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CLIMATE CHANGE AND TERRORISM IN NIGERIA

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Abstract

Climate change discussion has primarily focused on the physical manifestation, mitigation, adaptation and finance issues. However, little attention is given to the social consequences of climate change impact especially its relationship with terrorism. Specifically, little or no research has been focused on the relationship between climate change and terrorism especially in developing societies. This study examined the impact of climate change on terrorist activities in Northeast Nigeria. The study adopted a cross-aged design which involves in depth interview of 200 farmers in four selected states of the zone. The outcome is that climate change awareness in the zone is very low. The climate change events identified are excessive heat, rapid desertification and drought. The consequence is that most farmers lost their farmlands and agricultural products to these climate change events. Also most of the farmers who are youths were rendered redundant due to the negative impact of these climate events on agriculture. Consequently, they engage in alternative activities like menial jobs, while some engage in criminal activities like drug addiction, theft, political thuggery, armed robbery, kidnapping and terrorism. They become ready tools for recruitment by Boko-Haram terrorists who are active in the area. It is recommended that massive enlightenment and effective mitigation programmes should be conducted, youths who are not in school should be convinced to embrace education. Also measures and projects to re-engage the youths back to agriculture should be promoted.

Keywords: Climate change, terrorism, crime, agriculture, consequences.

1.1 Introduction

Global climate change has become an everyday reality with the growing intensity and frequency of floods, droughts, earthquake and extreme weather disasters. Climate change is a change in the properties of climate system that persists for several decades. Climate change may be due tonatural processes, such as change in the sun's radiation, volcanoes or internal variability in the climate system, or due to human factors such as gas flaring, deforestation, overgrazing, burning of fossils and construction activities (Egbe, Okafor & Akalonu, 2019).

The Inter governmental panel on climate change (IPCC, 2007) opines that human activity, (primarily related to fossil fuel consumption) is largely responsible for a change in the properties of the climate system. The variability in weather patterns have been felt in Africa and other parts of the world in varying manifestations and degree. In some parts of the world, it is the rapid melting of the Arctic ice cap, changes in Arctic seabird populations or threat to the polar bears. In other parts, mudslides, increased drought, rise in heat wave, drought, rising sea levels and unprecedented rainfall.

Nigeria is largely an agricultural society with over 70% of her population mostly youths and women rudimentarily engaging in agriculture. Agriculture is Nigeria's biggest employer of labour, on which over 75% of northern Nigerians depend for their subsistence. In Nigeria, unpredictable weather conditions affect agricultural activities tremendously in several negative ways, thus leading to loss of arable land and crops which in turn leads to low yield in crop production and high mortality rate of farm animals resulting in loss of livelihood and hence poverty. It also creates total despondency and frustration among the agricultural population, mostly made up of youths. The tendency therefore is that most of the youths who normally engage or could engage in agriculture are made redundant while others abandon the endeavour. Consequently, most of the youths migrate to the urban centres in search of non existing jobs. These migrant youths lack formal education and skills vital for survival in the urban areas. Generally however, most of the youths who hitherto would have been actively engaged in agriculture become very vulnerable and engage in various criminal activities.

Climate change induced civil unrest and insecurity in Nigeria is basically of low interest to researchers in this part of the world. Specialists in climate change are of consensus belief that scarcity of natural resources and the mismanagement of available resources are the major causes of civil unrest in Nigeria without looking at what causes the scarcity of these resources. However, little attempts have been made by researchers to investigate how climate change has motivated these conflicts. It is this gap that the study intends to fill. This study, therefore, examined the relationship between climate change and terrorism in Nigeria with particular reference to North East Nigeria.

1.2 Objective of the Study

The main objective of this study is to examine the relationship between climate change and terrorism in Nigeria. While the specific objectives of the study are:

(i) To determine the socio-economic characteristics of the respondents;
(ii) To ascertain the level of awareness of climate change among respondents in the study area;
(iii) To examine the impacts of climate change on agriculture in the study area; and

(iv) To assess the relationship between the negative impacts of climate change on agriculture and high rate of crime and insurgency in the study area.

1.3 Research Questions

The following research questions were raised to guide this study:

(i) What are the socio-economic characteristics of the respondents?
(ii) To what extent do the respondents know about climate change?
(iii) To what extent has climate change affected agriculture in the study area?
(iv) Do the negative impacts of climate change on agriculture promote terrorism in the study area?

2.0 Literature Review

2.1 Concept of Climate Change

Climate change is a pattern of change affecting global or regional climate as measured by such things as average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused by both natural and human factors. Climate change is a complex interaction between earth's atmosphere-stratosphere and troposphere-on one hand and land biosphere (Allen, 2004; Solomon et al, 2008).United Nations Framework Convention on Climate Change (UNFCCC:1992) defines climate change as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. Changes in temperature and precipitation resulting in changes in soil moisture, increase in sea level and more extreme weather events, such as floods and droughts are among the most known impacts of global climate change (IPCC, 2001; WHO 2009).

2.2 Concept of Terrorism

Terrorism is today considered one of the most serious global security threats to most countries. The definition of terrorism has not yet been established as the concept is conceptualized differently by different individuals. In noting the difficulty in defining terrorism, Onwudiwe (2001, 28) emphasized that "today's terrorist is tomorrow's freedom fighter", "terrorism to some is heroism to others", "one man's terrorist is another man's freedom fighter". Poland (2011) defined terrorism as the "culturally unacceptable use of threat or violence directed toward symbolic targets to influence political behaviour." Expanding on the political definition of terrorism, the Federal Bureau of Investigation (FBI) defines terrorism as "the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives" (National Institute of Justice, 2017, 1).

2.3 Climate Change and Terrorism

Nyong (2007) asserts that the major source of conflict in most of the Northern states in Nigeria is ecological degradation induced by climate change. Similarly, Barnet and Adger (2007) observe that climate change is increasingly being called a security problem because there is concern that climate change may increase the risk of violent conflict. The underlying proposition is that climate change is likely to undermine human security by reducing the natural resource base and limiting access to existing natural resources which are central to sustainable livelihoods, especially in developing countries.

According to Omolo (2010) increased droughts lead to over grazing and competition for available pastoral land, leading to violence. Folami and Folami (2013) established a linkage between climate change and inter-ethnic conflict, concluding that there is an escalation of conflicts between ethnic groups and within communities over access to dwindling resources. Odo and Chilaka (2012) linked the perennial violent clashes in northern Nigeria with climate change and, therefore, advised researchers to look beyond religion and politics in explaining causal bases of violence in the north. Onuoha and Ezirim (2010) in their study on human insecurity in Nigeria, opine that climate change is one of the causal factors of insecurity.

2.4 Theoretical Framework

The study adopted the Homer-Dixon theory of "Eco-violence" propounded by Homer-Dixon (1998). According to Homer-Dixon, large populations in many developing countries are highly dependent on four key environmental resources that are very fundamental to crop production: fresh water; cropland; forests and fish. Scarcity or shrinking of these resources as a result of misuse, over-use or degradation under certain circumstances will trigger off conflicts and insecurity.

The fundamental assumption of the theory is that resource scarcity is the product of an insufficient supply, too much demand or an unequal distribution of a resource as a result of environmental hazards that force some sectors of the society into a condition of deprivation and violence. Thus, environmental resource scarcity will affect agricultural and economic productivity, further inducing the disruption of economic livelihoods, poverty and migration. Migration can occur either because the environmental habitat has become unconducive or, more commonly, because the migrant's economic outcome is likely to be better in areas with greater resource availability. Both constrained productivity and migration are likely to strengthen the segmentation around already existing religious, class, social, political, psychological, ethnic or linguistic differences in a society and thus cause conflicts and insecurity (Gleditsch&Urdal, 2002). The theory helps to explain the link between climate change and terrorism.

3.0 Materials and Methods

3.1 Study Instrument

Data for this study were collected using a structured questionnaire and in-depth interview schedule and were validated using face and content validity. The questionnaire sought information about the socio demographic characteristics of the respondents and their knowledge, perceptions, and attitudes about the causes and effects of climate change on agriculture.

The study made use of a community-based descriptive cross-sectional survey. Multistage sampling was used to select respondents for the study. It comprised the purposive selection of two LGAs from each of the four sampled states in North East Nigeria (Adamawa, Bauchi, Borno and Yobe) based on peculiar vulnerability factors which include drought, desertification and other natural disasters. The criteria for selection of the respondents are that they are farmers and have resided in the locality for at least ten years. Fifty respondents each were randomly selected and interviewed from each State.

3.2 Data Analysis

To ascertain the level of awareness of climate change, respondents were asked to indicate their knowledge of climate change and their responses were measured on a nominal scale of Know a lot = 4, know = 3, know a little = 2 and don't know = 1. The percentages of the observations on the scales were determined. To ascertain the perceived causes of climate change, a list of possible causes of climate change obtained from literature and field observations were provided and the respondents' perception were measured. The perceived effects of climate change were ascertained by providing a list of possible effects of climate change obtained from literature and personal observations and respondents were asked to indicate the ones they perceive as effects. Data obtained were analyzed using frequency and percentage distribution.

4.1 Discussion of Findings

The socio-demographic characteristics of the respondents showed that 66 % (132) of the respondents are males, while 34 % (68) are females. In other words, a greater percentage of the respondents interviewed are males, because it was difficult to have access to the females because of religious restrictions. The analysis also revealed that 27.5% of the respondents fell within the age range of 20- 30 years old. This suggests that majority of the respondents are in their active years and if the challenges of climate change are addressed, these people can help boost food availability to avoid malnutrition. It can also be inferred that the age range accounts for most criminal activities in Nigeria. The findings show that the majority of respondents (49.5%) are Muslims with minority Christians and traditional African religious worshippers. 40.5 % of the respondents have stayed in the study area for over 15 years, while others have spent a little below 10 years. The respondents have been living in the study area long enough to notice changes in the weather condition overtime.

4.2 Level of Awareness of Climate Change

The findings show that a greater proportion (32.3%) of the respondents know a little about climate change, 27.8 % and 14.5% know and know a lot about climate change, respectively. The result further indicates that a significant proportion (23.8%) of the respondents do not know about climate change. Generally put, 32.3% of the respondents have little knowledge of climate change; only 14.5% know a lot about climate change. This awareness level is relatively better than that reported by (Pugliese and Ray, 2009) which shows that only 44% of those in Sub-Sahara Africa are aware of climate change. 23. 8% of people in the study area do not know what climate change is all about. This clearly shows that information on climate change in the grassroots or the rural areas is poor. This is not a good omen for Nigeria's economy because it has been established that the impact of climate change is hitting harder those in the rural areas of African countries whereas the rural areas hold the agricultural strength of the continent (Rukevwe, 2008; Odjugo, 2010).

Moreover, personal discussions with some of those who claimed to know much about climate change reveals otherwise as their knowledge is actually poor; since majority of them could not say what climate change actually means. In general, Nigerians understand climate change in terms of change in weather pattern. And this is limited to their sensual awareness of abnormal increase in the level of heat and the effect it has on agriculture.

Those who are aware of climate change also made clear their sources of information. The respondents in the study area got to know of climate change mainly through radio and

television presentations followed by personal observation. Radio is a major source of information in the study area. The basic truth about most rural dwellers in Nigeria is that, majority of them cannot afford the cost of buying a television set even if the electricity is there, so the best option is the radio transistor which they can afford. Another noteworthy result from the rural areas is the 14.8% who indicated that their knowledge of climate change is based on personal observation or experience. This is so because, most rural dwellers in Nigeria are in the agricultural sector; be it farming, fishing or animal rearing. This makes them to be in constant touch with nature, most especially when over 95% of agricultural practices in Nigeria are based on rain-fed agriculture (Okoye &Onietan, 2009).

4.3 Effects of Climate Change on Agriculture

The menace of climate change variably goes with attendant effects on agriculture. Results show that massive desert encroachment has led to massive loss of farmland and in some cases, residential land as indicated by the respondents' high percentage of 90.8%. 79.5% of the respondents stated that increasing drought and shortage of rainfall leads to crop failure and death of livestock. About 77.8% respondents also stated that there has been increased manifestation of strange pests and diseases which affect crops such as guinea corn, maize, millets and tomatoes. 77.3% of the respondents indicated that the shrinking of the Lake Chad had strongly affected fishing in the study area. In a similar study that corroborates the findings, effects of climate change mentioned were agriculture, health, water resources, biodiversity, and coastal degradation, in order of importance (Maibach et al, 2008). In other studies, Ayinde, Muchie and Olatunji, (2011) noted that climate fluctuation is putting Nigeria's agricultural system under serious threat and stress.

4.4 Consequences for Terrorism

On the consequences of the identified negative effects of climate change on terrorism. The respondents were asked about the consequences of the identified effects of climate change on terrorism especially on the youth. 88.0% of the respondents stated that the youths are no longer interested in agriculture due to low crop yield occasioned by climate change.73.3% of the respondents stated that the negative effects of climate change on agriculture have made the youths vulnerable for recruitment by the Boko haram and has also made them to engage more in other criminal activities. 68.5% of the respondents believe that the rate of unemployment has increased in the study area. The finding is in conformity with Eichelberger (2014) that drought, population explosion and poverty are aggravating conflict in Nigeria and climate change will likely complicate it. Also, Dambazzau (2014) asserts that States in the Northeast are lacking necessary infrastructure, unemployment is extremely high and vast majority of the people experience extreme poverty, enabling Boko haram to easily recruit people in the area.

Based on the findings of the study low agricultural productivity occasioned by climate change impact is positively related to high level of insurgency in Northeast Nigeria.

5.1 Conclusion

This study investigated the relationship between terrorism and climate change in Nigeria with particular reference to North East Nigeria. It was discovered that people in the study area have poor knowledge of the causes of climate change but good knowledge of the negative effects of climate change on agriculture. Climate change in the study area has resulted in huge

impacts on the environment. These impacts resulted in massive desert encroachment, droughts, low productivity of crop and livestock. Consequently, the youths who were engaged in agriculture in frustration abandon the farms for other alternative activities. Some of them engage in menial jobs such as night guards, hawking, petty trading and commercial motorcyclists. However, majority of the youths engage in criminal activities like armed robbery, kidnapping, cattle rustling and terrorist activity.

The implication of this result is that in the Northeast zone, the consequences of climate change impact has made the youths to abandon agriculture and thus become vulnerable tools for Boko Haram terrorists who easily recruit and use them for terrorist activities. Climate change is among the most pervasive threats to the Earth today, there is need to address its root causes and limit its impact on the planet. It is only when the people are aware of the causes and effects of climate change that they can adjust their unsustainable actions on the environment. Such knowledge will also help them to adapt to the effects of climate change.

5.2 Recommendations

- Government at all levels should pursue vigorously, public enlightenment on climate change using media like television, radio and printed materials such as newsletters, newspapers, leaflets, bill boards, journals and textbooks. The enlightenment programs should be organized in both English and the local language of the people.
- Lecturers, teachers, religious leaders, traditional rulers and market leaders should be sent by the government to 'train the trainers' courses on climate change so that they can impact such knowledge on their subjects.
- The Federal Government should make it compulsory that climate change should be infused into the school curricula at all levels of education.
- Seminars and workshops on climate change should be organized more frequently by various levels of government. Such seminars and workshops should be free to participants and the communiqué of such conferences be repeatedly published or broadcast on different mass media.
- Since agriculture is the highest employer of labour in Nigeria, the government should budget more to develop the sector. Farmers should be enlightened on modern farming techniques such as the use of improved seedlings, modern farming equipment sand preservation techniques.
- Interest-free credit facilities should be given to genuine farmers to enable them embark on commercial farming. Agricultural banks should also be located in the rural areas close to the farmers and the procedure for accessing the credit facility should be made simple to enable the farmers have easy access to the facility.

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