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Reporting of Climate Change News in Three Nigerian Newspapers

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Abstract

The trend of news frame in the print media has implications for public perception of emerging development issues and actions that members of the public in general and farmers in particular will take in similar situations in the future. Combining the occurrence of climate change topical news variables and framing theories, this study content-analysed 111 climate news items framed in three Nigerian newspapers (the Guardian, Punch and Nigerian Tribune) between January 2010 and June 2011. Variables measured included news types, placement, sources, space allotted and period of report of climate change related stories. Data were analysed using both descriptive (frequency, percentage) and inferential (chi-square) statistics at $p < 0.05$. Across the three newspapers, types of news reported as a result of climate change were flooding (41.4%) and oil spillage (27.9%). They were strategically placed at the front (32.4%) middle (36.0%) and back (31.5%) pages of the newspapers. The newspapers quoted news reporters of other media organizations (62.2%) and government officials (22.5%) as major sources of their climates change information. Space allocated to climate change news was higher in the Guardian newspaper (897cm²) compared to the Punch and the Nigerian Tribune (884cm²). Major frames found in these dailies include warning, solution, disaster, awareness, call for assistance and blames. Types of climate change news did not affect placement given to coverage of such news ($X^2 = 13.45$; $p = 0.20$). In spite of competition for space and prominence by wide range of development issues, climate change news coverage relatively enjoyed prominence. Therefore, efforts should be made to sustain this given the menace climate change portends in the face of any neglect by stakeholders especially the media.

Keywords: Climate change, News framing, Nigerian newspapers.

Introduction and Background Statement

Climate change manifests in various forms and dimensions with its effects felt locally, nationally, and globally. For instance, the massive earthquake that affected Japan is one of the strongest in recorded history at 8.9 on the Richter scale (The Nigerian Tribune, August 6, 2008). Nationally, Ihedioha (2007) observes that every state of the Nigeria federation across the various ecological zones suffers from the effects of one climate variable change or the other. Desertification of the Sahel belt increases unpredictability of summer rains; rapid contraction of Lake Chad due to drought has shrunk it to almost 5 percent of its size in 40 years, decreased agricultural productivity in the northern part of Nigeria and reduced availability of water for irrigation. Other effects include desertification of about 50 percent of the Guinea savannah region, loss of coastal zone infrastructure, reduction of settlement and agricultural lands, reduced hydrocarbon extraction activities in the Niger Delta and increased risk of oil spills. All have negative effect on human health, transport routes and on electricity supply and distribution.

Based on the Intergovernmental Panel on Climate Change (IPCC)(2007) assumptions, a preliminary integrated assessment model predicts that climate change could also result in a loss in gross domestic product of between 6 percent and 30 percent by 2050, with an estimated 100 to 400 billion US dollars in Nigeria. All the main sectors in Nigeria's economy will be impacted by climate change but in particular agriculture, infrastructure such as water, transport and power are also susceptible and will have knock-on effect of the economy especially wholesale and retail ventures.

Climate change is perhaps the most serious environmental threat to the fight against hunger, malnutrition, diseases and poverty in Africa, mainly through its impact on agricultural productivity. The negative effect on agricultural yields will be exacerbated by more frequent extreme weather event. For example, IPCC (2001) states that rising atmosphere of carbon dioxides concentration leads to higher temperature change. The frequency of extreme event will affect the quality, quantity, volume, stability of food production and the natural environment where agricultural activities take place. Climatic variation will have consequences for the availability of water resources, frequency of pest and diseases and soil quantity, leading to significant dangers in the condition for agriculture and livestock production. This is likely to increase dependency on food importation and the number of people at risk of famine. There are also the problems of flood, sewage, deforestation, buried hazardous chemicals and general urban infrastructure (Adegoroye, 1997).

Given the above scenario, there are dire consequences and effects to agriculture and its practices among teeming farmers in Nigeria. This is as witnessed in continuous crop failures and reduced yields in most agricultural products over the years. There is therefore the need for awareness creation, education and general mobilization of farmers on issues of climate change that are germane to farmers

and farming practices. This amongst other will include series of changes inherent in local communities across Nigeria arising directly from climate change and mitigation of effects of such changes.

It is in the light of the aforesaid that this study examined the framing of climate change news by investigating what the newspapers emphasize in their coverage of climate change. Most framing literatures on health issues indicate that the media cover them as posing a threat to humans. In addition, many of the research findings reveal that media coverage of the news is presented in such a way that the audience may perceive that only people who can solve the problem associated with health issues are experts, mainly government officials and scientists. Most climate change news come as an alert as witnessed in 1987 with deposit of toxic waste in the sleepy village of Koko in the then Bendel State. This marked the beginning of active reporting on environmental news in Nigeria (Umejamomere, 1992).

Therefore, combining the occurrence of climate change topical news variables and framing theories, the reportage of the climate change news was investigated in this study with the following specific objectives:

1. ascertain the framing of climate change news in the Nigeria newspapers
2. determine types of climate change news reported by these newspapers
3. identify sources of information quoted in the reported news
4. ascertain space allotted to this news
5. ascertain placement given to climate change news in these newspapers

Methodology

The unit of analysis for this study was individual article reporting climate change news in the selected newspapers. Time frame for this study is the first day of January 2010 to 30th of June 2011. This is justified with the assumption that this time frame provides recent trend in climate change reporting in relation to the time of the research. It is expected that the various extreme weather conditions and natural environmental phenomena which are all indicators of changes in the climate were covered in this period to enable analysis of the news.

A multi-stage sampling technique was used to select samples for this study. The first stage was the selection of newspapers based on percentage readership amongst the ten largest newspapers in Nigeria (Media Reach OMD Nigeria, 2005). Three newspapers (The Guardian, The Punch and The Nigerian Tribune) with the highest percentage readership were purposively selected. The second stage was the selection of newspaper editions. All newspaper editions reporting climate

change news from January 1, 2010 to June 30, 2011 in the Guardian, the Nigerian Tribune and the Punch newspapers constituted the population for this study. In the third stage, number of climate change news was gathered from all the chosen media. Thirty-seven, 55 and 60 climate change related news were culled from the Guardian, Nigerian Tribune and Punch, respectively. In the fourth and final stage, all climate change news related items (37) from the Guardian were sampled and quota sampling method was used to select 37 news items randomly from each of the Nigerian Tribune and the Punch to give a total sample size of 111 climate change news related items. Articles for this study were gathered from the research library data base of Kenneth Dike Library, University of Ibadan using key words "climate change news". Articles that were selected for the research include news articles, feature article and culled articles.

Inter coder reliability test was carried out for the purpose of ensuring the reliability of the data collected for the study. Reliability test with two coders was carried out using Holsti's (1985) reliability formula. The inter-coder reliability coefficient obtained for the three selected newspapers was 0.53.

Data Analysis

Descriptive statistics (frequency and percentage) were used to arrange and describe the data collected while inferential statistics (chi-square) was used to test for relationship between study variables.

Results and Discussion

Framing of Climate Change News in Nigeria Newspapers

Six frames emerged and included warning, solution, disaster, awareness, call for assistance and blame.

Warning – This frame enlightened and gave advice to the entire public on climate change as well as the benefits of adherence to the warning to their wellbeing, environment and health. For instance, the Nigerian Tribune on March 20, 2010 carried a banner headline titled Tsunami possible in Nigeria, Senate warns.

Solution – These were frames that emphasized the role of government, the residents and the entire public in taking necessary measures to prevent climate change disasters through policy formulation and funding. In this light, The Punch July 26, 2010 came out with the headline, How to control Ogun floods.

Disaster - This frame detailed effects of climate change occurrences of low or high magnitude that brought about harm or suffering, discomfort to both humans and livestock. It emphasized the effects of climate change problems on man and his interest such as environment, buildings, roads, agriculture and human lives. For instance "World move as 100,000 die in Haiti quake" was on the The Guardian of January 4, 2010.

Awareness – This frame sought to educate the general public about climate change and measures of controlling them. The frame also conveyed findings of research done on climate change to the public. Ecological disaster looms in Cross River.(The Nigerian Tribune, May 11,2010) aptly describes the tone of most awareness based frames in Nigerian newspapers.

Call for assistance – This frames expressed formal demand for help from an authority or individual to be proactive to alleviate effects or occurrence of climate change. This came mostly from the general public to government officials to either complete abandoned road project ranging from construction of drainages, building of bridges or construction of roads. One of such was on the April 26, 2011 edition of the Tribune titled 'Save us from flood"- a call from Toju Sango- Ota residents.

Blame – The frame expressed accusations. It reported who or which authority was responsible for activities that might lead to climate change e.g. Gas flaring menace; group calls on Federal Government to penalize every contractor. (The Nigerian Tribune November 1, 2010).

News Type Reported by the Three Newspapers

Results in Table 1 show the types of news that were reported by the newspapers within the study time frame. Most prominent of the news types were flooding (41.4%) and oil spillage (27.9%). The Nigerian Tribune covered flood related news (56.8%) than Punch (43.2%) and the Guardian (24.3%). However, oil spillage was reported more in the Guardian (35.1%) compared to Punch (27.0%) and the Tribune (21.6%). Close examination of the news about flooding reveals that intensity of rainfall and the effect it had on property, human lives and the environment featured significantly while news about oil spillage were related to indiscriminate emission of hazardous chemicals that could lead to increase in greenhouse effects or global warming. These invariably have implication for agricultural production as amount of rainfall (reduction or increment), rendering of otherwise fertile agricultural lands infertile due to release of chemicals from oil spillage all impact agricultural production negatively. Also, both flood and oil spillage news was most climate change effects noticed locally in Nigeria's situation. The low reportage of earthquakes, emission and volcanic eruption can be explained by the fact that these are rare occurrences in Nigeria.

TABLE 1
Climate news types reported by three newspapers

News types	Newspapers			Total
	Guardian	Tribune	Punch	
Flooding	9 (24.3)*	21 (56.8)	16 (43.2)	46 (41.4)
Earthquake	5 (13.5)	1 (2.7)	4 (10.8)	10 (9.0)
Emission	0 (-)	3 (8.1)	5 (13.5)	8 (7.2)
Volcanic eruption	3 (8.1)	0 (-)	1 (2.7)	4 (3.6)
Oil spillage	13 (35.1)	8 (21.6)	10 (27.0)	31 (27.9)
Tsunami	7 (18.9)	3 (8.1)	1 (2.7)	11 (9.9)
Climate news	0 (-)	1 (2.7)	0 (-)	1 (9.0)
Total	37 (100)	37 (100)	37 (100)	111 (100)

*Figures in parentheses are in percentage

Newspapers' Sources of Climate Change News

The result in Table 2 indicates sources used in reporting climate change news by the newspapers. Newspapers obtained their information from two major sources namely; news reporter (62.2%) and government official (22.5%). These sources were mainly newspapers correspondents or columnists who covered environment beats for the newspapers or government officials from environment or science and technology ministries at both state and federal levels.

Across the tabloids, the Guardian (75.7%), the Punch (72.9) and the Tribune (37.8) attributed their source of the news to their energy and environment correspondents. Also, government officials were quoted mostly by the Tribune (37.8%) compared to the Punch (16.2%) and the Guardian (13.5). Overall low patronage by the research institutes (7.2%) and the universities (4.5%) suggests that there is dearth of research activities in these centres or worst still, inaccessibility to research findings from ivory towers and research institutes that have mandate to produce knowledge for better living in all facets of human activities.

TABLE 2
Sources of climate change news reported by the newspapers

Sources	Newspapers			Total
	GUARDIAN	TRIBUNE	PUNCH	
RESIDENT NEWS REPORTER	0 (-)	4 (10.8)	0 (-)	4 (3.6)
UNIVERSITY SCIENTIST RESEARCH INSTITUTE	2 (5.4)	2 (5.4)	1 (2.7)	5 (4.5)
GOVERNMENT OFFICIAL	2 (5.4)	3 (8.1)	3 (8.1)	8 (7.2)
	5 (13.5)	14 (37.8)	6 (16.2)	25 (22.5)
TOTAL	37 (100)	37 (100)	37 (100)	111 (100)

**Figures in parentheses are in percentage (from the content analysis of the newspapers)*

Space Allotted to Climate Change News in Nigerian Newspapers

Table 3 shows the data on spaces dedicated to climate change news by various newspapers. The Nigerian Tribune had the least minimum (20 cm²) and maximum spaces (884cm²) allotted to climate change news compared to the Punch (24 cm²; 884.9 cm²) and the Guardian (45.5 cm²; 897 cm²). This implies that the Tribune did not give climate change news space priority in the period. However, across the 37 news items each analysed across the newspapers, the Tribune had more total space (9339 cm²) allocated to climate change news compared to the Guardian (7831.2 cm²), but less than the Punch (11,216 cm²). The Punch had the highest average (\bar{x} = 303.1 cm²) space allotted to climate space news as against the Tribune's 252.4 cm² and the Guardian having the least average space (\bar{x} = 211.6 cm²) allotted to climate change news. Overall, it can be concluded that given the competing demands for space in these tabloids, the three tabloids are quite responsive to climate change news and current trend in development cycle.

TABLE 3
Distribution of space allotted to climate change news in Nigeria tabloid

Space allotted	Guardian	Tribune	Punch
Minimum	45.50	20.00	24.00
Maximum	897.00	884.00	884.9
Total	7,831.2	9,339	11,216
Mean	211.6	252.4	303.1

Place of Climate Change News in Nigeria Newspapers

More than one-third (36.0%) of the climate change news covered within the period were in the middle pages while 32.4% and 31.5% were placed in the front and back pages respectively. However, if taken together, more climate change news was strategically placed in the front and back pages (63.9%). The result contradicts several submission of scholars who had indicted print media as not very responsive to development news germane to human survival especially agriculture and related areas of human development. For instance, Olowu and Yahaya (1993) and Omofonmwan and Osa – Edoh (2008) concluded in their various studies that despite increase in the number of newspaper published in Nigeria, coverage of rural development news that contribute to agricultural production by newspaper journalists is abysmally low. Perhaps for the dire consequences that could accompany neglect of climate change news, similar lukewarm attitudes may have been displayed by the print media. The table further reveals that the Guardian newspaper was more forthcoming in strategic placement of climate change news as the bulk of its placement of the news were in the front (35.1) and back pages (35.1%). This contradicts earlier findings by Fawole and Olajide (2012) that implicated the Guardian as not responsive to wider development issues in its coverage and placement of such issues in strategic places like the front and back pages of the newspapers.

TABLE 4
Distribution of placement of climate change news in the newspapers

Position	Guardian	Nigeria Tribune	Punch	Total
FRONT	13 (35.1)	12 (32.4)	11 (29.7)	36 (32.4)
MIDDLE	11 (29.7)	14 (37.8)	15 (40.5)	40 (36.0)
BACK	13 (35.1)	11 (29.7)	11 (29.7)	35 (31.5)
TOTAL	37 (100)	37 (100)	37 (100)	111 (100)

**Figures in parentheses are in percentage*

Relationship between types and newspapers placement of climate change news

Table 5 presents the result of the chi-square analysis of types of climate change news and placement of the news by the tabloids. The result indicates that there is no significant relationship ($X^2 = 13.45$; $p = 0.20$) in the types of climate change news and placement of such news. This implies of climate change news enjoy similar attention and priority in their placement by the tabloid. Irrespective of varieties of climate change news ranging from flooding, earthquakes and oil spillage, the tabloids were responsive to strategic placement of climate change news.

TABLE 5
**Chi square analysis of types and newspapers placement of
climate change news**

Variable	X ² cal	Df	P-value	Decision
	13.45	10	0.200	NS

Notes.

X² Cal –chi square

Df – degree of freedom

NS –not significant P > 0.05

Conclusion and Recommendation

Given the data from this study, it can be inferred that the newspaper coverage of climate change news was widespread covering all areas of climate change. Most climate news bothered on what applies to Nigeria's local climate situation. While verifiable sources were quoted in the news as sources, research institutes and universities were sparingly quoted. The tabloids are quite responsive to climate change news relevant and current in local content and are fairly strategically placed. Also, irrespective of types of climate change news, the news was well placed. It is therefore recommended that;

1. Editors of the newspapers should be steadfast in maintaining current trend in the coverage of the climate change news.
2. Environment correspondents in the tabloid should beam their search lights to universities and research institutes to uncover available knowledge in research findings in these institutions.

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