TOWN-CRYING FOR KNOWLEDGE DISSEMINATION ON CLIMATE CHANGE TO NON-LITERATE RURAL PEOPLE IN NIGERIA

LASISI RAIMI, AND NWOKE NWOKE BIEH

Abstract

This paper interrogated the level of climate change education among rural dwellers in Nigeria. To achieve this objective, the paper relied on extensive document review/content analysis for its information as well as the symbolic interactionist perspective as its theoretical framework. A purely qualitative approach was adopted to analyze information gathered from secondary sources. Based on the information gathered and the results arrived at, the paper submits that a significant number of the rural population in Nigeria have very little or no knowledge of climate change and its associated effects. Subsequently, the paper recommends the use of using town-criers and town-hall engagement sessions to communicate the causes, trends and progress on climate change issues to rural people will extend the frontiers of knowledge in this regard and ensure that more people in the rural areas, especially non-literate ones, become increasingly aware of climate change and the threats it poses to them.

Keywords: Town-crier, town-hall session, climate change, knowledge dissemination, rural people.

Introduction

Even though there are still ongoing debates on the issue, it is now a widely accepted truth that the world is faced with a serious challenge known as climate change. Since the emergence of a globalized knowledge on the fact that planet earth's climate is increasingly changing for the worse, the issue has become a major source of academic and policy gravity with an irresistible attraction for scholars from different disciplines. This magnitude of concern notwithstanding, most of what has transpired in the policy and academic circles regarding climate change have been more of high-level discussions and actions targeting mostly literate population around the world. While this is understandable given the fact that the very nature of the problem requires high-level deliberations, technical investments and innovative dissemination of knowledge, it is, however, important to note that a significant number of people especially in developing societies live in rural areas and are less educated to cope with the current ways that climate change knowledge is being disseminated. This is a bit disturbing especially when we consider the position that people in local ecologies (Dube & Phiri, 2013) are disproportionately placed in terms of adapting to the increasingly prominent adverse impacts of climate change.

Making sure that more non-literate people in rural areas of Nigeria, Africa and other parts of the developing world have access to current knowledge on climate change and its associated effects is very key in promoting their capacity for adaptation to such alterations. The Climate Change Council of Australia (2016) agrees with this viewpoint by pointing out that good climate change adaptation in any rural area is a function of the level of knowledge that a significant number of the population have concerning the problem especially the less educated population who tend to be more at risk of the negative effects of climate change. However, it further stressed that current approaches to expanding climate change awareness have been rather too sophisticated with too much reliance on high-tech mediums of information dissemination.

The literature on climate change knowledge in rural areas have concentrated more on understanding how climate change affects rural livelihoods as well as the traditional adaptation that is being used by indigenous people to cope with the excesses of such changes (see for instance, Dube & Phiri, 2013; Ajani, Mgbenka, & Okeke, 2013; Raimi, Jack & Boroh, 2017). While this is a step in the right direction, very little has been done in terms of understanding the potency of using rudimentary techniques to disseminate knowledge of climate change to non-literate rural people in Nigeria and other parts of the developing world. Interestingly, the study by Obinna, Thomas, Jenkins, Phillips and Komali (2017) seem to have come close to addressing the issue of knowledge dissemination on climate change to rural people in Nigeria. However, a closer look at the educational background of the sample in their study revealed that they were literate even though largely rural based. Another challenge is that the study focused on discussing the same high-level methods of information dissemination on climate change that has long placed the non-literate population in rural areas in a disadvantaged position with regard to knowledge of climate change. As a result of this, very little has been done to trickle down climate change knowledge to non-literate people especially in rural areas of developing nations like Nigeria.

Based on the foregoing, it is clear that a gap exists in the literature on knowledge dissemination concerning climate change in rural areas when it comes to the non-literate population. Hence, this paper examined how the use of some seemingly rudimentary techniques of communication such as town-criers and town-hall engagement sessions in rural areas can go a long way to increase climate change knowledge dissemination to a large section of the rural people especially the non-literate population in Nigeria.

Aim and Objectives

The aim of this paper is to examine how the use of town-criers and town-hall sessions can enable and facilitate the spread of climate change knowledge to the non-literate people in rural villages in Nigeria and other parts of the world. Other specific objectives of this paper are to:

- i. Highlight the problem associated with the current high-level climate change knowledge dissemination approach.
- ii. Examine how town-crying and town-hall sessions can help climate change knowledge dissemination to the non-literate population in Nigeria.

Conceptual Framework

Before providing the conceptual framework, it is important that the key concepts in this paper are operationalized for the purpose of clarity. There are four key concepts or variables that all together constitute the central thesis of this paper. These are Town-crying, knowledge dissemination, climate change, as well as non-literate population and they, are operationalized below.

Town-crying: The word town-crying is derived from the traditional medium of passing information in Nigeria especially during the pre-literate and pre-colonial days through the use of wooden and metal gongs by an individual referred to as a town-crier. For the purpose of this paper, town-crying simply refers to the process of moving around communities by an individual or a group of individuals to engage rural people on climate change issues using their indigenous languages or any language (including Pidgin English) that they understand.

Knowledge dissemination: This refers to the process of spreading knowledge through any medium from one source or point to another. As used here, it is the process of passing information to a set of persons for the purpose of increasing their knowledge of a particular thing, event or subject matter (Fakunle, 2015) in this case climate change knowledge.

Climate change: The definition of the Intergovernmental Panel on Climate Change (IPCC, 2007) serves our purpose in this paper. It views climate change as a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.

Non-literate population: The word non-literate is fast replacing the use of illiterate to describe people with no formal education. In this paper, the non-literate population simply refers to a group of people who are unable to understand the use of the English language either in terms of writing or reading. In other words, people who can only understand their local languages and Pidgin English can be classified under non-literate population within the context of this paper.

Having operationalized the main concepts in this paper, the next step is to provide a conceptual framework that explains the interaction between them. This is done in Figure 1.1 below using a relationship diagram that shows how climate change knowledge dissemination through town-crying feeds into the town-hall session approach and how all of these dovetail to provide enabling conditions that promote the transmission of information on climate change to the non-literate population in rural areas.

Fig. 1.1: The interface between the four concepts

Fig. 1.1 above represents the conceptual framework for this paper and it shows the interface between the various concepts. It is easy to see from the diagram that the process of town-crying and the town-hall session are mediums that can improve knowledge dissemination of climate change to the non-literate rural populace in Nigeria. This rudimentary traditional processes or mediums of knowledge dissemination play a very symbolic role in the way of life of the people making it easy for them to reckon with these modes of communication. While modern-day media platforms are relevant, the two indigenous methods highlighted in the framework have the potential of attracting the attention of non-literate population especially because it has some degree of symbolic relevance in the cultural practices of the people.

Theoretical Framework: Symbolic Interactionism

The theoretical framework adopted for this paper is the symbolic interactionist perspective which is one of the dominant views within the micro theories in sociology. As a perspective that explains interaction in human society, symbolic interactionism relies on the symbolic meaning that people develop through interactions with others especially based on the use of language, gestures and symbols. It is a sociological perspective on self and society based on the ideas of George Herbert Mead and Charles H. Cooley but expanded by Herbert Blumer. It holds that through social interaction, we create, recreate and maintain our definition of the interaction with others based on the meanings we derive. In the light of this, Adams (cited in Brian, 2008) is of

the opinion that when actors create and maintain their definition of others around them, it affects the larger social definition of what everyone in the society should do or not do in relation to these actors. By extension, symbolic interactionism simply holds that human beings construct their meaning of the social world based on the subjective views that they get out of simple day-to-day processes of interaction with others.

According to Herbert Blumer (1969), symbolic interactionism rests on a tripod of assumptions. The first assumption is that human beings act towards things on the basis of the meanings that the things have for them. Such things include everything that the human being may note in his world (physical, abstract and institutional). The second assumption is that the meaning of these things are derived from or arises out of, the social interaction that one has with one's fellows based on the use of symbols, gestures and language. The third assumption is that these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters.

Central to the theoretical viewpoint of symbolic interactionism is the underlying assumption that people make meaning out of their interactions especially when such interactions are based on familiar symbols, gestures and language. In other words, the use of these mediums of interaction provides a basis for interacting individuals to make meanings out of their interface with others. Hence, symbols and language play a major role in the exchange of information as well as the understanding of what is communicated. As a result, within the context of this paper, symbolic interactionism becomes very useful as a theoretical framework given its insistence on symbolism and language application to knowledge dissemination.

Town-criers and the process of town-crying is an integral part of the culture and tradition of the indigenous people of Nigeria and most parts of Africa. Hence, town-crying has a symbolic place in the culture of the people as a traditional medium of communicating information to members of the community. In this regard, deploying town-criers as a medium of communicating climate change knowledge to non-literate people in rural areas in Nigeria, Africa and other parts of the world would go a long way to increase the knowledge level of climate change among the people especially the non-literate ones. This is mainly because town-crying carries a distinctive symbolic character that makes villagers pay serious attention when the town-crier moves around the community disseminating information. In light of this, the symbolic interactionist perspective is particularly relevant in terms of addressing the objectives of this paper especially because it sees town-crying, town-hall sessions and the use of local languages or Pidgin English as symbolic to non-literate villagers in rural areas of Nigeria.

Method

The content analysis approach and qualitative method were adopted here for the purpose of gathering and analyzing data in this paper. Information was largely sourced from secondary materials such as textbooks, articles in print and online journals among others. The information gathered were analyzed using the thematic approach as is usually the case with qualitative data.

As a result, the information collated from secondary sources were aggregated under designated themes based on the objectives of the paper as shown below.

The problem with high-level climate change knowledge dissemination

High-level knowledge dissemination involves the use of sophisticated mediums of communication such as conferences, technical sessions, and the media among others to pass messages to people using mostly English language that may end up edging out a large number of the non-literate population. The very nature of the subject matter of climate change especially given its highly scientific disposition makes it amenable to high-level discussions and communication. This high-level method of engaging in climate change issues is further exacerbated by the fact that a good number of the global rendezvous on the subject tend to take place at what is considered the knowledge environments of the world namely, Washington, Geneva, Paris among others. The challenge with this is that the erroneous assumption that all societies understand this high-level engagements and language associated with climate change discussions has been responsible for equally communicating climate change through sophisticated media outlets and languages. It is in support of this that Buttler (2017), maintains that many sources of communicating the causes and problems of climate change have largely excluded illiterate people from mostly rural communities in Africa and other parts of the world.

Recent researches on the knowledge or awareness level of climate change among rural people in Nigeria is still problematic especially because there is yet to be a consensus on the subject matter. For instance, while data from the studies by Oruonye (2014) as well as Obinna, Thomas, Jenkins, Phillips and Komali (2017) found that the knowledge level of farmers in rural areas is high with over 76 percent of their sample agreeing that they are aware of climate change and its deleterious effects, those conducted by Adetayo (2013); Nwobodo and Agwu (2015) and Anabaraonye, Okafor and Hope (2018) seem to suggest otherwise. The latter studies found moderate and low knowledge levels of climate change among rural farmers in Nigeria. However, a closer examination of the socio-demographics of the respondents associated with these studies revealed that they had more rural persons in their sample who can read and write, suggesting that they did not focus entirely on the non-literate population in the rural areas.

Interestingly, non-literate people in rural villages tend to be more in number than the literate or semi-literate ones especially in Nigeria where all these studies were conducted. Even where semi-literate farmers have indicated some level of knowledge of climate change, they tend not to have an understanding of its causes and consequences suggesting that what they know may not be enough. This is particularly the position of Nwobodo and Agwu (2015), who found in their study of the knowledge level of climate change among youth farmers in Benue State that 33 percent of their respondents displayed some knowledge of climate change with little understanding of what the causes and consequences are. In fact, according to them, a good number of the respondents do not even believe that climate change is caused by human actions. The point then is given this rather weak knowledge of the cause of climate change, there is a

strong chance that this set of persons may continue with actions that increase climate change without even knowing that they are part of the problem.

While there is no doubt on the fact that the awareness of climate change has spread dramatically in recent years given its prominence in the media (Bako, 2013), a good number of the non-literate population in most rural villages in developing countries like Nigeria have little or no idea concerning the causes and consequences of the alteration in the climate. According to Makinde (2017), knowledge dissemination on climate change issues have relied more on academic conferences and media publicity without considering the fact that very few of the people in developing countries have the ability to read and write. While it is agreed that the mobile phones and the use of the internet have dovetailed to increase the speed and geographical coverage of information dissemination, a significant number of villagers in most rural areas only know how to make and receive calls on their mobile phones. This technical deficit in the use of mobile phones by a large number of rural people in Nigeria and most developing nations of the world clearly suggest that the non-literate population in rural areas may be starved of vital information or knowledge on sensitive matters like climate change even when they are the ones that are disproportionately affected by it.

There is a good chance that increasing the knowledge level of the non-literate population in rural villages in Nigeria will equally raise their chances of getting involved in actions that are aimed at reducing or adapting to the impact of climate change in such areas. It is the position of Care Climate Change (2010) that in most parts of the developing world, the knowledge level of climate change and of course the inability to develop indigenous conservation skills in this regard have been very instrumental to the inadequate adaptive capacity of local people in such areas to the negative impacts of climate alteration. This goes a long way to show that climate change knowledge level has a significant link to how people adapt to such changes. This is in view of the fact that what you do not know, you may not be able to tackle. Perhaps this is why Oruonye (2014), maintained that the success of managing or mitigating or even adapting to climate change lies on the level of knowledge or awareness that people have concerning the causes, consequences and dynamics of the problem. This is especially true for the non-literate population living in rural villages and truer for those who inhabit rural coastal areas like those in Nigeria's Niger Delta region where climate change impact is now being felt more than ever before.

Thus, while a lot is being done to educate people on the already established fact that climate change is real and it is causing serious problems for humans on earth, it is important that we integrate seemingly rudimentary or indigenous methods of spreading information on climate change especially to the non-literate population around the world. The next section of the paper narrates how the use of town-criers and town-hall sessions can go a long way to not just inform rural non-literate and semi-literate people on the issue of climate change but equally get them to desist from practices that will further undermine their environment as well as increase their vulnerability to climate change and its associated negative consequences.

Town-crying, Town-Hall Sessions and Climate Change Knowledge Dissemination to non-literate population

The use of town-criers and communal gatherings that we now refer to as town-hall sessions are some of the most potent ways of disseminating information in traditional African societies. While these methods seem to be very far away from the current reality of the information society or the knowledge economy that the world is now in, it nevertheless still represent a viable method of information in rural areas and even semi-urban areas in most developing nations especially where the use of mainstream media such as Televisions and Radio is largely undermined by electricity supply. Munguyi (2015) is of the opinion that the use of town-criers for knowledge and information dissemination in rural villages of Kenya still remains very useful even in the face of globalization and spread of mass media as well as social media in recent times. This according to Munguyi, is simply because a large number of the population in Kenya are still uneducated as to be able to rely on modern mediums of information dissemination.

As a result, town-crying, as well as town-hall sessions, can be deployed to aid the process of communicating climate change knowledge to especially non-literate and semi-literate people in remote villages in Nigeria and most parts of Africa. Going from place to place, town-criers using their gongs or even modern loudspeakers in their local languages or Pidgin English have the capacity to communicate issues concerning climate change to members of their communities with ease. What is even more, the cultural significance of town-crying gives it contextual relevance and potency in terms of attracting listeners more than any radio or television jingle on the subject matter can ever achieve. A study by Ovuyovwiroye (2013), on climate change awareness in Nigeria with regard to urban and rural areas, revealed that only 9 percent of his rural respondents had knowledge of climate change as against 35 percent of his urban population. This goes a long way to show the poverty of climate change knowledge with regard to rural villagers in the country. It is a known fact that non-literate people who have marginal income and dwell in marginal areas tend to have more adverse impact on their environment. This is mostly a result of the fact that they do not have sufficient knowledge of how to manage their environment.

In the current information society, people who are educated tend to have quick and better access to knowledge about happenings in their immediate vicinities as well as the world in general when compared to the non-literate population. This is because non-literate people seem to find it difficult to use modern technologies that make information gathering a lot easier. To make matters even worse, most rural areas in Nigeria are faced with a strong deficit in basic enabling infrastructure that ought to have made the use of television and radio less stressful. Even when such infrastructure like electricity is available, the mode of communication has always been high-level English instead of the local languages of the people. Based on this, it is the submission of this paper that a significant number of the rural population in Nigeria have very little or no knowledge of climate change and its associated effects. The article by Akpomi and Vipene (2016) on the promotion of knowledge of climate change amongst Nigerians and its implication for education managers is particularly apt in terms of stressing the need for people to be

informed on the issue. For instance, the above scholars did argue that “Nigerians need to be educated and informed about climate change and how it can alter our lives drastically as lack of information (awareness) and knowledge (education) about these changes also mean that many people are reluctant to accept the reality of climate change” (p.132). Sadly, Akpomi and Vipene (2016) were equally caught in the web of high-level thinking on climate change thereby neglecting the non-literate rural majority who may not be able to benefit from the formal high-level ways that are currently being used to pass climate change knowledge around the world. To achieve meaningful knowledge dissemination on climate change and collective action towards ensuring that people adapt to this change, the non-literate rural population in Nigeria and elsewhere in the world must be properly informed. This can be done by mainstreaming traditional or rudimentary methods of communication into the process of climate change knowledge dissemination. Fig. 1.2 below captures the strategy for ensuring climate change knowledge dissemination through the use of town-criers and town-hall sessions in villages.

Fig. 1.2: Climate change knowledge dissemination model for non-literate population

The Figure above provides a model showing the interactive process of disseminating climate change knowledge to the non-literate people in rural areas. While the process of town-crying climate change knowledge depends on the traditional use of wooden or metal gongs, in recent times, the use of microphones and loudspeakers on vehicles seem to be faster in terms of geographical coverage. However, where the road infrastructure is bad to enable the use of vehicles, town-criers may have to rely on the old way of walking around the community to educate people about climate change. Non-governmental organizations (NGOs) involved in climate change activities, government and corporate bodies can support this process to make it

easier for local people. The next strategy is the town-hall session which is enabled by the town-crying process. First, the town-crier would have to go round to inform people of the need to meet at a designated hall for discussions on climate change. This method should take the form of an extended focus group discussion with all relevant stakeholders in the village. Here also, NGOs and the government, as well as corporate bodies, are useful in providing funding, technical expertise and security.

Evidence suggests that the use of town-criers and town-hall sessions have been very effective in not just providing rural people with information on a broad range of issues, but it has also proved to be a potent force in ensuring compliance to action points arising from the process. Town-criers represent traditional symbols of communication and they attract respect from the members of the communities because it is believed that they are the mouthpiece of the community. Ottah and Umar (2017) are of the opinion that town-crying represents a symbolic and unique means of communication which is embedded in the tradition and culture of the people. It is this cultural embeddedness that makes town-crying a highly reliable means of knowledge dissemination in rural villages in Nigeria and other parts of Africa. Similarly, Osho (2010), maintains that the use of town-criers to send messages across to people in the villages attract serious attention given that they represent a prominent part of the culture of the people. Going by these views especially the cultural relevance of town-crying, it follows that if it is mainstreamed into climate change knowledge dissemination, it would go a long way to attract significant commitment from the people. This is because, of the value placed by the people on these traditional or indigenous modes of communication. This is perhaps why Adekunle, Onyibe, Ogunyinka, Oand Auta (2002), have argued that despite the fact that several channels and methods such as the media, in the traditional African settings where most residents are illiterates, town-crying remains the most viable, cost-effective and respectable mode of passing information to members.

Conclusion

The paper examined the issue of town-crying for knowledge dissemination on climate change to non-literate rural people in Nigeria. The central focus was to prove that current approaches to climate change knowledge dissemination are too high-level and limited in terms of educating non-literate villagers in Nigeria and other parts of Africa on the causes and consequences of climate change. Based on this, the paper concludes that the very nature of climate change and its associated effects makes it attractive to high-level academic engagements that necessarily lead to the use of sophisticated mediums of communication such as the use of social and mainstream media outlets, journal publications among others. These high-level mediums of communicating climate change knowledge globally rest on the erroneous assumption that everybody knows how to read and write. Sadly, this is not the case with non-literate rural dwellers in Nigeria and most parts of the world who need to be educated on climate change as much as the literate population.

The paper also concludes that the use of town-criers and town-hall sessions form a symbolic part of the culture of the people making it an effective medium of communication in non-literate rural communities. Hence, deploying them as a way of disseminating climate change knowledge to rural people will prove to be effective given the bond that these people have with their cultural

belief system. Also, the use of town-criers to spread climate change knowledge to rural people has the potential of not just increasing knowledge levels but also to help strengthen the preparedness and adaptive capacity of the people.

Recommendations

Based on the submissions and conclusion reached in this paper, the following recommendations have been proffered to help increase knowledge of climate change among non-literate rural people in Nigeria and other parts of the world.

- i. Put indigenous mediums of communication side-by-side high-level modern methods. This has been referred to as *trado-modern* method of communication (Wilson, 2005a). To achieve this, there is every need to introduce the use of town-criers in the dissemination of climate change knowledge to rural dwellers. This can be done in line with the traditional way of using local drums or metal / wooden gongs by an individual or a group of individuals who move from one point to another to inform members of climate change and its effects. In addition to the use of town-criers, town-hall sessions can be convened to discuss the issue of climate change using the local language of the people. This will go a long way to attract participation from a broad range of stakeholders in the rural areas, hence, making it easy to communicate the causes, trends and progress on climate change issues to rural people as a way of extending the frontiers of knowledge and ensure that more people in the rural areas, especially the non-literate ones, become increasingly aware of climate change and the threats it poses to them.
- ii. Technical partnership from Non-governmental organizations and government. To ensure sustainability of the use of town-crying and town-hall sessions as viable options to disseminate climate change knowledge to non-literate communities in Nigeria, NGOs working in the area of climate change or the environment, as well as government, must have to be involved. While town-crying is a rural-based method of passing knowledge to members, it nevertheless requires the support of NGOs to provide technical knowledge on the subject matter. This can be translated into the local languages of the people to avoid the familiar problem of high-level communication.
- iii. Lastly, the traditional town-crying process of using drums and gongs can be modified and replaced with loudspeakers. However, communication should remain in the language of the people in question. This is because non-literate people tend to identify with messages when they are communicated through their local languages.

References

Adekunle, A.A., Onyibe, J.E., Ogunyinka, O.M., & Auta S.J., 2002. *Agricultural information dissemination: An audience survey in Kano State*. Institute of International Tropical Agriculture (IITA) and Information Communication support for agricultural growth in Nigeria Publication, Ibadan, Nigeria: IITA.

- Adetayo, A. O. (2013). Assessment of poor resource farmers' level of awareness on climate change and adaptation/mitigation strategies in some selected rural areas in Oyo State, Southwest, Nigeria. *International journal of African and Asian Studies*, 1(1): 18-22
- Ajani, E.A. Mgbenka, R. N., & Okeke, M. N. (2013). Use of Indigenous Knowledge as a Strategy for Climate Change Adaptation among Farmers in sub-Saharan Africa: Implications for Policy. *Asian Journal of Agricultural Extension, Economics & Sociology*, 2(1): 23-40.
- Akpomi, M. E. & Vipene, J. (2016). Promoting knowledge of climate change amongst Nigerians: Implications for education managers. *Journal of Education and Practice*, 7(32): 132-138.
- Anabaronye, A., Okafor, C. O., & Hope, J. (2018). Educating farmers in rural areas on climate change adaptation for sustainability in Nigeria. *Springer Nature Switzerland AG 2018*. Retrieved on 16 October, 2018 from <https://www.researchgate.net/publication/328074602>
- Bako, M.M., 2013. Climate change vulnerability assessment in parts of Northern Nigeria. *Nigerian Journal of Tropical Geography*, 4(2): 449 – 470.
- Blumer, H. (1969). *Symbolic interactionism; perspective and method*. New York: Prentice-hall Englewood cliffs.
- Brian, A. (2008). *Symbolic interaction and the use of cultural materials*. Oxford: Oxford University Press.
- Buttler, K. (2017). *Land use and climate change knowledge*. London: Routledge.
- Care Climate Change (2010). *Community-based adaptation toolkit*. Retrieved on 16 October, 2018 from http://www.careclimatechange.org/tk/cba/en/Open_Toolkit.html.
- Climate Change Council of Australia (2016). *On the frontline: Climate change and rural communities*. Australia: Climate Council of Australia Limited. climatecouncil.org.au
- Dube, T., & K. Phiri, (2013). Rural livelihood under stress: The impact of climate change on livelihoods in South Western Zimbabwe. *American International Journal of Contemporary Research*, 3(5): 1 – 9.
- Fakunle, O. (2015). *Challenges to rural education on climate change*. Lagos: Moji Books.
- Intergovernmental Panel on Climate Change (2007). Climate Change 2007: Impacts, adaption and vulnerability. Summary for policy makers. *A Report of working group 11 of the intergovernmental panel on climate change*, WMO, UNEP. Retrieved on 11 August, 2018 from <http://www.IPCC.ch/pub/wg2SPMfinal.Pdf>.
- Makinde, S. (2017). *Climate change education in Nigeria*. Ibadan, University of Ibadan Press.
- Munguyi, F. (2015). Climate change knowledge dissemination to local people in Kenya. *Journal of Environmental Studies*, 3(2): 66-72
- Nwobodo, C.E. & Agwu, A. E. (2015). Knowledge level of youth farmers on climate change in Benue State of Nigeria. *African Journal of Agricultural Research*, 10(30): 2875-2881.
- Obinna, I. K., Thomas, T., Jenkins, R.E., Phillips, M. R., & Komali, K. (2017). Climate change impacts, awareness and perception of Africa rural farming communities. *Advances in Crop Science Technology*, 5(6): 11 – 25.
- Oruonye, E. D. (2014). An assessment of the level of awareness of climate change and variability among rural farmers in Taraba state, Nigeria. *International Journal of Sustainable Agricultural Research*, 1(3): 70-84

- Osho, S.A. (2010). African communications system. Abeokuta: ESS-OH consult publications
- Ottah, G. A. & Umar, H. (2017). Traditional media of communication as tools for effective rural development: A study of Ibaji Local Government Area of Kogi State. *International Journal of Communication, An Interdisciplinary Journal of Communication Studies*, 102-117. Retrieved on 16 October, 2018 from.
<http://journal.ijcunn.com/index.php/IJC/article/download/10/10/>.
- Ovuyovwiroye, O. P. A. (2013). Analysis of climate change awareness in Nigeria. *Scientific Research and Essays*, 8(26): 1203-1211.
- Raimi, L., Jack Jackson, T.B.C & Boroh, S. (2016). Can indigenous knowledge help in climate change adaptation? Leveraging empirical evidences for policy in Nigeria. Paper Presented at the 1st Regional Conference on Disaster Risk Reduction held at Amatu Braide Hall, University of Port Harcourt, Rivers State, Nigeria, 11th – 12th October, 2016. Centre for Disaster Risk Management and Development, UNIPORT.
- Wilson, D. (2005a). *New perspectives in applied communication*. Ibadan: Stirling Horden Publishers Ltd.

Author's Profile

Dr. Lasisi Raimi holds a Doctor of Philosophy (Ph.D.) and a Master of Science (M.Sc.) degrees in Sociology of Development as well as a Bachelor of Science (B.Sc.) degree in Sociology from the University of Port Harcourt, Nigeria. His major research interests are in the areas of; sustainable development, environmental sociology, peace and conflict studies. Dr. Lasisi Raimi works as a Lecturer and Coordinator of the Department of Sociology and Anthropology, Faculty of Humanities and Social Sciences, Federal University Otuoke, Bayelsa State, Nigeria. Dr. Lasisi is a member of the European Centre for Research Training and Development, United Kingdom (ECRTD) as well as the Nigerian Anthropological and Sociological Practitioners Association (NASA). He has published several articles in national and foreign learned journals. His most recent articles are; Intelligence failure and insecurity in Nigeria: An analysis of the Boko Haram insurgency published in the *International Journal of Strategic Research in Education, Technology and Humanities*, 7(1), 106-120 as well as Boko Haram and social identity theory: Explaining the enigma that is threatening national and regional peace in Africa, published in the *Bangladesh e-journal of Sociology*, 16(2), 53-77. He can be contacted via lasisirr@fuotuoche.edu.ng