



Print Media Journalists' Coverage of Agriculture related Climate Change News in Nigeria: Implications for achieving Vision 20:2020

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General Note



Article is recommended to print as color version in recycled paper. *Save Trees, Save Climate.*

ABSTRACT

The study investigated print media journalists' coverage of agriculture related climate change news in Nigeria: Implications for achieving Vision 20:2020. The Vision 20:2020 conceptualizes a transformation in agriculture that would ensure food security, the right to sustainable development and adaptation to the climate change challenge. The study was carried out in Nigeria and the population comprises all the national dailies institutions. Four national daily newspapers were purposively selected for the content analysis and questionnaire schedule was administered to 150 randomly selected journalists'. The study revealed that majority (89.4%) of the journalists' sourced climate change information from internet. Majority (275 of 332) of the climate change articles were not agriculture- related. Major constraints to the coverage of climate change news include: lack of training in journalistic skills (M=3.53, S.D= 0.72); and lack of specialization among journalists (M=3.45; S.D= 0.87). Based on the findings the study

recommended that there should be constant interaction between people with climate change information, the media and farmers affected by climate change to increase awareness.

Key words: Content analysis, degradation, desertification, farmers, information, and newspaper.

1. INTRODUCTION

Agriculture has been identified as a major driver of growth in the Nigerian economy and must play a crucial role in achieving vision 2020 in Nigeria. Vision 2020 is a long-term, national level strategic framework that is indicative in nature. According to the vision, the agriculture sector shall be a technologically driven sector that is profitable, sustainable and meets the socio-economic aspirations of Nigerians (Federal Republic of Nigeria, 2011). Research findings of Deb, S., Lynrah, M.M. & Tiwari, B.K., (2013) on agricultural practices in India show that farmers have started taken some innovative measures like fine systems against destruction of natural forests, fire control measures, equity, conflict management, allocation of plots for shifting cultivation practices to make agricultural practices less degradative. Other indigenous technological innovations introduced by farming communities for making the system more productive includes watersheds, range-and pasture lands which encourages sustainable initiative on a regional scale to arrest degradation caused by shifting cultivation (Meghalaya Agriculture Profile, 2006).

Nwajiuba, (2011) had noted that agriculture is been confronted by the compound challenges of climate change because the sector is dependent on the natural resource base and thus faces risks such as desertification, rising temperatures, changing rainfall patterns leading to degrading agriculture productivity and labour productivity. According to Adekunle, Olagoke, & Akindele, (2013) factors responsible for the compound challenges of climate change effects in Nigeria are illegal activities in the forest, declining manpower and capacity in Forestry Department, inadequate forest patrol, stoppage of the payment of annual royalty (formerly 5 % of total income) from what accrued from logging activities to rural communities, outdated forestry laws and regulations. Therefore, delivering food security to an additional one billion people in Africa will become ever more challenging over the next four decades unless more intelligently management of natural resources and emerging opportunities are brought to bear (Orakpo, 2009).

It is often argued that Africa needs to follow the agro-industrial "Green Revolution" model implemented in many parts of Asia and Latin America in previous decades. Using strains of crops that required agrochemical fertilizer, pesticides and irrigation, these methods increased yields, but they also damaged the environment, caused dramatic loss of agro-biodiversity and associated traditional knowledge, favored wealthier farmers and left some poorer ones deeper in debt. This cannot be sustainable in Africa, a continent that imports 90 per cent of its agrochemicals, which most of the small-scale farmers cannot afford.

There is a dire need to apply science and technology that is environmentally friendly in the field of agriculture to reverse the trends of climate change through mitigation efforts. Adoption of Strict Nature Reserve (SNR) is a crucial method for *in situ* conservation of biodiversity so as to militate against the effects of Climate Change in Nigeria (Adekunle, Olagoke, & Akindele, 2013). Others include Biosphere Reserves, Game Reserves, Regeneration Plots, Permanent Sample Plots, and Sacred Groves which are created to protect representative samples of natural ecosystems for preservation of biodiversity and ecological processes, scientific study, environmental monitoring, education and the maintenance of genetic resources in a dynamic and evolutionary state (Isichei 1995).

The attainment of any desirable climate condition will depend to some extent on the facts, figure and opinions available to the public. It has been noted that the success of agricultural development programmes in developing countries largely depends on the nature and extent of use of mass media in mobilization of people for development (Purushothaman, Kavaskar, Reddy and Kanagasabapathi, 2003). Generally speaking, as far as education of the farmers is concerned, extension organizations are using different ways and means including print media to educate the farming community, focusing on giving them latest knowledge of agriculture, and developing their attitude toward sustainable agriculture. Mass print media such as newspapers have remained a potent and fundamental tool for technology transfer in that newspapers can be stored for future reference; read and re-read at convenience, thus allowing fuller and better understanding of message contents (Moemeka, 1990).

In spite of print media's coverage and storage advantages, there still remain huge amount of uncertainty regarding the attention given to newspaper coverage of agricultural related climate change issues in Africa generally and in Nigeria in particular. Nigerian journalists have often been accused of poor reportage of climate change news. Climate news stories, and specifically agricultural related climate change issues competes (often weakly) with other more immediate issues for public attention, and this leads to their marginality, as media officials are more concerned with local issues like crime and jobs (Boykoff and Roberts, 2007). Although a lot of useful agricultural climate information exists within the science community, it has been rendered of little significance to the ordinary public because much attention has not been given to newspaper coverage of agricultural climate change.

In view of the poor reportage of agriculture- related climate change issues by the journalists, the examination of print media journalists' coverage of climate change news in Southern Nigeria daily newspapers becomes relevant. The question now relates to what then is responsible for this low spate of reportage? What are the information sources of journalists on climate change coverage? Are there individual, institutional or social factors that have negated the potentials of newspapers for reporting climate change? How frequent do they publish agricultural climate change issue? Again, what are the major constraints to the coverage of climate change news? This study is therefore designed to provide answers to the questions posed above.

Objectives of the Study

The purpose of this study is to examine the print media journalists' coverage of agriculture climate change news in Nigeria: Implications for achieving Vision 20:2020. The specific objectives of the study include to:

1. ascertain the number of climate change articles published in the four national daily newspapers;
2. assess the proximity used in the climate change articles;
3. assess the coverage of agricultural related climate change articles in the four newspapers
4. identify the journalists' information sources about climate change;
5. identify journalists' constraints in the coverage of climate change news;

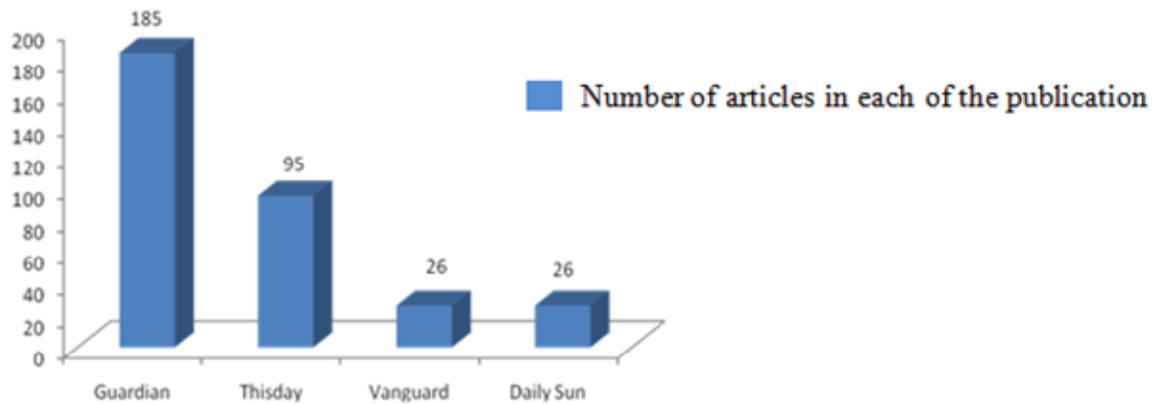


Figure 1
Number of articles in each of the publication

Significance of the study

Climate change reporting is low and of poor quality in all major media across the country. Media owners/editors have little appreciation of climate change, and do not view climate as worth prime space in newspapers (Luganda, 2008). Besides, there has been limited training in climate change communication for development; there are few institutions for specialized training.

Therefore, accurate investigation of print media journalists' coverage of climate change news in southern Nigeria would help to objectively study comprehensively, their experiences and knowledge on climate change reporting as a basis for future media policy formulation and news content design. It is hoped that the findings of this study would give the journalists and the public's the privilege to know more about climate change issues and events. Besides, the major weak points in journalists' coverage of climate change news would be revealed and these could be used as check and balances by the media houses and policy makers in the planning, designing, and execution of news by journalists.

2. METHODOLOGY

The population of the study included all the daily national newspapers in southern Nigeria. Guardian, Vanguard, ThisDay, and Daily Sun newspapers were purposively selected for content analysis because they are considered to be among the country's leading national newspapers. The coverage time was from January 1, 2009, to December 31, 2009. The coverage time was from January 1, 2009, to December 31, 2009, yielding approximately 332 articles for the analysis. Questionnaire schedule was afterward compiled and administered; a purposive sampling technique was used in selecting ten (10) national dailies based on their wide readership and daily circulation potentials relative to other newspapers. To draw a representative sample, a simple random sampling method was

used in selecting 15 journalists that specialized in science, environmental and social science journalism giving a total sample size of 150.

To ascertain the number of climate change articles in the four national daily newspapers, a content analysis was conducted, using a code sheet that comprises name of the publication and headlines. This was achieved by noting the frequencies of articles appearing under a particular newspaper.

To assess the proximity used in reporting the climate articles, it was determined for each study whether any Africa, West Africa, Nigeria or No African perspective was used in reporting the climate change articles. Africa context was determined as reference made to the Africa continent as a whole, or particular African regions, countries or people. West Africa context refers to mention made of West Africa, West African people, or specific West African places or institutions excluding Nigeria. Nigeria context refers to mention made of the Nigeria as a country, Nigeria flora or fauna, institutions or local people. If none of these contexts were found, the articles were classified as having "No Africa Context". To measure the coverage of agriculture- related climate change issues by print media journalists, a content analysis was conducted using the individual articles as unit of analysis. This was achieved by noting the frequencies of agriculture- related climate change articles published in the four national dailies.

To identify the journalists' information sources about climate change, respondents were asked to indicate "Yes (1) or No (0)" on the basis of whether they use the information sources or not. Moreover, a 3 point Likert-type scale of very often (3), often (2), not often (1), was used to measure on the basis of how often they used the listed sources to gather information on climate change. The values on the Likert-type scale were added and the product was divided by 3 to get a mean score of 2.0; hence variables with mean scores of 2.0 or above were regarded as frequently used sources.

In order to identify the journalists' constraints in the coverage of climate change news, a 4 point Likert-type scale with responses of, very great constraint (4), great constraint (3), little constraint (2), and Not a constraint at all (1) was used. The value on the Likert-type scale was added to get 10, with a mean score of 2.5, such that any response higher or equal to 2.5 was regarded as a "possible constraint". Frequency, percentage, mean score and mean deviation were used for data analysis.

3. RESULTS

Number of articles in all the publication: The result in Figure 1 looks at the articles published between January 1st, 2009 and December 31st 2009, as broken down by the publications they appeared in, the following pattern emerged. The majority (185) of the Climate Change articles were published in the Guardian. Thisday published the second largest (95) amount of Climate Change related articles, followed by Vanguard (26 of 332 articles) and the Daily Sun (26 of 332articles). This shows that climate change reporters from Guardian newspapers indicate more interest in reporting Climate Change news.

Proximity of articles: The result in Figure 2 shows that majority (150) of all the articles had no african context. About 132 of the articles had Nigeria context. Some of this context used in the publication included references to Nigeria as a country e.g "Nigeria not immune to climate change effects", "Uduaghan: Nigeria is ignorant of climate change", or "Federal government moves to adopt climate change action plan". Also, 43 and 6 of the articles had African and West African contexts, respectively. The less-availability of articles on Climate Change in Nigeria may probably be because Nigerians consider political issues to be more important than the issues of Climate Change.

Number of agriculture- related climate change articles in all the four newspapers: The data in Figure 3 show that majority (275) of the climate change articles were not agriculture- related, while only 57 of the articles were agriculturally oriented. The mean of all the articles published was 166 articles. This result implies that there was fewer publications of agriculture- related climate change news in the study. This is in agreement with Rod, Richard and Ambika (2006) that the dramatic impacts of extreme weather events on agriculture, for example, rarely feature in relation to climate change and the topic remains low on editors' story sheets.

Journalists' use of information sources: The result in Table 1 shows the journalists' frequency in the use of a wide range of sources to gather information on climate change news. The result shows that the following sources appeared to be more frequently used than others: internets (89.4%), Television (86.5%), scientific journals (80.8%), Radio (75.0%) and Nigeria ministry of environment (50.0%). This points to the fact that most of the journalists relied heavily on the internet in their quest to meet their communication needs. Other major sources indicated by the respondents include: academics (76.9%), international agencies (72.1%), developing countries government (62.0%), special interest group (61.5%), private organization (60.6%), public (59.6%), developed countries government (58.7%), political leader (55.8%) and Nigeria ministry of environment (50.0%).

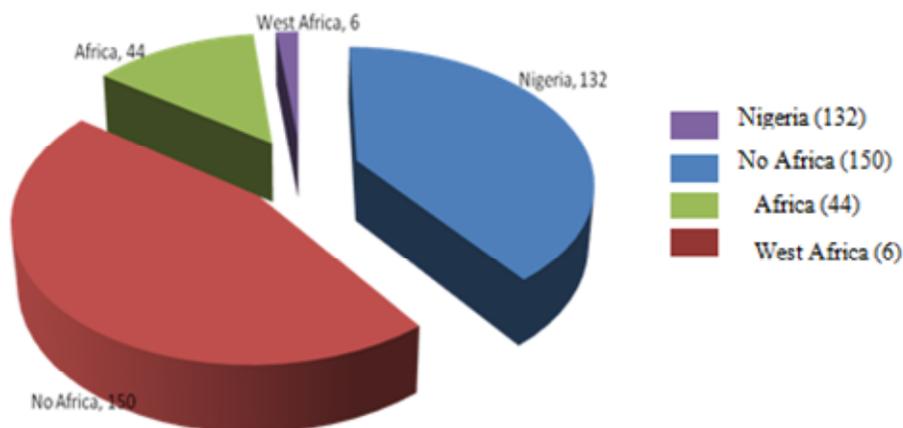


Figure 2
Proximity of articles in all the newspapers analysed

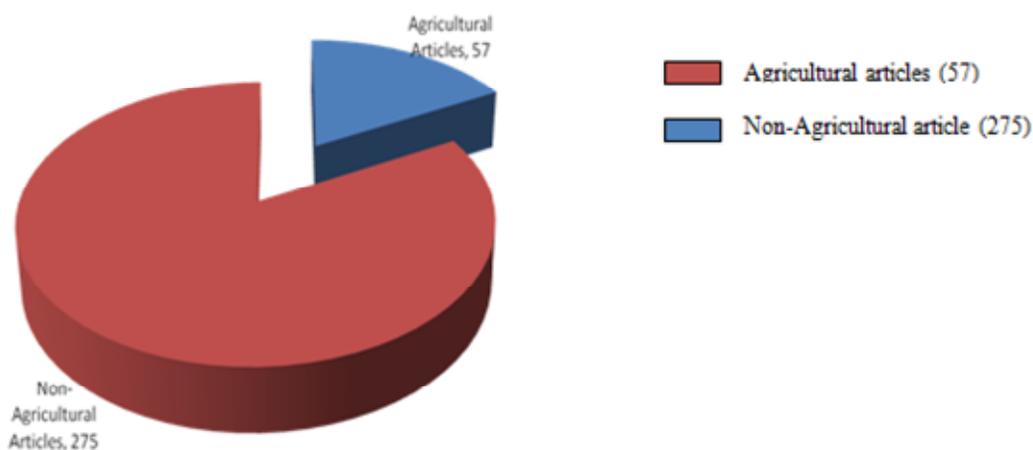


Figure 3
Number of agriculture- related climate change articles in all the publications

Perceived frequency in the use of information sources: Data in Table 2 indicate that the journalists perceived some information sources to be more frequently used than others with regards to their needs concerning climate change news. Sources perceived as being more frequently used include Internet (M=2.57; S.D= 0.59), Ministry of Environment (M=2.54; 0.76), Newspapers (M=2.38; 0.63), Television (M= 2.34; 0.66), and Political Leaders (M=2.14; 0.84). The Table also shows that the standard deviations were all less than 1.0 showing that the journalists' individual scores as regards their opinion on the use of information sources did not differ much from the mean score.

Perceptions of Journalists on Possible Constraints to the Coverage of Agricultural Related Climate Change News: The result of the responses of the journalists as regards possible constraints to the coverage of agricultural related climate change news is shown in Table 3. The Table revealed that the journalists perceived a number of variables to be the possible constraints to effective coverage of agricultural related climate change news. These variables include inadequate financial commitment, as only few news organizations can afford to devote resources to support a reporter specialized in this complex but vital topic (M=3.64; S.D= 0.59); lack of training in journalistic skills such, as inquiring mind required for good reporting (M=3.53, S.D= 0.72); lack of specialization among journalists (M=3.45; S.D= 0.87); a lack of willingness to promote investigative reporting as it is time consuming and expensive (M=3.44, S.D= 0.79); poor levels of payment for journalists (M=3.30; S.D= 0.72); national media is often controlled by businesses with other priorities and little interest in the climate change (M=3.27; S.D= 0.97); journalists lacked access to reliable/timely, accurate and clear information and books on climate change (M=3.23; S.D= 1.00); competition for space and position within the newspaper (M=3.17; S.D= 1.07); a breach on the journalists' freedom of expression (M=3.02; 1.03); lack of expertise in agricultural related climate science issues (M=3.21; 0.99); and lack of climate change information available in local languages (M=2.79; 1.01). Other constraints include low policy priority on climate change (M=2.74; 1.13), scientists fail to simplify the language of climate change to enable everyone to understand their findings (M=2.86; 1.11), and lack of transportation facilities for journalists to visit areas of incidents and also poor road networks (M=2.60; 0.99).

Table 1

Percentage distribution of respondents' use of information sources

Sources	Yes (%)	No (%)
Internet	89.4*	10.6
Television	86.5*	13.5
Newspapers	83.7*	16.3
Scientific journals	80.8*	19.2
Radio	75.0*	25.3
Academics	76.9*	23.1
International agencies	72.1*	27.9
Developing countries government	62.0*	38.3
Special interest group	61.5*	38.5
Private organization	60.6*	39.4
Public (including opinion survey)	59.6*	40.4
Developed countries government	58.7*	41.3
Political leaders	55.8*	44.2
Ministry of environment	50.0*	50.0
Ministry of science and technology	48.1	51.9
Face book	40.0	60.0
Letters to the editors	38.7	61.3
Ministry of agriculture	37.3	62.7
Blogs	27.9	72.1
Twitter	25.0	75.0
IPCC	21.1	77.9
Farm magazine	16.3	83.7

*Most useful information sources

Table 2

Perceived frequency in the use of information source by the respondents

Sources:	Mean	S.D
Internet	2.57*	0.59
Nigeria Ministry of environment	2.54*	0.76
Public (including opinion survey)	2.46*	0.75

Scientific journal	2.39*	0.65
Newspapers	2.38*	0.63
Television	2.34*	0.66
Academics	2.33*	0.67
International agencies	2.29*	0.68
Developing countries government	2.22*	0.91
Radio	2.15*	0.74
Political leaders	2.14*	0.84
Special interest group	2.10*	0.70
Ministry of science & technology	2.09*	0.77
Developed country government	2.08*	0.91
Private organization	1.86	0.65
Farm magazines	1.82	0.72
Ministry of agriculture	1.76	0.80
IPCC publication	1.62	0.69
Letters to the editors	1.58	0.65
Blogs	1.58	0.70
Face book	1.58	0.67
Twitter	1.46	0.64

*frequently used information sources

Table 3

Mean and standard deviation of the responses of journalists on possible constraints to coverage of agricultural climate change

Possible constraints	Mean	SD
Lack of in-depth knowledge or understanding of climate change issues by journalists and editors	1.88	0.93
Lack of training in journalistic skills such as inquiring mind required for good reporting	3.53*	0.72
Inability to access the internet.	1.92	0.91
Lack of expertise in agricultural related climate science issues	3.21*	0.99
National media is often controlled by businesses with other priorities and little interest in the climate change	3.27*	0.97
A lack of willingness to promote investigative reporting as it is time consuming and expensive.	3.44*	0.79
Scientists fail to simplify the language of climate change to enable everyone to understand their findings.	2.86*	1.11
Inability to control what is to be reported.	1.97	1.11
Competition for space and position within a newspaper.	3.17*	1.07
Specific interests of media owners & managers.	1.97	0.88
Poor levels of payment for journalists.	3.30*	0.72
Rebels on the journalists' freedom of expression i.e. the electronic and print media are partly government run and fall under some form of control.	3.02*	1.03
Inadequate and poor maintenance of technical equipment such as digital cameras, computers, recording equipment, etc.	2.14	0.79

Note: * major constraints

Contd...

Table 3

Continued...

Possible constraints	Mean	SD
Lack of technical knowledge on how to operate/ use digital ICT tools.	2.09	1.08
Lack of transportation facilities for journalists to visit areas of incidents and also poor road networks.	2.60*	0.99
Inadequate financial commitment, as only few news organizations can afford to devote resources to support a reporter specialized in this complex but vital topic.	3.64*	0.59
Lack of climate change information available in local languages.	2.79*	1.01
Experienced climate change journalists often move on to become communication officers for international agencies or NGOs etc.	1.86	1.06
Lack of specialization among journalists.	3.45*	0.87
Information is often held by climate skeptics making it so difficult to access climate change issues.	2.16	1.06
Low policy priority on climate change	2.74*	1.12
Journalists lacked access to reliable/timely, accurate and clear information and books on climate change.	3.23*	1.00
The complexity of climate science technical information - in both concept and jargon - is a significant barrier for journalists.	2.29	1.20
Time pressures from the editors and publisher can affect climate change news reporting	1.84	0.95

Note: * major constraints

4. DISCUSSIONS

The findings on the proximity of articles revealed that the greater proportion of “no African context” articles probably suggests that, the articles approached climate change as an international issue that needed specifically international attention. This is in agreement with Rod, Richard, and Ambika (2006) findings that where there is some climate change reports, the contents are for, and about the developed and the ruling countries.

The result on the number of agriculture- related climate change articles in all the four newspapers implies that there was fewer publications of agriculture- related climate change news in the study. This is in agreement with Rod, Richard and Ambika (2006) that the dramatic impacts of extreme weather events on agriculture, for example, rarely feature in relation to climate change and the topic remains low on editors’ story sheets.

The findings on the journalists’ use of information sources points to the fact that most of the journalists relied heavily on the internet in their quest to meet their communication needs probably because the internet is fast and has made the whole world a global village.

On the perceived frequency in the use of information sources, the findings suggest that the respondents gathered information from these sources probably to obtain authentic information, which is a fundamental ethics in journalism.

On the perceptions of journalists on possible constraints to the coverage of agricultural related climate change news, the result is in agreement with Porter and Sims (2003) findings which reported that “most small and medium sized publications in developed countries and the majority of publications in developing countries lack specialized reporters, and the general lack of understanding of broader issues creates a tendency towards relying too much on press releases and producing brief – sometimes inaccurate - stories on climate change issues”. Moreover, beyond these commonly shared problems, Friedman and Friedman (1989) discovered that journalists, particularly in developing countries, also struggle with government censorship, high-level private interference (advertising and/or ownership), lack of space, editorial bias, lack of training in journalism, lack of expertise in economic, social and environmental issues, and the difficulty in locating reliable sources.

5. CONCLUSION AND RECOMMENDATION

The study investigated the print media journalists’ coverage of agriculture climate change news in Nigeria: Implications for achieving Vision 20:2020. Based on the findings, it was concluded that majority (275 articles) of the climate change issues were not agriculture-related, indicating that there is difficulty in getting an agriculture issue on the media agenda. Greater proportion of the respondents preferred internet as an information source, probably because of its efficiency, and reliability. However, other major sources of information on climate change were internet, ministry of environment, newspapers, and television. The major constraints to the coverage of agriculture- related climate change news included inadequate financial commitment, as only few news organizations can afford to devote resources to support a reporter specialized in this complex but vital topic, lack of training in journalistic skills

such, as inquiry mind required for good reporting; lack of specialization among journalists; a lack of willingness to promote investigative reporting as it is time consuming and expensive; and poor levels of payment for journalists. Based on the major findings, the study therefore recommends that there should be constant interaction between people with climate change information, the media and farmers affected by climate change to increase awareness of the issues. Media organizations should implicitly create positions for agriculture communicators who will foster the aims and objectives of the agricultural climate change issues as they are likely to be ignored by the mainstream Nigerian press. More so, the fact that the agricultural sector is highly impacted by the changing climate should be at the fore in conceptualizing and further developing vision 20:2020 for Nigeria.

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