 respondents, representing 59% admit that adaptive features regulation, safety and precaution and changes in adaptive features are the impacts that television reportage of climate change have on their adaptive behaviour.

Table 8: Public Exposure to Television Reports on Climate Change in Ondo State and Its Impact on Knowledge and Adaptive Behavior

S/N	Variables	No of Respondents	Percentage
1	Are you exposed to any television report based on climate change in Ondo State?	Yes	308 79%
		No	82 21%
		Total:	390 100%
2	To what extent are you exposed to television reports on climate change?	To a greater extent	125 32%
		To some extent	167 43%
		On a rare occasion	16 4%
		No response	82 21%
		Total	390 100%
3	Are you properly informed on issues related to climate change in Ondo State, Nigeria?	Yes	204 52%
		No	186 48%
		Total:	390 100%
4	Did information received through the report enrich your knowledge of climate change?	Yes	192 49%
		No	12 3%
		Not applicable	186 48%
		Total:	390 100%

In table 8 above, item 1 shows that 308 respondents, representing 79% admit that they are exposed to television reports based on climate change in Ondo State, Nigeria, while the remaining 82 respondents, representing 21% have contrary opinion. Moreover, item 2 also shows that 125 respondents, representing 32% admit that they are exposed to television reports on climate change, to a greater extent; 167 respondents, representing 43% admit that they are exposed to television reports on climate change, to some extent, while the remaining 16 respondents, representing 4% admit that they are exposed to television reports on climate change on rare occasions and the remaining 82 respondents, representing 21% have contrary opinion. Item 3 of the above table also shows that 204 respondents, representing 52% admit that they are properly informed on issues related to climate change in Ondo State, Nigeria, while the remaining 186 respondents, representing 48% have contrary opinion. Finally, item 4 shows that 192 respondents, representing 49% admit that the information they received through the report enriched their knowledge of climate change; 12 respondents, representing 3% have contrary opinion while the remaining 186 respondents, representing 48% admitted that the information they received through the report is not applicable to them.

DISCUSSION

The above tables show the analyses and presentation of collected and collated data for this paper. However, table one was based on the impact of television reportage of climate change on adaptive behaviour of the residents in Ondo State, Nigeria. It was discovered in item 1 that television report covers issue related to climate change in Ondo State, Nigeria, as attested to by highest number of 304 respondents, representing 78%. Moreover, item 2 of the same table revealed that television reportage of climate change have impact on the adaptive behaviour of majority of the respondents as attested to by

the highest number of 257 respondents, representing 66%. Therefore, it can be deduced from the above that television reports on issues related to climate change in Ondo State, Nigeria, have impact on the adaptive behaviour of majority of the respondents as attested to by the highest number of respondents.

Table 2 was based on the extent to which Ondo State publics are exposed to television reports on climate change and whether information received on television enriched public knowledge of climate change. Item 1 revealed that majority of the respondents are exposed to television report based on climate change in Ondo State, Nigeria, as attested to by the highest number of 308 respondents, representing 79%. Furthermore, it was discovered in item 2 that majority of the respondents are exposed to television reports on climate change, to some extent, as attested to by the highest number of 167 respondents, representing 43%. Item 3 of the same table also revealed that the highest number of 204 respondents, representing 52% are properly informed on issues related to climate change in Ondo State, Nigeria. Moreover, regarding to whether information received on television enriched public knowledge of climate change, it was discovered in item 4 that information received on television enriched public knowledge of climate change as attested to by the total highest number of 192 respondents, representing 49%. Therefore, it can be deduced from the above discussion that Ondo State publics are exposed to television reports on climate change, and also that information received on television enriched public knowledge of climate change as attested to by the highest number of respondents. Finally, item 3 in table 1 attest to the impact of television reportage of climate change on adaptive behaviour of the respondents where the total highest number of 231 respondents, representing 61% admit that adaptive features regulation, safety and precaution and changes in adaptive features are the impacts of television reportage of climate change on adaptive behaviour of the respondents. Therefore, it can be deduced from the above that adaptive features regulation, safety and precaution and changes in adaptive features are the impacts of television reportage of climate change on adaptive behaviour of the respondents.

CONCLUSION AND POLICY RECOMMENDATION

This paper examined the impact of television reportage of climate change on adaptive behaviour of the residents in Ondo State, Nigeria; it also ascertained the extent to which Ondo State publics are exposed to television reports on climate change. The study makes use of survey design, and framing theory was considered appropriate in order to support the study proposition. However, the study findings concluded that television report on issue related to climate change in Ondo State, Nigeria, have greater impact on the adaptive behaviour of people residing in Ondo State, Nigeria; and also that adaptive features regulation, safety and precaution and changes in adaptive features are the impacts of television reportage of climate change on adaptive behaviour of the people. The study recommends that:

1. Media as agenda setting agents for the public should be more proactive in reporting issues related to climate change in order to enlighten the general public.
2. It also recommends that government agency, especially those related to public service should endeavour to engage in media campaign on issues related to climate change in order to give objective information to the general public on issues related to climate change, especially in Ondo State, Nigeria.
3. The media especially the broadcast media should have a specialized desk with subject matter experts who will go beyond reportage, and run an expert commentary and opinion on climate change by positioning it as urgent.

DECLARATION OF COMPETING INTEREST

The authors declare that no conflict of interest exists.

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