



World Wide Journal of Multidisciplinary Education and Research

WWJMER 2024;2(01): 01-06

www.wwjmer.com

International Journal

Peer Reviewed Journal

Refereed Journal

Indexed Journal

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Newspaper Coverage of Agricultural Related Climate Change Issues (2020-2022)

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Abstract

The aim of this research was to evaluate the coverage of agricultural related climate change issues in selected Nigerian newspapers within a three year study period (2020-2022). Purposive sampling was used to select three newspapers, Daily Sun newspaper, Punch newspaper and Vanguard newspaper for the study. Data for this study was collected from 216 daily publications which were also analyzed using the simple descriptive statistics and the following specific objectives were analysed using the simple descriptive statistics; to determine the volume of agricultural related climate change information reported, and to determine the category of newspaper article used in covering agricultural related climate change issues. Results showed only 0.53%, 1.56% and 1.95% coverage of agricultural related climate change issues in 2020, 2021 and 2022 respectively. The major category of newspaper articles used to report on agricultural-related climate change issues were feature articles with 7.60% while cartoons with 0% was the least category of newspaper article used in reporting agricultural related climate change issues. Additionally, a two-way ANOVA on the interaction between year of publication and the content categories on volume of coverage revealed $F_{\text{calculated}}$ values of 87.826 at 1% significant difference, 67.921 at 1% significant difference, and 32.000 at 1% significant difference, respectively thereby indicating a strong positive correlation coefficient. It was however concluded that agriculture-related climate change issues received insufficient coverage in the three newspapers analyzed. It was recommended that Nigerian media must cover issues related to agriculture and climate change considerably because such issues are seen as important to the public to the extent that the media makes them appear to be.

Keywords: Agricultural news, Climate change, Newspapers, Vanguard, Daily Sun, Punch.

Introduction

Humanity can no longer deny the impact of climate change as we can feel and see it manifest in various happenings around the world such as notable changes in rainfall patterns and weather patterns, reoccurring flooding disasters around the world, extreme heatwaves, etc. (Whyte, Numbere & Sam, 2020). Over 33 million Africans (distributed over Madagascar, Malawi, Mozambique, Zambia, Zimbabwe, South Sudan, Sudan, Ethiopia, Somalia, and Kenya) were subjected to food and insecurity crises as a result of climate change (Health of Mother Earth (HOMEF), 2020). In Africa, for instance, where lower-income nations experience disproportionately high rates of natural catastrophe casualties and economic losses that can reach 10% of GDP in tiny, vulnerable economies, the impact of climate change on food security is particularly pronounced (Eckstein, Künzel, & Schäfer, 2021).

With negative repercussions perceived at all scales, from the global to the local, climate change concerns continue to plague the 21st Century. The economic slowdown in countries has been closely connected to such repercussions. Agrarian economies in sub-Saharan Africa are expected to be the most negatively impacted by food insecurity issues as a result of their reliance on rain-fed agriculture, according to scientific data on the effects of global warming (International Food Policy Research Institute, 2019). Impacts on agricultural productivity are heavily emphasized in growing economies in order to support rural populations. For instance, the short supply of certain food items such as fresh pepper, vegetables, tomatoes, corn and other agricultural produce across Nigerian markets in the month of June 2012, raised a lot of questions as to what was wrong (Bohr, 2020). Traders and farmers in the country attributed

that event to inconsistent rainfall which was a direct consequence of climate change. BBC news on 24th October, 2022 also reported that many states in Northern Nigeria migrated from prolonged drought to immense flooding. This led to the displacement of over two (2) million persons, death of livestock due to submerging of villages in water, crop failure etc. Some of the affected states included Kano state, Niger, Sokoto, Kebbi, Katsina, Zamfara and Jigawa state.

Without fully utilizing all channels for agricultural information dissemination, agriculture cannot experience significant development because this knowledge is best shared through the use of as many channels as feasible. When newspapers are utilized to disseminate agricultural information, in addition to the benefits of other mass media outlets, material can be archived for future use. As a result, it shouldn't be underused in the area of agriculture (Mtega, 2021). However, it has been claimed that the lack of attention paid to climate change-related issues in these regions is due to a lack of understanding of the issues and funding for research. This view has been canvassed by scholars (Bohr, 2020; Nwabueze, & Egbra, 2016; Ajaero, & Anorue, 2018) who claim that most Nigerian reporters lack requisite knowledge of climate change, the fund to embark on extensive coverage of climate change and the trainings they need to improve their competences in this respect. The Nigerian government is, in addition, accused of not showing seriousness in tackling the issue of climate change especially in areas of policies, laws and funding mass media campaigns (Elia, 2019).

To this end, it becomes vital to ascertain the extent to which Nigerian newspapers provide the general people with information on agriculturally linked climate change issues using the following specific objectives.

- i. determine the volume of agricultural related climate change information reported in Nigerian Newspapers.
- ii. determine the category of newspaper article used in covering agricultural related climate change issues in Nigerian Newspapers.

In order to realize the specific objectives of this study, the following research questions are posed.

- i. What is the volume of agricultural related climate change issues reported in Nigerian Newspapers.
- ii. What category of newspaper article is used in the coverage agricultural related climate change issues in Nigerian Newspapers.

To further solidify the research questions, the following hypothesis was formulated:

H0: There is no interaction between both the year of publication, and the content categories on the volume coverage of agricultural related climate change issues by Newspapers in Nigeria.

Methodology

The research made use of a combination of both descriptive research design and content analysis design. The descriptive approach makes it easy when gathering samples from a population to examine a current existing condition escribing the circumstances of such condition the way it actually is. Content analysis on the other hand involves the objective methodical examination of the manifest content of written materials such as books, journals, magazines and newspapers. In the context of this research the evident content of newspapers such as editorials, letters-to-the-editor, opinion pieces, news items, features, cartoons, photos, and other illustrations were examined.

This research was done in Nigeria. Nigeria is a nation on the west coast of Africa, with Abuja serving as its capital. On the west coast of Africa, the Federal Republic of Nigeria is situated along the interior of the Gulf of Guinea. The nation is bordered to the west by Benin, to the north by Niger, to the east by Chad, and to the south by the Gulf of Guinea in the Atlantic Ocean (World Bank Group, 2021). Nigeria is made up of 36 states and the federal capital territory. There are 200 million people living there, according to estimates (United Nations Population Division, 2019).

Sampling Technique

The population of this study consisted of all 282 daily newspapers published in Nigeria between year 2020 and 2022 (NPC, 2013). Three newspapers were purposefully chosen for this research due to their accessibility, high readership, comprehensive coverage of issues, and widespread appeal (Ojemola, 2019). These newspapers are Punch Newspaper, Vanguard Newspaper and Daily Sun Newspaper. Systematic sampling technique was used to choose four months every year for each of the three newspapers making a total of 12 months for the three newspapers respectively within the study period. Secondly, two weeks (1st week and 3rd week) from each month were chosen to be studied, and then 3 days from each week were analysed. Therefore, data was collected from 216 daily publications within the study period.

Table 1: Total number of Newspaper Publications studied for this research work.

Name of Newspaper	Year of Publication			Total
	2020	2021	2022	
Punch Newspaper	24	24	24	72
Daily Sun Newspaper	24	24	24	72
Vanguard Newspaper	24	24	24	72
Total	72	72	72	216

Source: Field Survey

Data Collection

Secondary data were utilized in data collection. The individual agricultural news was counted to derive the number and frequency of agricultural news reported; category of newspaper article used in reporting agricultural related climate change issues such as lead stories, front page

headlines, editorials, advertisement and special events covered in the newspaper(s) in question. Tables were used in the presentation of results.

Data Analysis

Data obtained were analyzed using descriptive statistical tools such as percentages and frequency distributions and a

quantitative data analysis was carried out using SPSS (version 26).

Results and Discussion

The results of this research are summarized as follows:

Table 2: Volume of Coverage of Agricultural related Climate Change issues by Year.

NEWSPAPERS	2020			2021			2022		
	A	a	Coverage(%)	A	A	Coverage(%)	A	a	Coverage(%)
Daily Sun	2323	12	0.52	2323	38	1.64	2323	41	1.76
Punch	2232	13	0.58	2232	32	1.43	2232	40	1.79
Vanguard	2424	12	0.50	2424	39	1.61	2424	55	2.27
Total	6979	37	0.53	6979	109	1.56	6979	136	1.95

Source: Field Data, 2023

A: Total number of issues in the Newspapers; **a:** total number of agricultural related climate change issues found in the newspapers.

The data on Table 2 reveals that out of a total of 6979 issues found in the newspapers in the year 2020, agricultural related climate change issues accounted for only 0.53% in the selected newspaper. The Punch newspaper with 0.58% (13 agricultural related climate change issues out of a total of 2232 issues in the newspaper within the study period) recorded the highest number of agricultural related climate change issues followed by the Daily Sun newspaper with 0.52% (12 agricultural related climate change issues out of a total of 2323 issues in the newspaper within the study period) and then the Vanguard newspaper with 0.50% (12 agricultural related climate change issues out of a total of 2424) issues in the newspaper within the study period). In the year 2021, agricultural related climate change issues accounted for only 1.56% (109 agricultural related climate change issues out of a total of 6979 issues in the newspaper within the study period) in the selected newspaper. The Daily Sun newspaper with 1.64% recorded the highest

number of agricultural related climate change issues (38 agricultural related climate change issues out of a total of 2323) followed by the Vanguard newspaper with 1.61% (39 agricultural related climate change issues out of a total of 2424) and then the Punch newspaper with 1.43% (32 agricultural related climate change issues out of a total of 2232). The year 2022, saw a slight increase in the reporting of agricultural related climate change issues which accounted for only 1.95% (136 agricultural related climate change issues out of a total of 6979) in the selected newspaper. The Vanguard newspaper with 2.26% recorded the highest number of agricultural related climate change issues (55 agricultural related climate change issues out of a total of 2424) followed by the Punch newspaper with 1.79% (41 agricultural related climate change issues out of a total of 2323) and then the Daily Sun newspaper with 1.76% (40 agricultural related climate change issues out of a total of 2232).

Category of news article used in the coverage of agricultural related climate change issue

Table 3(a). Feature articles on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

NEWSPAPERS	Frequency		
	A	A	Coverage(%)
Daily Sun	504	37	7.34
Punch	432	28	6.48
Vanguard	432	39	9.03
Total	1368	104	7.60

Source: Field Data, 2023

A: Total number of features in the Newspapers; **a:** total number of features on agricultural related climate change issues found in the newspapers.

From table 3(a), it is evident that out of 1368 feature articles that were recorded in the three newspapers within the study period of 2020 to 2022, only 7.60% feature articles were found on agricultural related climate change issues (104 agricultural related climate change issues out of a total of 1368). A feature is a longer piece of writing than a news story. It will often cover an issue in greater depth than a news story would do; or it might look at an ongoing story from a

different angle, having more pictures and in-depth explanation than a straight news article. The Vanguard newspaper had the highest coverage of agricultural related climate change issues with 9.03% (39 agricultural related climate change issues out of a total of 432), followed by the Daily Sun newspaper with a coverage of 7.34% on agricultural related climate change issues (37 agricultural related climate change issues out of a total of 504) and the Punch newspaper with 6.48% on agricultural related climate change issues had the lowest coverage (28 agricultural related climate change issues out of a total of 432).

Table 3(b). Straight news on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Newspapers	Frequency		
	A	A	Coverage(%)
Daily Sun	3024	22	0.73
Punch	3096	24	0.78
Vanguard	2952	28	0.95
Total	9072	74	0.82

Source: Field Data, 2023

A: Total number of straight news in the Newspapers; **a:** total number of straight news on agricultural related climate change issues found in the newspapers.

Straight news articles on the other hand provide basic information to readers (the who, what, where, when, why, and how) on current events. The table 3(b) indicates that out of a total of 9072 straight news found in the three newspapers within the study period, only 0.82% straight news on agricultural related climate change issues was

discovered (74 agricultural related climate change issues out of a total of 9072). Vanguard newspaper with 0.95% had the highest coverage of agricultural related climate change issues (28 agricultural related climate change issues out of a total of 2952) followed by Punch newspaper with a coverage of 0.78% (24 agricultural related climate change issues out of a total of 3096) and Daily Sun newspaper had the least coverage with 0.73% (22 agricultural related climate change issues out of a total of 3024).

Table 3(c). Adverts on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Newspapers	Frequency		
	A	A	Coverage(%)
Daily Sun	288	1	0.35
Punch	216	1	0.46
Vanguard	360	1	0.28
Total	864	3	0.35

Source: Field Data, 2023

A: Total number of adverts in the Newspapers; **a:** total number of adverts on agricultural related climate change issues found in the newspapers.

From table 3(c), 864 adverts were recorded in the three newspapers within the study period, only 0.35% coverage of adverts was discovered on agricultural related climate issues (3 agricultural related climate change issues out of a total of 864). Punch newspaper had the highest coverage of 0.46%

on agricultural related climate change issues (1 agricultural related climate change issues out of a total of 216), followed by the Daily Sun newspaper with 0.35% coverage on agricultural related climate change issues (1 agricultural related climate change issues out of a total of 288) and Vanguard newspaper with 0.28% had the minimal coverage on agricultural related climate change issues (1 agricultural related climate change issues out of a total of 216).

Table 3(d). Headlines on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

NEWSPAPERS	Frequency		
	A	A	Coverage(%)
Daily Sun	720	14	1.94
Punch	504	9	1.79
Vanguard	936	18	1.92
Total	2160	41	1.90

Source: Field Data, 2023

A: Total number of headlines in the Newspapers; **a:** total number of headlines on agricultural related climate change issues found in the newspapers.

Front page headline is a very short summary of a news report. It normally appears in large letters on the front page of every newspaper, capturing the most salient point of any news story. It is coined in such a way to snare people in calling their attention to the top stories first (Ojemola, 2019). From table 3(d), it shows that 2160 headlines were discovered in the three newspapers within the study period. Headlines on agricultural related climate change issues

accounted for 1.90% in the three newspapers within the study period (41 agricultural related climate change issues out of a total of 2160). Daily Sun newspaper with 1.94% had the highest coverage on agricultural related climate change issues (14 agricultural related climate change issues out of a total of 720) followed by Vanguard newspaper with 1.92% on agricultural related climate change issues (18 agricultural related climate change issues out of a total of 936) and the Punch newspaper had the minimum coverage with 1.74% (9 agricultural related climate change issues out of a total of 504).

Table 3(e). Editorials on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

NEWSPAPERS	Frequency		
	A	A	Coverage(%)
Daily Sun	72	1	1.39
Punch	144	2	1.39
Vanguard	72	0	0.00
Total	288	3	1.04

Source: Field Data, 2023

A: Total number of editorial in the Newspapers; **a:** total number of editorial on agricultural related climate change issues found in the newspapers.

Editorials tells the newspaper management opinion about a topical issue. Whatever is written on the editorial page of any

newspaper is called an editorial and tells the reader the stand of the newspaper management as concerning any issue. From table 3(e), out of a total of 288 editorials found in the three newspapers within the study period, only 1.04% coverage on agricultural related climate change issues was

discovered (3 agricultural related climate change issues out of a total of 288). Both the Daily Sun newspaper and Punch newspaper had a coverage of 1.39% (1 agricultural related climate change issues out of a total of 72 and 2 out of a total

of 144 respectively) and Vanguard newspaper had no advert on agricultural related climate change issues (0 agricultural related climate change issues out of a total of 72).

Table 3(f). Opinion articles on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Frequency			
NEWSPAPERS	A	a	Coverage(%)
Daily Sun	288	1	0.35
Punch	288	1	0.35
Vanguard	216	0	0.00
Total	792	2	0.25

Source: Field Data, 2023

A: Total number of opinion articles in the Newspapers; **a:** total number of opinion articles on agricultural related climate change issues found in the newspapers. The table 3(f) indicates that a total of 792 opinion articles were recorded in the three newspapers within the study period. Out of this total, agricultural related climate change issues recorded a coverage of 0.25% within the study period

(2 agricultural related climate change issues out of a total of 792). Daily Sun newspaper and Punch newspaper both had a coverage of 0.35% on agricultural related climate change issues (1 agricultural related climate change issues out of a total of 288) and Vanguard newspaper had no opinion article on agricultural related climate change issues (0 agricultural related climate change issues out of a total of 216).

Table 3(g). Lead stories on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Frequency			
NEWSPAPERS	A	a	Coverage(%)
Daily Sun	72	2	2.78
Punch	72	3	4.17
Vanguard	72	5	6.94
Total	216	10	4.63

Source: Field Data, 2023

A: Total number of lead stories in the Newspapers; **a:** total number of lead stories on agricultural related climate change issues found in the newspapers. The table 3(g) shows that a total of 216 lead stories were recorded in the three newspapers within the study period. Out of this total, agricultural related climate change issues recorded a coverage of 4.63% within the study period (10 agricultural related climate change issues out of a total of 216). Vanguard newspaper Sun had the highest coverage of

6.94% on agricultural related climate change issues (5 agricultural related climate change issues out of a total of 72) followed by Punch newspaper with 4.17% lead stories on agricultural related climate change issues (3 agricultural related climate change issues out of a total of 72) and Daily Sun newspaper had the least coverage of 2.78% on agricultural related climate change issues (2 agricultural related climate change issues out of a total of 72).

Table 3(h). Letter-to-the-editor on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Frequency			
NEWSPAPERS	A	a	Coverage(%)
Daily Sun	72	0	0.00
Punch	72	1	1.39
Vanguard	72	0	0.00
Total	216	1	1.39

Source: Field Data, 2023

A: Total number of letters-to-the-editor in the Newspapers; **a:** total number of letters-to-the-editor on agricultural related climate change issues found in the newspapers. Table 3(h) shows that a total of 216 letter-to-the editors were recorded in the three newspapers within the study period. Out of this total, agricultural related climate change issues recorded a coverage of 1.39% within the study period (1 agricultural related climate change issues out of a total of

216). Punch newspaper had the highest coverage of 1.39% letter-to-the editors on agricultural related climate change issues (1 agricultural related climate change issues out of a total of 72) while Daily Sun newspaper and Vanguard newspaper had no coverage on agricultural related climate change issues (0 agricultural related climate change issues out of a total of 72).

Table 3(i). Cartoons on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Frequency			
NEWSPAPERS	A	a	Coverage(%)
Daily Sun	72	0	0.00

Punch	72	0	0.00
Vanguard	153	0	0.00
Total	297	0	0.00

Source: Field Data, 2023

A: Total cartoons in the Newspapers; **a:** total number of cartoons on agricultural related climate change issues found in the newspapers

Table 3(i), it is clearly indicated that a total of 297 cartoons were published in the three newspapers within the study

period and out of these number, no cartoon depicting agricultural related climate change issues was found (0 agricultural related climate change issues out of a total of 297).

Table 3(j). Pictures on agricultural related climate change issues in the three mentioned newspapers (2020-2022).

Frequency			
NEWSPAPERS	A	A	Coverage(%)
Daily Sun	1800	13	0.72
Punch	2088	12	0.57
Vanguard	1944	19	0.98
Total	5832	44	0.75

Source: Field Data, 2023

A: Total number of pictures in the Newspapers; **a:** total number of pictures on agricultural related climate change issues found in the newspapers

Table 3(j) shows that a total of 5832 pictures were recorded in the three newspapers within the study period. Out of this total, agricultural related climate change issues recorded a coverage of 0.75% within the study period (44 agricultural related climate change issues out of a total of 5832). Vanguard newspaper had the highest coverage of 0.98% of photos on agricultural related climate change issues (19 agricultural related climate change issues out of a total of 1944) followed by Daily Sun newspaper with 0.72% photos on agricultural related climate change issues (13 agricultural related climate change issues out of a total of 1800) and Punch newspaper had the least coverage of 0.57% pictures on agricultural related climate change issues (12 agricultural related climate change issues out of a total of 2088).

Conclusion

Only 282 agriculturally related climate change issues were discovered throughout the study period from 2020 to 2022, suggesting that there was little coverage of these issues at that time. Within the three years (2020-2022) of the study, the vanguard newspaper placed highest among the three, with 160 articles on themes relating to agriculture and climate change, while punch newspaper had the least amount of coverage, with only 85 articles. The feature piece, with 104 stories, is the most common story type used in reporting on agricultural-related climate change issues in a few Nigerian newspapers. Straight news, with 74 stories, comes in second. Opinion articles and editorials are less common. By implication, Nigerian newspapers did not value agricultural news and as a result did not give it the attention it deserved.

Recommendations

For agricultural columnists in Nigerian media, capacity-building workshops on reporting agro-information should be held. To make the topic of climate change relevant to the general public and the agriculture industries in particular, the media should cover farmer-centered climate change tales. Finally, it is suggested here that specialized agricultural newspapers be developed, just like we have sports newspapers treating solely sports concerns, in order to offer

agriculture the most media coverage possible.

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