

**PROPER DISSEMINATION OF INFORMATION ON CLIMATE CHANGE: A
COMPARATIVE STUDY OF THE ROLES OF OFFICIAL AND INDIGENOUS
LANGUAGES IN NIGERIA**

Evelyn E. Mbah and Monday Ayegba

Department of Linguistics, Igbo and other Nigerian Languages, University of Nigeria, Nsukka

Abstract: *This study compares the roles of official and indigenous languages in Nigeria for proper dissemination of information on climate change. Questionnaire was used for data collection. A total of 130 questionnaires were distributed to civil servants in Ibaji Local Government Council of Kogi State, Nigeria to seek their opinions on the proper information flow on climate change in the country through official or indigenous languages. Out of 130 questionnaires distributed, 125 of them were completed and returned. A quantitative analysis was adopted to compare the roles of official and indigenous languages in Nigeria for proper dissemination of information on climate change based on the returned questionnaires from our respondents. The result show that although both official and indigenous languages in Nigeria play significant roles in proper dissemination of information on climate change, people prefer information disseminated to them in their native language(s) to the one giving to them in the official language (English). It is also discovered that most people at the grassroots, especially the illiterates, are yet to be properly informed about the implications and management of climate change and this is due to lack of proper awareness through their indigenous language(s). Dissemination of information on human and environmental challenges such as climate change should, therefore, be done in the indigenous language(s) of the people.*

Keywords: Climate change, Nigeria, Language, Information

INTRODUCTION

Human activities, over centuries, had released and still releasing a large volume of carbon dioxide and other greenhouse gases such as burning fossil fuels into the atmosphere. Greenhouse gases coming out from burning fossil fuels to produce energy have caused more harm than good to human environment although deforestation, industrial processes and some agricultural activities also release gases into the atmosphere (NRC, 2010; USGCRP, 2009).



Greenhouse gases coming out from fossil fuels into the atmosphere

Apart from human activities, however, changes in the sun's intensity have influenced Earth's climate in the past. This means that changes in Earth's orbit had affected climate thousands of years ago. Earth has experienced long periods of cold temperatures (ice ages) as well as shorter interglacial periods (periods between ice ages) of relatively warmer temperatures (USGCRP, 2009; UNEP/WMO, 2011)



The effect of sun's energy on the Earth in the past

Any significant change in the measures of climate lasting for an extended period of time is, therefore, known as climate change (NRC, 2002).

The most pressing environmental question the World is facing today is climate change or global warming. Changes in climate have significant implications on present lives, on future generations and on ecosystem which we rely on for a living. In the SubSaharan Africa, for instance, Tarhule (2005) observes that climate change has over the years contributed to the economic declines of countries in this region. In far back 1984, the World Bank produced an index comparing trends in per capita food production from 1961-1983 for SubSaharan Africa, Latin America and Asia, and the result showed that there was a persistent negative trend for SubSaharan Africa in sharp contrast to upward trends in the other regions (Tarhule, 2005). The impacts of climate variability on the World economy, especially SubSaharan African counties were discussed in Berg (1975), Benson (1994), Benson & Clay (1998), Jury (2002) and World Bank (1991).

The enormity of the challenges ahead (climate variability) should be appreciated by everybody: old or young, man or woman, literate or illiterate. Furthermore, the cornerstone in the enthusiasm and/or ability to respond to the challenges posed by climate change is you and the people inform (McGlade, 2009). This means that information dissemination on our environmental challenges such as climate change is a responsibility of everybody.

Information dissemination is a process of passing a piece or pieces of information from one person to another person or from one group of people to another group of people. Tarhule (2005) says that information flow is a two-way process. To him, many existing arrangements for climate information dissemination appear to be linear and unidirectional. While much effort is directed to getting information to stakeholders and users groups, far less priority is attached to receiving feedbacks that might improve upon both the quality of the information as well as the dissemination process.

Lack of proper information dissemination, therefore, is the major problem limiting against proper management of human environment. A good number of people are yet to be aware of causes and effects of climate change because of lack of proper information dissemination. For more discussion on proper information flow on climate change, see Tarhule & Lamb (2003), Garbrecht et al. (2005), Roncoli et al. (2002), Kirshen & Flitcroft (2000) and Ingram et al. (2002).

The roles of official (English) and indigenous languages in proper dissemination of information on climate change in Nigeria is, therefore, the focus of this study. The English language has been and still playing official roles in Nigeria; it is widely used in Nigeria by Nigerians in almost all spheres of the country's scheme of things irrespective of over four hundred and fifty (450) native languages in Nigeria (Bamgbose, 1971 & 1991). Ikima (2012) notes that fear of domination has been and still the major reason why Nigeria has not chosen an indigenous language as her official language up till now, and this continues to give English an official status in Nigeria. The general question remains whether information is best disseminated and understood by the people in a language alien to them or in the language which they call theirs.

Purpose of the Study

The purpose of this study is to compare the roles of official and indigenous languages in Nigeria for proper dissemination of information on climate change. Specifically, the study will:

- (i) show if causes of climate change can be best communicated to the people through English or indigenous languages in Nigeria
- (ii) show if English is the best means of informing Nigerians about the implications of climate change or their indigenous languages
- (iii) compare the importance of English and indigenous languages in Nigeria for proper dissemination of information on climate change.

Research Questions

To achieve the set objectives of this study, the following research questions are imperative:

- (i) To what extent can we say that English has an edge over indigenous languages in proper information dissemination on the causes of climate change in Nigeria?
- (ii) What roles can English play in proper dissemination of information on implications of climate change that indigenous languages cannot play in Nigeria?
- (iii) To what extent can it be proved that English is best used to inform the people about how climate change can be managed than indigenous languages in Nigeria?

METHODOLOGY

A total of 130 civil servants were selected as subjects for this study (65 males and 65 females). This was to give equal opportunity to both genders. The respondents were all workers of Ibaji Local Government Council of Kogi State, Nigeria. And the choice of this particular Council was born out of the fact that most civil servants in this area also do one type of farming or the other to augment their monthly salaries. Furthermore, they can speak both English and their mother tongue (s), and this makes them stand a better chance of airing their views on the roles of official and indigenous languages in Nigeria for proper dissemination of information on climate change. The study used questionnaire as an instrument for data collection. A total of 130 questionnaires were distributed to our respondents within two (2) weeks and a total of 125 completed questionnaires were returned after two (2) months. The data gathered from our respondents were presented in three (3) comparative tables and analysed quantitatively.

Results

The results of the data gathered from our respondents through the questionnaires distributed to them are presented and analysed quantitatively in the tables below:

Table 1: Comparing the roles of official and indigenous languages in Nigeria for proper dissemination of information on the causes of climate change: Analysis of results from section B of the questionnaire.

(A: Agree, SA: Strongly Agree, DA: Disagree, SD: Strongly Disagree).

	(N-125)			
	A	SA	DA	SD
i. Information can be properly disseminated on the causes of climate change through both English and indigenous languages in Nigeria.	20 16%	15 12%	65 52%	25 20%
ii. Some terminologies on climate change can be best understood by me when explained in my mother tongue than in English.	75 60%	30 24%	15 12%	5 4%
iii. I prefer English to my mother tongue when it comes to issues of environmental challenges such as climate change.	35 28%	10 8%	42 33.6%	38 30.4%
iv. It may be difficult for those who are not literate to understand causes of climate change when climate change information is disseminated to them in English.	45 36%	70 56%	9 7.2%	1 0.8%
v. Through English, I learnt that burning fossil fuels into the atmosphere, deforestation, industrial processes and other human activities can cause climate variability.	55 44%	40 32%	22 17.6%	8 6.4%
vi. Nobody has ever explained to me in my mother tongue the causes of climate change.	40 32%	75 60%	10 8%	0 0.0%
vii. People at the grassroots need proper information dissemination on environmental challenges through	49 39.2%	51 40.8%	15 12%	10 8%

their indigenous language(s) and not through an official language such as English.				
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Table 2: A comparative analysis of the results from section C of the questionnaire on the language that can best be used in Nigeria for proper dissemination of information on the implications of climate change (OL: Official Language, IL: Indigenous Language, BT: Both of Them)

(N-125)

	OL	IL	BT
i. Climate change can lead to shortage of rainfall, and this affects agricultural activities in Nigeria.	15 12%	70 56%	40 32%
ii. Livestock are also affected by climate change because the weather becomes uncondusive for them.	27 21.6%	65 52%	33 26.4%
iii. Climate change can result to essence of rainfall which can further lead to flood disaster, and when there is flood disaster, lives and properties are at stake.	30 24%	55 44%	40 32%
vi. Soil encroachment occurs as a result of climate variability and this poses threat to human environment.	35 28%	50 40%	40 32%
v. changes in atmospheric condition influence water resources negatively and this make Man vulnerable to water infections.	34 27.2%	51 40.8%	40 32%
vi. Coastal zones and marine ecosystems especially along the Niger Delta can be affected by climate variability.	15 12%	65 52%	45 36%
vii. Nigerian economy is also vulnerable to climate change.	25 20%	70 56%	30 24%

Table3: A comparative analysis of the results from section D of the questionnaire on the language that can best be used for proper dissemination of information on climate management in Nigeria.

(N-125)

	OL	IL	BT
i. Proper management of climate variability is possible mainly through proper awareness	30 24%	60 48%	35 28%
ii. Planting of trees in our environment reduces the scourge of the sun's intensity on Earth (soil).	31 24.8%	59 47.2%	35 28%
iii. Constructions of water channels such as dams reduce flood disaster.	28 22.4%	60 48%	37 29.6%
iv. Fossil fuels burning into the atmosphere as a result of industrial activities can be controlled through proper channeling of the burning fossil.	32 25.6%	57 45.6%	36 28.8%

v. With irrigation, the effects of drought on agricultural activities can be minimized.	31 24.8%	58 46.4%	36 28.8%
vi. The vulnerability of Man to water infections as a result of the influence of climate change on our water resources can be properly managed through regular and adequate vaccination.	30 24%	61 48.8%	34 27.2%

DISCUSSION

The demographic backgrounds of the respondents showed that 63 representing 50.4% of the total number of the respondents (125) were males while 62 representing 49.6% of them were females. 36% of the respondents aged between 25-35 years, 56% of them aged between 35-45 years and 8% of the respondents aged above 45 years. The marital status of the respondents showed that out of 125 respondents, 56% of them were married while 44% of them were single.

All the respondents were civil servants (i.e. 100%) but 68% of them indicated that farming was their hobby. It was indicated by 95% of the respondents that they have only heard of climate change through the English language. 85% of the respondents are Igala and this is not surprising because the area of study covers one part (Ibaji Local Government Council) of Igala speaking communities of Kogi State.

The roles of official and indigenous languages in Nigeria proper dissemination of information on the causes of climate change were compared in table 1. The result showed that indigenous languages are best used to disseminate proper information on the causes of climate change to the people. 60% of the respondents, for instance, agreed that some terminologies on climate change can be best understood by them when explained to them in their indigenous language. Also, 39.2% of the respondents agreed and 40.8% of them strongly agreed that people at the grassroots can properly informed through their indigenous language the causes of climate variability, while only 12% of disagreed and 8% strongly disagreed to that claim.

In table 2, the roles of official and indigenous languages in Nigeria for proper dissemination of information on the implications of climate change were compared. The result showed that even though English plays significant roles on climate change information dissemination in Nigeria, people still prefer information disseminated to them in their indigenous language(s). 56% of the respondents, for instance, indicated that the effects of climate change on agricultural activities in Nigeria can best be communicated to the people in their indigenous language, while only 32% of them said that both official and indigenous languages in Nigeria can perform equal roles on this ground.

Climate change can be properly managed if the people are properly educated through the language(s) native to them. The result of the respondents' opinions on climate change management presented in table 3 showed that indigenous languages can best be used to inform the people on how to take care of environmental challenges. 60 representing 48% of the total number (125) of the respondents, for instance, indicated that proper management of the effects of climate variability can best be communicated to the people in their indigenous languages, but 24% of them said English is best used. However, 28% of the respondents indicated that both

official and indigenous languages in Nigeria can perform equal roles on climate change management.

On the whole, climate change scourge is seriously posing enormity to humanity and a lot of people are yet to be informed on this pressing environmental challenge. MaGlade (2009) says that the challenges posed by climate variability to Man and his environment can be minimized by you and the people you inform. In Nigeria, for instance, many people, especially those who are uneducated and reside in rural areas, are yet to be properly informed about climate change and its implication on humanity. Proper dissemination of information through indigenous languages in Nigeria on climate change, therefore, is a pressing issue.

CONCLUSION

This study has compared the roles of official and indigenous languages in Nigeria for proper dissemination of information on climate change. Questionnaire was used to elicit information from 130 subjects although a total of 125 respondents returned their completed questionnaire. A quantitative analysis of the information got from our respondents showed that information on the causes, implications and management of climate change in Nigeria can properly be disseminated to the people through their indigenous languages although the country's official language (English) has its own significant roles to play, on the other hand. Dissemination of information on climate change in Nigeria, especially to those who are illiterate, should be done in indigenous languages rather than official language so that they will be properly aware of the vulnerability of Man to this environmental scourge and know how to manage it.

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Appendix

Questionnaire

Section A: Demographic Data

Tick (✓) appropriately

- (a) Sex: Male Female
- (b) Age: 25-35 35-45 Others
- (c) Marital Status: Married Single
- (d) Occupation: Civil Servant Farming Others
- (e) Hobby: Reading Farming Others
- (f) Education: Primary Secondary Tertiary
- (g) Have you ever heard of climate change? Yes No
- (h) If yes, through what means? TV Radio Others
- (i) In what language? English Mother Tongue Others
- (j) What is your mother tongue? Igala Others

Section B: The roles of official and indigenous languages in Nigeria for proper dissemination of information on the causes of climate change. (Tick appropriately \surd A:

Agree, SA: Strongly Agree, DA: Disagree, SD: Strongly Disagree)

	A	SA	DA	SD
i. Information can be properly disseminated on the causes of climate change through both English and indigenous languages in Nigeria.				
ii. Some terminologies on climate change can be best understood by me when explained in my mother tongue than in English.				
iii. I prefer English to my mother tongue when it comes to issues of environmental challenges such as climate change.				
iv. It may be difficult for those who are not literate to understand causes of climate change when climate change information is disseminated to them in English.				
v. Through English, I learnt that burning fossil fuels into the atmosphere, deforestation, industrial processes and other human activities can cause climate variability.				
vi. Nobody has ever explained to me in my mother tongue the causes of climate change.				
vii. People at the grassroots need proper information dissemination on environmental challenges through their indigenous language(s) and not through an official language such as English.				

Section C: The roles of official and indigenous languages in Nigeria for proper dissemination of information on the implications of climate change. (Tick \surd appropriately the language that can best be used to disseminate information properly to the people on the effects of climate change as enumerated in the table below; OL: Official Language, IL: Indigenous Language, BT: Both of Them).

	OL	IL	BT
i. Climate change can lead to shortage of rainfall, and this affects agricultural activities in Nigeria.			
ii. Livestock are also affected by climate change because the weather becomes uncondusive for them.			
iii. Climate change can result to essence of rainfall which can further lead to flood disaster, and when there is flood disaster, lives and properties are at stake.			
vi. Soil encroachment occurs as a result of climate variability and this poses threat to human environment.			

v. changes in atmospheric condition influence water resources negatively and this make Man vulnerable to water infections.			
vi. Coastal zones and marine ecosystems especially along the Niger Delta can be affected by climate variability.			
vii. Nigerian economy is also vulnerable to climate change.			

Section D: The roles of official and indigenous languages for proper information flow on proper management of climate change in Nigeria. (Which language do you think can best be used to inform the people on proper management of climate change in Nigeria? Tick \surd appropriately OL, IL or BT)

	OL	IL	BT
i. Proper management of climate variability is possible mainly through proper awareness			
ii. Planting of trees in our environment reduces the scourge of the sun's intensity on Earth (soil).			
iii. Constructions of water channels such as dams reduce flood disaster.			
iv. Fossil fuels burning into the atmosphere as a result of industrial activities can be controlled through proper channeling of the burning fossil.			
v. With irrigation, the effects of drought on agricultural activities can be minimized.			
vi. The vulnerability of Man to water infections as a result of the influence of climate change on our water resources can be properly managed through regular and adequate vaccination.			

Email addresses: ezymba@yahoo.co.uk; ayegbamonday@yahoo.com