

AN ASSESSMENT OF CLIMATE CHANGE AND THE CONSEQUENCES OF MIGRATION IN AFRICA

Jibrin Ubale Yahaya
National Open University of Nigeria

*Corresponding Author
E-mail : jibrinubaleyahaya@gmail.com

Abstract

The issue of climate change has resulted to migration of large number of peoples from various African countries to different places in the world seeking for livelihood. The consequences of this action have blown up continues spread of migrant from Nigeria, Niger Republic, Chad and Cameroon as a victim of environmental related problems or insecurity, if proper care is not taking in the next 20 to 30 years coming the implication and dangers associated with migration can seriously damage the structure of functional Ecosystem operation in the African region and nature of governance conduct in many Africa countries. The paper will use secondary source of data to generate relevant information regarding to the research problem in the area of the study. The paper has two major findings, firstly, in Africa it has been observed that some our culture and human attitudes has some negative consequence to the healthy environment and secondly, most of the government policies in Africa has not address the problems of climate change that led to higher of number of migrations as a result of poverty, desertification, flooding and many other environmental problems.

Keywords: *Climate change, migration, poverty, insecurity and unemployment*

INTRODUCTION

Climate change has become one of the major problems that was in the face of continues damaging and affecting the lives of both human and animal existence at the detriment of some unfriendly environmental activities engage by poor human attitudes towards our natural environment. The nature of the problems has affected our environment, it may be as result of human activity intervention or without any human inducement such as flooding, storm, draught and many other natural calamities. The natural environment in Africa has larger number of factors that has led to what brought about some lingering causes of climate change with the eccentricity features of the earth structure that has really affected the planet system which has characterized with extraterrestrial features such as change of solar radiation quantity, raised of emission which directly affect the greenhouse gasses production and has direct connection to affect the stability of the Ozone layer.

“Climate change has emerged as a potent driver of migration. In 2018, the World Bank launched the flagship report Groundswel, Preparing for Internal Climate Migration, which projected that by 2050 more than 85 million people could be forced to move within their countries in Sub-Saharan Africa without concrete climate and development action. In the same study, West Africa is projected to have up to 54.4 million internal climate migrants by 2050 under the pessimistic scenario. The Groundswell report underscored that early and concrete inclusive development undertaken at local and national level, coupled with global action to reduce greenhouse gas emissions, could reduce the number of climate migrants significantly, by as much as 80 percent in the case of Sub-Saharan Africa (Rigaud, 2018)”.

“Nigeria has witnessed an increasing number of displacements in response to recent natural hazards and disasters. Massive natural disasters events were recorded in 2012 and 2018, giving Nigeria an average of 785,000 flood displacements a year over the past decade, the highest

figure on the continent. Floods could displace an annual average of 442,000 people in the future, giving Nigeria the highest flood displacement risk in Africa (IDMC, 2019)’’.

However, the concepts of climate change and environmental degradation has been cited many scholars in their work (Fatima, Wadud & Coelho, 2014 cited in Agheyisi, 2017, p.50). ‘‘Agheyisi (2017) pointed out and rightly so, that while much has been written on climate change and environmental degradation, less has been said about climate change – induced migration. Indeed, very few scholars tried to establish the fact that climate change induces migration of humans from less climate friendly to more climate friendly areas (Okoye, Obiorah & Nwoke, 2020; Lanshima, 2020; Agheyisi, 2017). Unfortunately, this climate change – induced migration has Part of the explanation of the misfortune falling in the Sahel has been the impact of climate change: the 25-year drought in the Sahel in 1968–1993 contributed to the collapse of rural societies (Descroix et Lambert, 2018), whose survival mechanisms have proven to be insufficient to cope with the impacts of the changing climate’’.

Moreover, again Sartori was of the view that ‘‘Many countries of the Africa are particularly vulnerable to climate change because of their heavy reliance on rain-fed agriculture, which contributes 40 per cent of the combined Sahelian gross domestic product (GDP) and employs more than 70 per cent of the labour force in the Niger, Burkina Faso, Mali and Chad (Sartori and Fattibene, 2019).’’

Vizy and Cook in their work has cited that ‘‘ the temperatures in the region have been rising. Since 1950, weather stations in West Africa have measured an increase of around 1°C across the region (Morice et al., 2012), and in the Sahel the change is higher – 1.5 to 2°C. Monthly temperature records show that the warmest months of the year – April, May and June – have experienced even greater increases in temperature of up to 3°C (Guichard et al., 2015). According to Niang et al. (2014), average temperatures in the region are projected to increase between 1.5°C and 4°C by mid-century, compared with the period 1986–2005. The number of heatwave days each year is also projected to increase significantly by 2050, especially in the western Sahel (Vizy and Cook, 2012)’’.

It has been argued by many scholars that ‘‘the implications of this warmer temperature for rainfall are less clear. A significant increase in climate variability is expected. This means more frequent droughts and heavy rainfall events (IPCC, 2014), disrupted planting and cropping seasons, and hence lower yields and falling household income. In Ghana, land degradation decreased agricultural incomes by USD 4.2 billion between 2006 and 2015, and poverty increased by 5.4 per cent in the same period, due to various factors, including land degradation. The annual cost of land degradation was estimated at about 0.5 per cent of GDP in Tunisia and Morocco (IPCC, 2019) and up to 20 per cent in Burkina Faso (UNCCD and Peri, 2016)’’

The issue of climate change and environmental abuse was one of the major factor that expose many communities in African region to migrate out of the their original places to other more safe environment to further earn a comfortable lives as result of environmental desertification or link to some other social malice of poverty, insecurity that has push many peoples out of their traditional environment as cited in many migration global reports such as such as the Global Compact for Safe, Orderly and Regular Migration Reports. The major aim of this paper is to try to measures the implication of climate change towards the lives of many communities in Africa

and propose ways on how to address the problem of migration through providing adequate and appropriate policies on safe environment, poverty, insecurity and inequality.

From the above discussions cited by scholar we can be able to understand two major contending issues, firstly, the climate change and environmental related abuse policies has induced mass migration from African countries to many other places is an issue that effect the indigenous African co-existence in the continent. Secondly, it become a source of concern to well-meaning stakeholder in the continent, who view the exit of these talents, skills, labor and human resources from the area as a great loss and a practice that will not guarantee sustainable development of the African continent in the future to compete with another continent of the world.

RESEARCH METHODOLOGY

The research method is literature review or literature study, which contains theories relevant to research problems. The problem in this research is to find out the assessment of climate change and the consequences of migration in Africa. In this section, the concepts and theories used is carried out based on the available literature, especially from articles published in various scientific journals. Literature review serves to build concepts or theories that form the basis of studies in research. Literature review or literature study is an activity that is required in research, especially academic research whose main purpose is to develop theoretical aspects as well as aspects of practical benefits.

RESULTS AND DISCUSSION

Climate and Environmental Change-Driven

In this portion of this paper we need to further discussed changing driver that continuously change nature of our natural environment let us review some relevant study conduct by scholars in different parts of African countries to further exposed some ideal cause of climate change in Africa for instance in Burkina Faso peoples from dry areas are most of time moving temporary or permanently or a wet and moisture areas to feed animals and farm for living, while Mali some communities has been pull out migrate to close by communities as a result of drought. Many reasons may be a likely a driving force for peoples to move from one place to another such as drought, flooding, dry nature of the land, conflict and poverty.

The study of Bleibaum (2009) ‘‘on two villages in Senegal’s Peanut Basin demonstrated that the richest village had individuals who migrated to larger cities or Europe, and for longer times, while in the poorer village, people migrated seasonally only to the cities. All the interviewees coming from dry areas said that they would have left (for the cities or abroad) if life in the village—which depended on agriculture – was no longer possible, while those living near the river, where irrigated agriculture was possible, said that they would have stayed.’’

‘‘In the Niger, Senegal and Benin, migration often occurs in fragmented journeys, where crossing the border is only one step of the longer itinerary. To diversify the incomes and sustain the families, households send one of their members to the city, with the aim of receiving remittances to cope with the disruption (Jonsson, 2010)’’. According to Afifi (2011), ‘‘environmental degradation has a considerable impact on migration in the Niger. Although seasonal migration is part of the culture of the Niger, long-term and permanent migration is becoming more frequent, due to the effects of climate change. Migrating to Europe is not a

common dream for the people of the Niger. They generally prefer to stay on their land but, when environmental conditions deteriorate, rural youths are left with no choice other than moving elsewhere to live and work. According to Mounkaila (2002), it is a chronic food deficit that would lead to the permanent abandonment of an environmentally degraded area. It is a last resort solution because immobility would result in death from starvation.”

“Guinea, the Gambia, Côte d’Ivoire, Nigeria and Senegal, as coastal countries, are also highly vulnerable to environmental changes in the form of coastal erosion, soil salinization and land degradation. Senegal ranked as the world’s eighth most at-risk country in terms of sea-level rise (Amara et al., 2019)”.

We can further understand this driver by looking at the variables under discussion as cited by the Wheeler “wile a growing number of fishermen had to leave their homes and equipment because of the rising sea, mass out-migration of youth in the surrounding dry areas often leads to land abandonment. In Nigeria, according to a 2011 study, the homes of 9.7 million people could be affected by sea-level rise in 2050 (Wheeler, 2011).”

However, another scholar has argued that “ the main climate-induced risk relevant to Nigeria is due to the decreased economic opportunities. A total of 60 per cent of Nigeria’s population and three quarters of its unemployed are under 30 years of age. Evidence suggests that disenfranchised young people who lack resources and economic opportunity are more likely to join violent non-State groups such as paramilitary forces. Nigeria has also witnessed how the climate-migration dynamics contribute to increasing violence and conflicts. The shrinking of Lake Chad has become a threat for over 15 million Nigerians living in the area and about 10 million others living outside Nigeria’s shores (Akubor, 2017)”.

Abbass (2012) was of the view “that the exacerbation of vulnerability and conflict in Northern Nigeria is both a product of the impact of climate change and drought leading to competition between farmer and pastorals.”

Here are the conceptual linkage between climate, conflict and migration

CLIMATE	CONFLICT	MIGRATION
<ul style="list-style-type: none"> • Drought Crop failure • Poor natural resource Management 	<ul style="list-style-type: none"> • Conic over scarce resources • Demographic pressures in destination area 	<ul style="list-style-type: none"> • Internally displaced persons • Asylum seekers/refugees Economic migrants

Table 1. Conceptual linkage between climate, conflict and migration

The above table describes how climate change and poor management of natural resources exacerbate conflict and instability due to competition over scarce resources. As a consequence, climate-induced conflict can trigger migration and displacement has been observed by many African countries. The linkage which shows the consequences result of the climate change can easily push peoples to migrate to look for livelihood. The above model is trying to connect the emerging issues of climate change to the cause of migration and as result of migration many conflicts emerge between the migrant and host communities because competition for the allocated limited resources at their disposal.

Major Issues effecting Environment in Africa

This paper will also discusses on some key factors and issues that led to degrading and abuse of our human environment in Africa which are key trigger point either as natural calamity or artificial created as a result of human action that can simply push many categories of peoples to pull out to migration to other places to earn a living.

1. Problems of Desertification

” the United Nations General Assembly declared June 17 the 'World Day to Combat Desertification and Drought' to promote public awareness of the issue, and the implementation of the United Nations Convention to Combat Desertification in those countries experiencing serious drought and/or desertification, particularly in Africa. Long before this declaration, 11 northern states of Nigeria, namely, Zamfara, Sokoto, Kebbi, Jigawa, Yobe, Borno, Bauchi, Kano, Gombe, Katsina, and Adamawa were already suffering the impact of climate change as these states were being and are still ravaged by desertification (Okeke, 2014).”

However, another scholar Jaiyeoba (2002) was of view that “desertification was evident in Northern Nigeria, and about 20% of Nigeria's land had been desertified despite the problem was first reported in the 1920s. These views are corroborated by Odiogor (2010) who noted that 350, 000 hectares of land are lost every year to desertification and this has led to demographic displacements in villages across 11 states in Northern Nigeria. To buttress this point, Medugu (2011) noted that arid and semi-arid areas in Northern Nigeria are becoming drier and climate uncertainty is growing at alarming rate and has become a threat to food security and as cursor for deadly conflicts.

From the above discussion we can understand the nature and the level youth and able-bodied persons from these arid states, who should be the backbone of sustainable development in northern Nigeria are compelled to migrate to other parts of Nigeria and across national boundaries to look for a livelihood which this large number of productive segment of society can be given opportunity to be empowered in their local communities with migration that raised the level of human development index in Africa.

2. Drying and Shrinking of Lake Chad Basin Problem

The Lake Chad Basin is one of the largest water sources that cover four major countries of Nigeria, Niger Republic, Chad and Cameroon and millions of communities who are residing close or little bit far away from the river their lives depend on the full availability of water in the places many of such peoples some are fishers and mainly farmers.

A scholar in person of Beyioku is of the view “that the Lake Chad Basin originally occupied a land space of 40,000 square kilometers. Due to its shrinking, it occupied 25,000 square kilometers some 50 years ago However, Lake Chad has lost 95 percent of its water and only covers about 1,300 square kilometers today. With the drying up of the Lake Chad, the livelihoods of 40 million people have been put at risk. Furthermore, there is the big threat that the Lake Chad could turn into pure desert as research has thrown up fossilized evidences that in prehistoric times, most of the deserts today, the Sahara Desert inclusive, used to be vast seas (Vanguard Editorial, 2018). The ecological disaster that ensued as a result of the shrinking of Lake Chad has displaced millions of people off large swathes of fertile agricultural lands. With the shrinking of the Lake, a critical mass of the young and able-bodied men and women had to migrate to the more fertile and greener parts of Nigeria (Beyioku, 2016)”

3. Other Water Source Drying up in Nigeria

Nigeria as a geographical location has a nature of God endorse environmental climate which includes vegetation structure, mangrove areas and high forest side areas in the South-South, South -East and South West, while the Savannah grassland found in the middle belt toward desert areas which are in Northern part of the country.

Idowu (2018) observed that ''precipitation of the Coastline and South-Eastern Nigeria records 3000mm, the South-West records 4000mm, the Middle Belt records 2000mm while the North (East and West) is the driest zone and records only about 500mm. Thus, the low precipitation in Northern Nigeria leads to water shortage.

Based on the above explanation we can come to understand the implication drying up of water sources in Nigeria both from Southern and Northern part is a kind a good trigger factor that has expose many able youths to migrate to different parts of the countries or even move outside to other countries to look for living in other angle this drying of water source has created a continuum of insecurity in places like North East where they issue of insurgency cases since 2009.

4. Annual Rainfall Reduction

Many scholars in the field of geography and environmental science have make many scientific predictions on the low range flow of rain fall in many of countries of the world due to relating it with the nature on human being abuse of our environment by our unlawful activities such as excessive environmental pollution of human being, industries pollution, blockage of big rivers source and cutting up of trees has augment the level of low rain inflow as some of the causative factor.

It has been observed by Geographical Alliance of Iowa (2010) and Adedoyin (1989) in their work whose maintain ''that the annual rainfall in South- South and South-West Nigeria is over 4,000mm. South-East Nigeria has annual rainfall of between 2,000mm and 3,000mm. In the Middle Belt of Nigeria, the tropical savanna climate presents a well-marked rainy season and a dry season. Therefore, the annual rainfall in the Middle Belt is between 1,500mm to 2,000mm. In this area, it rains from April to October (Adedoyin, 1989; Geographical Alliance of Iowa, 2010).

5. Problem Deforestation in Africa

The problem of deforestation in Africa has long been one of key environmental issue affecting the lives of human being and our natural environmental it has been cited by Food Agricultural Organization an arm of the United Nation (UN) which reported that since far back 2005, Nigeria as a country has highest rate of deforestation in the world. '' Between 2000 and 2005, Nigeria lost 55.7% of her primary forests – which is forests with no visible signs of past or present human activities. Logging, overgrazing, and collection of fuel wood are cited as leading causes of deforestation in Nigeria (Federal Republic of Nigeria, 2000). According to Federal Republic of Nigeria (2005), in 2005, 12.2%, the equivalent of 11,089,000 hectares (27,400,000 acres) had been forested in Nigeria. Between 1990 and 2000, Nigeria lost an average of 409,700 hectares of forest every year, which was estimated to be an average annual deforestation rate of 2.38% (Federal Republic of Nigeria, 2005). Furthermore, between 1990 and 2005, Nigeria lost 35.7% of its forest cover, or around 6,145,000 hectares (Federal Republic of Nigeria, 2005). Odjugo (2010), also posited that from 1990 to 2010, Nigeria

nearly halved its amount of forest cover, moving from 17,234 to 9041 hectares. Eleven northern states, namely, Sokoto, Kebbi, Jigawa, Kano, Katsina, Bauchi, Gombe, Adamawa, Borno, Yobe and Zamfara are the most affected states in deforestation. The excessive exploitation of forests exposes the dry sandy soil of these arid areas to strong winds during dry season. The situation is getting worse by day (Lakpini, 2018; Askira & Sabo, 2012).’’

From the above view of the Lakpini, et al, we can simply make a clear linkage between the deforestation and the issues of climate change, many African countries was on the habit of deforesting their environment in such a way that kind of attitude temper with healthy environmental survival .

6. Problem of Drought

Drought is one of the natural calamities that usually affect both man and his environment in such a way that the food production goes in to a lower rate which can easily led to communal or societal hunger which make effected victims with no any alternative rather than migrating to look for places with moisture and water to feed animals and farm for a food security. It is a natural phenomenon, resulting from meteorological changes. Drought can have substantial impact on the ecosystem and agriculture of the affected region (Australian Government Bureau of Meteorology, 2018) and harm to the local economy (McGuirk, 2007). Drought brings heat and heat has significantly compounded the climatic conditions in Northern Nigeria by hastening evaporation of water. Furthermore, it has lowered water surface and subterranean water levels, lowered flow levels, reduced water quality and increased pollution of surface water, caused drying out of wetlands, loss of biodiversity, worsened health of trees, caused lack of pasture for cattle, promoted appearance of pests and dendroid diseases, caused bad health of people directly exposed to excessive heat waves, diminished crop growth, yield, and carrying capacity of livestock, promoted dust bowls (erosion of landscape), dust storms, caused malnutrition, dehydration and related diseases (Mosley, 2014; Mosley et al, 2012; Hogan, 2010; Mosley et al, 2014)’’ .

7. Africa and the Issue of Wind Storms

Storm is a kind of deserter which is a natural but as early mention the nature of the activity of man towards his environment can promote the vulnerability and its effect on man and his environment. For instance, for that has culture of cutting forest they are prone to this deserter than the one that preserve forest and tree around the environment.

’’A storm is any disturbed state of an environment or in an astronomical body's atmosphere, especially, affecting its surface, and strongly implying severe weather (Harley, 2017; Rincon, 2010)’’ . Another scholar Harley, et al has of the view that’’ a wind storm therefore, is a storm marked with high wind with little or no precipitation. In the 11 frontline desert northern states of Nigeria, strong winds are known to affect visibility, damage crops, destroy buildings, bridges, and so on, turning loose debris into deadly weapons that affect human beings, crops, and cattle. Wind storms in northern Nigeria are a strong contributory factor to mass migration of capable hands from the area, who should contribute to sustainable development.

From the above discussion we can understand that storm is a kind of natural deserter but to some extend the activity of like deforesting of the environment can aid and promote its effect and implication on man and his environment.

CONCLUSION

Climate change is a reality in Nigeria in particular and Africa at large, and is projected to affect most of the sectors of the economy directly dependent on healthy ecosystems and natural resources. Many African countries has likely been affected by the problems of climate change such as flooding, drought, storm, deforestation and dry up rivers which has tender large groups, individual in Africa to move from one place to another within the territories of their respective countries or go beyond outside their border looking for a livelihood. The second issues discussed in this paper is linking the phenomenon of migration with conflicts and insecurity emerge in various African countries like Nigeria, Niger Republic, Chad, Cameroon, Mali and many other countries that has pushed many individuals and groups to migrate from their traditional environment to a more productive or safe environment.

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