

FIGHTING THE CLIMATE MONSTER IN NIGERIA: A BATTLE FOR ALL.

SARAH AJIYA & BOT POLYCARP MOSES

Department of Political Science Bingham University Karu,
Nassarawa State

ABSTRACT

Climate change as a global phenomenon affects everyone globally, both rich and poor stand to lose. Experts say Nigeria is greatly at risk of climate change because of its over 800km coastline, one of the continents longest. A sea level rise of over 0.2m, resulting from climate change, can generate floods over 3,400 square kilometer of the coastline (Ekot, 2009 quoted in Eze & Oche, 2010). People who are already affected by poverty, malnutrition and diseases will continue to face the problem of displacement from either floods, climate change related conflicts, desertification, drought, and new hardship. All sectors of socio-economic development, including the natural ecosystems will continue to be destroyed as a result affecting the achievement of Sustainable Development Goals (SDGs) especially those related to elimination of poverty and hunger and promoting environmental sustainability. The aim of this paper is to examine the challenge climate change poses, its impact on the population and the need for urgent and collective solutions. To achieve that, the paper generated data mainly through the secondary source which includes: printed and recorded material, published information (books, journal articles, government publications, statistical records, newspapers, magazines, conference proceedings, annual reports, and archival data) and electronic sources (online databases, the internet, and CD-ROMs). The paper argued that climate change is a reality and there is alarming evidence that human activities are the main culprits of global warming and unless a collective action is taken globally to fight this monster called climate change, human societies may collapse in the face of uncertainty. Therefore the paper recommended immediate and radical response from Government and individuals in order to avoid negative health consequences for present and future generations.

INTRODUCTION

Until recent times not many people especially in developing countries though that climate change is a security threat to human environmental conditions, and that it can be influenced by human activities was a major area of contestation. By the 19th century, scientists were theorizing that temperature was affected by what we call green house gasses (GHG). Arrhenius a Swedish scientist opined that human industry might cause the planet to get warm. But this notion by many was considered as a distant possibility. Over the course of the 20th century, the scientific community came to terms with this theory and accepted that climate change is a serious threat capable of human extermination if unattended to.

During the 1970s, the term climate change became very popular in order to focus on anthropogenic causes of climate change. It has become quite clear that human activities have altered the climate, thereby making it warmer.

Climate change was incorporated in the title of the intergovernmental panel on climate change (IPCC) and the United Nations framework convention on climate change (UNFCCC) to provide an objective source of scientific clarity. (<https://en.wikipedia.org>) climate change can therefore be defined as an increase in the earth's average temperature. The average temperature of the globe has augmented and if the current trend continues through 2030, the earth will experience an average rise in temperature

from 34.7 degrees to 40.1 degrees Fahrenheit (Potter and Brown, 1999). This increase in temperature leads to global warming which in turn brings about climate change.

Reliance on fossil fuels as energy source and the widespread destruction and burning of forest are chiefly responsible for climate emissions – which are the green house gases that are responsible for climate change. Such gases are carbon dioxide, methane, nitrous oxide, carbon dioxide.

As populations, economies and standards of living grow, so does the cumulative level of green house gases (GHGs) emission (<https://en.wikipedia.org>) Human beings are the major contributing factors to climate change. Human activities such as our daily work, domestic, industrial and agricultural behavior are threatening the balance of the ecosystem and nature, and we all are going to face the consequences.

Despite all these, there are skeptics of climate change who do not consider climate change as a serious problem. They do not see climate change as an ecological trouble and to them: the average rise in the earth's temperature should not be a cause for alarm. They see climate change as a good phenomenon which will increase humidity in tropical deserts and that the rate of plant growth will be triggered by the level of carbon dioxide in the air.

Although climate change impact affects all countries, the poor countries are the worst hit. In fact more seriously to be affected by the impact of climate change,

is the African countries who are facing decrease in agricultural land, potential food production and subsequently food security. Other threat will be experienced in the areas of water stressed as hydrologic variability affects water quality and supply. flood, drought, increased environmental degradation, more frequent extreme weather events, resource scarcity resulting to increase level of warming altering biophysical systems which in turn affects human health and socio-economic wellbeing.

While the possible threat of climate change cannot be disputed, the subject matter still appears insignificant on the list of policy priorities of most governments in less industrialized countries like Nigeria.

Efforts at mitigating the devastating impact of the phenomenon at the national level did not go beyond the Kyoto protocol of 1997 with the agreement to reducing GHG emission, Vienna convention on the protection of the Ozone layer, Rio de Janeiro United Nations Convention on climate change with aim to prevent anthropogenic interference with the climate system (1994), the Copenhagen summit 2012 and many more interventions.

Yet attitudes towards dealing with this monster (climate change) in Nigeria or Africa at large receive nonchalant attention.

Therefore, this paper examines the challenge climate change monster poses in Nigeria and the need for urgent and collective solutions.

CONCEPTUALISING CLIMATE CHANGE

Climate change is presently the most widely discussed subject with fifty million (50,000,000) entries on the subject in 2009 (Google, 2009). Google lives us unequivocally with no dearth of information on the subject. However, this myriad of information necessarily imposes a responsibility of careful selection of relevant materials that will be beneficial to this ongoing discourse. Since excess information in this or in other areas could be counter-productive.

According to Wikipedia (2009), Climate change is change in statistical distribution of weather over periods of time that range from decades to millions of years.

Perhaps this definition may seem vague to some readers, the same writer suggested another usage of the concept thus; Climate change usually refers to changes in modern climate. The simplicity in the second conception is obviously lost in the repetition of the word change in climate to explain climate change.

Climate change is a synonym for global warming which is caused by the emissions of green house gases. These emissions cause environmental distortions like warming of the oceans, the rise in sea level, and the fact that average temperatures in the world today are already higher than they were at any point in history. At the heart of the climate change problem is the depletion of the Ozone layer as a result of increase in CO_2 levels due to emissions from fossil fuel

combustion followed by aerosols (particulate matter in the atmosphere) and cement manufacture (page, 2006; Wikipedia 2009). Also contributing to global warming are land use, Ozone depletion, animal agriculture and deforestation.

Agbu (2009) and Oche (2010) believe that climate change can easily be understood within the framework of globalization and globalization is an increase in the impact of human activities of forces that span national boundaries (Agbu, 2009).

The point of circumvention in the above definitions is that, climate change is very likely caused by human activity with rapid increase in global average temperature over the past several decades.

IMPACT OF CLIMATE CHANGE ON HUMAN SECURITY IN NIGERIA

Climate change as a global phenomenon affects everyone in a hotter and more volatile world, both rich and poor stand to lose (Oladipo in Eze & Oche, 2010). Experts say Nigeria is greatly at risk of climate change because of its over 800km coastline, one of the continents longest. A sea level rise of over 0.2m, resulting from climate change, can generate floods over 3,400 square kilometer of the coastline (Ekot, 2009 quoted in Eze & Oche, 2010). People who are already affected by poverty, malnutrition and diseases will continue to face the problem of displacement from either floods, climate change related conflicts, desertification, drought, and new hardship. All sector of

socio-economic development, including the natural ecosystems will continue to be destroyed as a result affecting the achievement of Sustainable Development Goals (SDGs) especially those related to elimination of poverty and hunger and promoting environmental sustainability.

Another area which climate change is affecting Nigerians is in the area of agricultural production and food security. Climate change affects rainfall, temperature and water availability for agriculture in vulnerable area like the savannah which is increasingly becoming an arid environment at a very fast receding rate per year occasioned by fast reduction of the amount of surface water, flora and fauna resources on the land (IPCC, 2001). Wind erosion could be quite severe in most Sahel states of Sokoto, Zamfara, Kebbi, Katsina, Kano, Jigawa, Borno, Yobe, Adamawa and Bauchi as a result of drought condition in the area (Ononina, 2008).

Nigeria is said to be losing about 351,000 square kilometers of its land mass to desert encroachment which is advancing southward at the rate of 0.6 kilometers annually. From mangroves and rainforests on the Atlantic coast in the south to savannah in the north bordering the Sahara, are affected by the effects of climate change (Federal Ministry of Environment, 2009).

All economic activities are affected by climate change, as well as quality of life and patterns of human settlement. Increased and higher rainfall damages roads and increase the road maintenance

costs as flooding will result to economic loss of property and human/animal lives (Federal Ministry of Environment, 2009). Fishermen, farmers, herdsmen are now confronted with the threat of climate change through the loss of livelihoods which impoverish them the more, creating refugees and internal displacement of people. oil fields in the Niger-delta are managed by oil giants who engage in environmental hostile practices of gas flaring which add up to the problem of warming of the communities (Federal Ministry of Environment, 2009).

MITIGATING THE IMPACT OF CLIMATE CHANGE IN NIGERIA

There are basically two responses to the challenge of climate change. They are the mitigation and adaptation models. The Mitigation model talks about intervention model or putting in place policies to reduce global warming through managing emission of green house gases in the atmosphere to minimal level. Among the many mitigation technologies already on or nearing the market are renewable energy sources like biofuel, biomass, wind, solar and hydropower energy, low carbon building materials, electric cars and lot more. This policy may not be possible in Nigeria because we lack the financial resources or sophisticated technology to mitigate the effects of this global monster which is "climate change" at the moment.

The Adaptation model talks about responses to the changing climate and

policies to minimize predicted impacts of climate change. Adaptation is a process of adjustment where measures will be taken in order to reduce risks and impacts of climate change so that the negative effects can be moderated. This is where Nigeria and other African countries may fit in because of their slim resources and poor institutional framework. In addition to soft technologies which this less developing countries can adopt like crop rotation, decisive education on the impact of climate change, change of attitude towards handling the environment like indiscriminate waste disposal, felling of trees without replacement, building home on water ways, hard technologies for adaptation include improved irrigation techniques to cope with drought, new resistant plants that can cope emerging diseases or salt water (WIPO Magazine, 2008). Other measures that can be taken are:

- Farmers can be enlightened to plant drought resistant crops.
- Government can introduce temperature lowering building materials.
- Rehabilitation of over grazed lands.
- Reducing Forest and wood land destruction while Tree Planting campaigns should be encouraged.
- Strengthening health care delivery system to combat any disease outbreak.
- Better Drainages should be built, blocked drainages and Stagnant water should be cleared.
- Constructing Protective devices such as dykes and flood walls.
- People should be discouraged from

building in areas prone to flooding, and those residing in areas prone to flooding should be resettled and such areas should not to be developed for residential, commercial or official purposes.

SOME FRAME WORKS ON THE MITIGATION OF CLIMATE CHANGE

There are quite a number of organizations concerned about climate change and how it can be fought, these Organizations are mentioned below.

The United Nation Intergovernmental Panel on Climate Change (IPCC)

This panel was set up by the world metrological organization [WMO] and the United Nations Environment in order to provide scientific information on climate change (IPCC,2007). The panel received about 5 Assessment Reports on climate change and in 2013 and in its fifth assessment, it defined clearly the role played by human activities in climate change.

United Nations Framework Convention on Climate Change [UNFCCC]

This Frameworks was setup in 1992 during the United Nations "Earth Summit" to address the problem of Climate Change. It has a membership of about a 197 countries that have ratified the convention; Nigeria was also among these countries. The concern of the convention is to prevent dangerous human interference with the climate System (UNFCCC, 2009).

Paris Agreement

Parties to the United Nations Frame Work Convention on climate change reacted a landmark agreement to fight climate change and to accelerate and intensify the actions and investment needed for a sustainable low carbon future during the 21st conference of parties in Paris in 2015. The Paris agreement's aim is to strengthen the global response to the threat of climate change (UNFCCC, 2009).

Kyoto Protocol

In order to strengthen global response to climate change, countries launched negotiations in 1995 to this effect. Two years later, the_Kyoto Protocol was adapted to legally bind developed countries parties to emission reduction targets. The first commitment period of The Protocol started in 2008 and ended in 2012. The second commitment period started on First January 2013 through 2020. There are 192 parties to the Kyoto Protocol (United Nations, 1998).

METHOD OF DATA COLLECTION

Data was generated mainly through the secondary source. The use of secondary data affords the study access to information already processed and thought out than data from primary sources (Creswell, 2003). Secondary data used in this study includes: printed and recorded material, published information (books, journal articles, government publications, statistical records, newspapers, magazines, conference proceedings, annual reports and archival

data) and electronic sources (online databases, the internet, and CD-ROMs). These data, accessed from libraries, books and the internet, enriched the understanding of the context, impacts, needs, and objectives of the subject matter. Also, secondary data allows the study to make comparisons and identify patterns (strengths and weaknesses) of the different approaches to the area of the study. However, accessing government documents and statistics on Nigeria's Climate Change proved hard as the system of data storage was inefficient and information was generally hard to come by.

FINDINGS.

From the findings of this study, it has been discovered that climate change is a reality and there is alarming evidence that human activities are the main culprits of global warming and unless a collective action is taken globally to fight this monster called climate change, human societies may collapse in the face of uncertainty. These environmental problems resulting from climate change now threaten human existence need immediate and radical response from Government in order to avoid negative health consequences for present and future generations.

From our little interaction with a group of herders who do come around the university to graze their Cattle, we have been able deduce that there is more to the Farmers/Herders conflicts than meets the eye balls which we won't want to bring up

here. These conflicts however, are not totally unconnected to climate change as we have been able to find out that the indirect impact of climate change is part of the conflicts because the adverse effects of climate change has brought conflict over scarcity of resources such as water and even grazing lands. Desert encroachment and other climate change factors affecting the livelihood of Herdsmen as they push further south in search of available space and land (Agrawal, 2008). The Herders have attested to this fact, they have confessed that they no longer have enough grazing lands like they used to have in the past and they also claimed that their grazing lands have been encroached upon and the available lands they have left have been degraded. So, for the survival of their cattle they go in search of pasture for their cattle which often times, does not go down well with Farmers.

Another disturbing discovery is the flooding which has been taking place in some parts of North East and Middle-belt areas. Streets are always flooded after a down pour and Residence are left displaced or migrating to a better place. This are phenomenon that are here to stay as a result of the impact of climate change brought about by rising sea level, because such had never been experienced in the past. It is quite pathetic that most times we have a non-challant attitude and a government that is slow to respond to emergencies.

RECOMMENDATIONS

Despite the consensus among Scientists that the life threatening consequences of anthropogenic climate change are quite evident, not much is being done to fight climate change. The earlier we begin to treat climate change as the disaster that it is, the safer the world would become.

The following strategies are therefore recommended to address climate change. All countries are advised to sign the Kyoto Protocol and make firm commitment to reduce emission by all means.

Governments should support environmentally friendly life styles and also encourage the use of renewable energy as a solar power, hydro electricity, e.t.c

Heavy Polluters should be taxed heavily by Governments and money realized could channel towards fighting climate change.

Tree planting campaigns and green spaces should be highly encouraged.

New communities should be designed with environment friendly materials.

Health care providers should be trained and the general public should be enlightened on how to deal with the effects of climate change

Policies to checkmate human activities contributing to climate warming such as

deforestation should be put in place by Governments.

Oil exploring companies should be taxed heavily for causing pollution and the money recovered can be channeled towards policies at remedying global warming.

Global campaign on the necessity to put all hands on deck to fight climate change should be taken seriously. People need to be educated on the dangers of climate change and the need to remain calm and alert when faced with challenges.

CONCLUSION

It is now glaring and apparent that human activities are perturbing the climate system on a global scale. The present uncontrolled mining activities going on in Nigeria are likely to poise a great danger to the ecosystem. Increased Government participation in fighting climate change globally is necessary. We cannot afford to pretend that all is well while we are being faced by a monster that is ready to strike at anytime. Less developed countries are likely to be hit most by the effects of climate change because they do not have what it takes to fight this Monster and the level of awareness in most less developed countries concerning climate change is quite low. Although climate change is a global issue, there are different levels of commitment at local and regional levels, but we all must take action in order to make the earth a safe place for us to live on.

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