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IMPACT OF GLOBAL CLIMATE CHANGE ON NIGERIA'S EVOLVING DEMOCRACY

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ABSTRACT

There is now a widespread belief underpinned by growing scientific consensus that one of the biggest challenges facing humankind today is the issue of global warming caused by climate change. Climate change is simply any change in climate over time caused by natural variability or as a result of direct or indirect anthropogenic activity. This study has adopted sociological perspectives bordering on political economy, human ecology and environmental impact approaches to explain how human factors have been chiefly responsible for climate change which has altered the composition of the global atmosphere leading to negative environmental and social consequences. In Nigeria, environmental degradation, ecological crisis, waste management problems, flooding, deforestation, spread of gully and erosion, reduction of food production, local health problems like asthma, cholera, cancer, chronic bronchitis, blood disorders, and other diseases, are highlights of climate change in the country. Even then, the adverse consequences of accentuated climate instability are predicted to increase. Consequently, the question of whether democracy matters for climate change or whether climate change matters for democratic sustainability in Nigeria is the focus of this paper. The study concludes that without addressing the negative impacts of climate change in Nigeria, the democratic stability in the country may be threatened.

Keywords: Climate Change; Anthropogenic Activity; Environmental Degradation; Ecological Crises; Global Warming.

INTRODUCTION

While the political managers in Africa and in many developing states are contending with problems facing their style of democratic system, and the embedded challenges of poverty, election rigging, ethno-religious conflicts, entrenched official corruption and a negative syndrome of sit-tightism by the political elite, another dimension has been introduced into this fray. Democracy, the dominant organising political system of the early twenty-first century, is under threat in ways that it has never before been con-

fronted through environmental and social challenges that are accelerating faster than the ability of current forms of democracy to cope (Ward, 2010). As Ward observed, if democracy is to survive the challenges of the twenty-first century, it will likely have to outperform any currently or potentially competing political system in relation to those challenges. With formidable environmental and natural resource challenges already visible and threatening, the question is whether democracy will prove resilient in the face of climate change; and whether half of the

global population who today are privileged to live in some form of democracy may begin to find their democratic rights and freedoms undermined and eroded. As Ward concludes, manmade climate change - the result of a global warming process caused by increasing levels of greenhouse gases such as carbon dioxide and methane in the atmosphere - could prove to be the single greatest threat to democracy as we know it. Therefore, addressing the issue of climate change and its impact on the democratic development of modern states has become very necessary since factors that undermine environmental sustainability may degenerate into health problems, water and food crisis, environmental degradation, waste management crisis, and other social and environmental challenges that would and could affect the health, wellbeing and welfare of the citizens of such states, provoking agitation and unrest from them that could threaten the democratic stability of these states.

This view was shared by the United Nations Framework Convention on Climate Change (UNFCCC, 2009), where it acknowledged that there exist serious adverse effects of climate change, notably those on crop production and food security, marine and coastal ecosystems, coastal livelihood, water resources and human health. This situation is pronounced in especially vulnerable regions of the world, and is increasingly posing a risk to the attainment of sustainable development and of the Millennium Development Goals.

In this study, the authors employed qualitative research to investigate the linkage between environmental governance and sustainability and democratic governance and sustainability. The challenges climate change poses to Nigeria's fledgling democracy were

also considered along with practical solutions.

Conceptual Clarification of Climate Change and Democracy

There is now a strong global consensus that climate change presents an urgent challenge to human welfare and sustainable development (Anyadike, 2009; Eboh, 2009; Ozor, 2009a & 2009b; Ward, 2010). Climate change is seen as statistically significant variations that persist for an extended period, typically decades or longer and includes shifts in the frequency and magnitude of sporadic weather events as well as the slow continuous rise in global mean surface temperature (IPCC, 2001 & 2007). According to Anyadike (2009), there is no such thing as a "normal" or average climate but as the weather changes from day to day, so also climate changes from year to year. He notes that these changes are, however, cyclical or largely unnoticed, except by climatologists. He concurs with the IPCC's submission that climate change is that change in climate that continues in one direction at a rapid rate and for an unusually long period of time, lasting for several years. According to a report, climate change is caused by anthropogenic activities which alter the composition of the global atmosphere over comparable time periods, leading to changes in climate parameters such as cloud cover, precipitation, temperature and vapour pressure (Federal Ministry of Environment, 2003).

As Anyadike (2009) observed, the three major causes of climate change are astronomical causes, volcanic eruptions and anthropogenic (human-related) causes. This study is concerned with the anthropogenic dimension of climate change because human activity is most likely to have a large impact on the climate with the burning of "fossil fuels"

such as coal, oil and gas, including gas flaring. These fuels contain carbon, and burning them makes carbon dioxide gas. Gas flaring, for instance, threatens global health by emitting significant volumes of greenhouse gases which contribute to climate change and threatens local health by emitting toxins that poison local villagers, their lands and rains, flora and fauna. Furthermore, energy generation in Nigeria is by thermal means, i.e. burning of fossil fuels e.g. gas, petrol, kerosene and diesel. In fact, the present Nigerian micro and macro economy depends on generators for the supply of electricity, thus increasing the country's carbon footprint and further tipping the country towards an ecological crisis. The situation is further exacerbated by the lack of technological development in the country which has left it with fewer options regarding the adoption of renewable energy technologies to meet its energy needs. An estimated 60-70% of the Nigerian population does not have access to electricity, while energy demand in Nigeria is dominated by firewood and coal and women and children are the most affected in the energy crisis (Uyigue, Agho & Edevbaro, 2007). Thus, energy production processes in Nigeria through the burning of fossil fuel and the use of firewood, resulting in deforestation and de-vegetation, increases Nigeria's ecological vulnerability and exposes the citizens to the negative impact of climate change unless the trend is checked. Continued deforestation and de-vegetation of the country through crude energy production practices, bush burning, urbanisation and industrialisation remains an important potential factor in climate change in Nigeria.

The primary direct effects of climate change are an increase of droughts and floods,

more seasonal peaks in river flow, and a higher probability of stronger tropical storms. Countries in Sub-Saharan Africa, including Nigeria, are likely to suffer the most because of their geographical location, low incomes, and low institutional capacity, as well as their greater reliance on climate-sensitive renewable natural resources sectors like agriculture. The impacts of climate change on agriculture are projected to manifest through changes in land and water regimes, specifically, changes in the frequency and intensity of droughts, flooding, water shortages, worsening soil conditions, desertification, disease and pest outbreaks on crops and livestock. Adaptation to climate risks and change therefore is increasingly important in developing countries. Building up resilience to increasing climate variability is the most significant climate challenge facing all countries, including Nigeria. Countries will need to factor climate risks and climate change adaptation into their development planning, and consider the range of interventions that will increase their resilience to climate change (Eboh, 2009)

Ideally, democracy, in its different hues and stripes, denotes the fundamental recognition of popular sovereignty, equal opportunity for all, majority rule, representativeness, minority rights, right of choice between alternative programmes, popular consultation, civil liberty rights, consensus on fundamental issues, rule of law and constitutionalism, and more essentially periodic elections. Of all the variations of the concept such as participatory democracy, deliberative democracy and social democracy, "ecological democracy" is a term that has arisen among political scientists to critically examine the systematic weaknesses in the ability of liberal democracy to adequately deliver environmental protection. The question then is, if democ-

racy has failed to take greater hold in a period where both the resource and environmental contexts were relatively benign, how will it fare at a time of increasing resource squeeze, climate change and population growth? Despite the fact that democracy as a political system has not yet reached even a majority of the world's population, there is no other option but to seek to strengthen this political system for sustainable development and to manage the challenges thrown up by climate change.

Sociological Perspectives on Global Climate Change

In this paper, three sociological perspectives have been examined to interpret the causes, impact and cures of climate change.

The Political Economy Approach: According to Schnaiberg (1980), the political economy perspective is one of Sociology's most significant contributions to climate change research because it identifies the nexus between the economy and politics, at both global and national levels, as the triggers and potential mitigators of global climate change. For Schnaiberg (2008), building on the social theories of Foster (1999), Nagel, Dietz & Broadbent (2008) and Fischer-Kowalski & Haberl (2008), he argued that like all social scientific approaches, political economy research acknowledges that climate change is not merely rooted in planetary physical systems, often the main focus of natural scientists, politicians, and the general public, but that political economy analyses link carbon emissions and their effect on the global climate to economic and social organisation in modern industrial societies. Thus, global political economy research underscores the relationship among national economies, political organisations, resource extraction re-

gimes, and population demographics and their CO₂ (carbon dioxide) emissions. Political economy quantitative approaches examine cross-national data on national CO₂ emissions. They highlight differences among agrarian, lesser developed, and highly developed countries' metabolic profiles based on per capita consumption of materials and energy output. They also examine the implications of urbanisation, industrialisation, and the spread of consumer culture around the world as contributions to the global climate change situation. Environmental sociologists have examined the patterns and drivers of economic growth as they affect the environment, including cross-national research on resource use, social metabolic levels, and environmental impacts of industrial and industrialising economies. The political aspect of this approach can be found in many developing nations like Africa where there is a lack of policy frameworks that identify and address the causes, impacts and cures of climate change. Even where there are policies that identify the deleterious impacts of climate change on the socio-economic situation of these societies, these policies are either political statements or there are no concrete actions taken to limit the spread of greenhouse gases in such societies. Also, many governments have failed to truly discharge their supervisory functions as they look the other way or are unable to tame the activities of multi-national corporations, many of whom still engage in activities and operations that pollute and threaten the fragile ecosystems and environments where they are sited. Many of these companies just engage in product "greenwashing" which does nothing but make mere rhetoric concerning their supposedly eco-friendly products. Thus, rather than situating the blame of climate change within a strictly natural and physical science paradigm, the political econ-

omy perspective looks at the political and economic situations of society in interpreting this phenomenon.

The Human Ecology and Environmental Impact Perspectives:

Sociologists have applied theories from ecology to study the complex relationship between humans and their natural environment. The human ecology perspective underscores the socio-spatial dynamics of climate change and varied interactions humans have with their physical environments across spatial and temporal scales. Drawing on the work in geography and urban studies, sociologists have applied this “place-based approach” to research on migration, resource competition, and disaster relief (Betsill, 2000). This perspective provides evidence that while climate change is a global threat, its effects are experienced locally, and can better be understood when sociologists include data from humans’ biophysical environments. A major contribution by environmental sociology is modelling the social causes and consequences of environmental change. These modelling techniques are directly applicable to the study of global climate change. Environmental impact researchers have documented many of the pathways and obstacles to transitioning to a low carbon economy on both micro and macro levels. Areas for future research include assessments of carbon trading schemes and the impact of economic development on environmental change in the twenty-first century global system (Zahran, Brody, Vedlitz, Grover & Miller, 2008).

Thus, these three perspectives justify the position of this paper that climate change stems from anthropogenic causes and that economic factors and processes, the actions or inactions of political representatives, the

relationship between humans and their natural environment and environmental assessments indicate the causes, impacts and cures of climate change in the modern society.

Global Impact of Climate Change

As Bullard (2009) argues, the world’s poorest countries of the Global South and most vulnerable peoples will suffer the earliest and most damaging setbacks as a result of climate change, even though they have contributed least to the problem of global warming. However, he also identified the impact of climate change globally. According to him, scientists predict droughts, wildfires, and dust transported between continents to cause locally severe economic damage and substantial social and cultural disruption and possible political conflict—including North-South conflict. He specifically mentioned that the number of people forced to flee their homes because of extreme weather events is increasing globally. Over 2 billion people worldwide were affected by disasters in the last decade. In 2001, more than 170 million people were affected by disasters, 97 percent of which were climate-related. Bullard (2009) states that there are more “environmental refugees” (25 million) than “political refugees” (22 million) and opined that by 2010, the number of environmental refugees is expected to grow to 50 million and could reach as high as 150 million by 2050. Most of these refugees are uprooted by gradual environmental shifts such as desertification, diminishing water supplies, and rising sea levels. Also the costs of climate change have been on the rise since the 1990s due to disasters such as hurricanes, floods, and fires which caused over \$608 billion in economic losses worldwide. There has also been a decline in food production, making drought-prone regions especially vulnerable to food shortages and “food riots.” Regard-

ing the deterioration of health globally, Nagel, Dietz and Broadbent (2009) identified increased injuries and deaths from severe weather such as hurricanes, heat stress, cold stress (hypothermia), as well as increasing death rates and cardiovascular and respiratory disease related to aeroallergens and worsening air pollution caused by the higher concentration of ground-level ozone (smog) that accompanies higher temperatures. According to them, ground level ozone sends an estimated 53,000 persons to the hospital, 159,000 to the emergency room and triggers 6,200,000 asthma attacks each summer in the eastern half of the United States, while air pollution causes an estimated 50,000 to 120,000 premature deaths in the U.S. each year alone. Approximately 600,000 deaths occurred world-wide as a result of weather-related natural disasters in the 1990s; and some 95 percent of these were in poor countries.

Impact of Global Climate Change and Nigeria's Evolving Democracy

Nigeria's evolving democracy has been besieged by numerous problems ranging from corruption and poor value systems, ethnic violence and intolerance, masked elite rule and domination, resource misappropriation, misallocation and expropriation, political and election violence, an expensive democratic project, militarisation of government and subjugation of popular will and sustained tradition of human rights violation (Imhonopi and Urim, 2011). However, a silent challenge facing Nigeria's democratic experience and which is behind certain agitations such as resource control, correction of environmental pollution and degradation of many Nigerian towns and villages and the Niger Delta uprising, among others, is the issue of climate change. Over the past few years, Nigeria, like many other African

countries, has been beset by a lot of climate anomalies. Consequences of extreme climate events due to global warming have been so dramatic that there has been considerable and disturbing concern among various levels of government and peoples in the country. The variation in weather and climate has led to a lot of devastating consequences and effects in various parts of the country. These include flooding, desertification, erosion, drought, sea level rise, heat or cold stress, pests and diseases, erratic rainfall patterns, and land degradation (Ozor, 2009a). More specifically, the South-south geopolitical zone is mainly affected by sea level rise and deforestation-induced changes; the South-west zone also is affected by sea level rise and deforestation-induced changes; South-east by erosion, flooding, and land degradation; North-central by changes due to deforestation and overgrazing; Northeast by drought, desertification and heat stress; and Northwest also by drought, desertification and heat stress. Besides the effects on ecology and biodiversity, the above mentioned effects of climate change are having devastating impacts on many vulnerable communities in Nigeria such as farmers, pastoralists, foresters, fisher folks and hunters who are becoming environmental refugees in the country. The continued urbanisation and industrialisation of the country, requiring the indiscriminate felling of trees, bush burning and massive rural-urban drift, according to the political economy, human ecology and environmental impact perspectives, have put pressure on the environment, increasing the carbon economy and the release of greenhouse gases which have contributed to the negative effects of global warming in the country. Thus, lack of appropriate response from democratic institutions in Nigeria to address the impact of climate change which has resulted in the loss of farm lands, viable

occupations and employment for the people, lack of grazing land due to desertification, continuous death of livestock, poor standard of living and environmental/land degradation may explain the rise of the Niger Delta militants, the Boko Haram sect, and other ethnic agitations within the country. Thus, the evolving Nigeria's democracy is under threat unless the government and the political managers of the state swiftly respond by alleviating the adverse conditions many Nigerian peoples are subjected to. As research even has it, over 70% of Nigerians live below \$1 a day, while over 91% of Nigerians live below \$2 a day (Ozor, 2009a). This scenario is situated against the backdrop of a democracy that only favours the elite, and promotes the interests of the ruling and dominant class, while disfavours, disempowering and disenfranchising the citizens who elected them into government.

Other impacts of climate change on Nigeria's evolving democracy include the following:

Resource Crisis and Conflicts

Climate change leads to the continuing explosion in global demand for essential resources such as food, water and oil - coming just as the planet's ability to deliver many of these materials is weakening. According to Moss (2009), this scenario, in harness with the climate crisis, threatens to pose challenges to security of an order not previously faced in modern times. The death of more than 200,000 people in Dafur and displacement largely due to drought of around two million more may be seen as the world's first climate change war. For Taylor (2009), climate change and rising sea levels pose one of the biggest threats to security in the Pacific (as well as in Nigeria's

coastal areas) and may also spark a global conflict over energy reserves under melting Arctic ice. It will lead to an International race for undersea oil and gas deposits due to the melting of the Arctic Icecaps. Climate change will also lead to an increase in environmental refugees from vulnerable lowlands and Islands due to rising sea levels. Finally, it could also lead to more illegal immigration and fishing, bringing disputes over access to scarce food resources. Climate change is anticipated to increase conflicts as a result of struggles for resource use in Nigeria. Evidences abound in Nigeria especially for struggle over graze land and water bodies between the Fulani cattle rearers and the farming communities in Nigeria, for example, the Mutumbiu and Mambila highlands in Taraba State, and the Fufore community in Adamawa State (Ozor, 2009). These crises have led to several deaths of farmers and pastoralists in the region. Also, the drying of streams and rivers in some communities due to climate change ultimately lead to their search for water in neighbouring communities with its attendant man hour losses, propensity to trigger conflicts and hardships on the people. The situation could worsen for more millions of people as climate change alters the variability and quantity of available water. At the same time, the demand for water is increasing due to the country's growing population and its mounting aspirations. This situation triggers distributional conflicts and poses major challenges to water management systems in Nigeria. Nigeria will be hit in water stress because of its inadequate political and institutional framework necessary for the adaptation of water and crisis management systems. This situation could threaten the stability of Nigeria's evolving democracy, lead to the rise of armed conflicts, and generally worsen the security situation in the country.

Increasing Unemployment

With the diminishing resources, drying up of streams, lakes and rivers, the pollution and environmental degradation of arable farmlands, many agricultural and fishing communities will disappear, thus ballooning the unemployment market as more and more Nigerians at the local level would lose their jobs. These families may now be forced to depend on government grants, child support grants, etc. for their survival, due to the decline in the fishing and farming industries. In addition, the management of pollution, sanitation, waste disposal, water supply and public health, as well as provision of adequate infrastructure in urban areas, could become difficult and costly under changed climate conditions. For instance, a one-metre rise of the ocean will be tremendous in riverine environments in Nigeria. Nigeria's economic capital of Lagos could be under water disrupting economic activities and eroding the job potentials of many more citizens. Labour-intensive Nigerian sectors would suffer. Oil production in the Niger Delta and elsewhere would be impaired (Mannak, 2007). The fertile Niger Delta would be lost to the advancing sea and another 10,000 hectares of productive crop land would be subject to erosion and salinisation (Mannak, 2007). All these will affect the employment level in the country, breed social unrest, further predispose Nigerians to hunger, sicknesses, resource over-exploitation and other social vices such as conflicts and militancy and these may threaten Nigeria's democratic stability if the situation is not arrested.

Pauperisation of Many More Nigerians

According to the World Bank (2002), climate change is predicted to deepen poverty both directly and indirectly in developing countries. According to the report, the di-

rect impacts include: the loss of life, livelihoods, assets, infrastructure, etc. from climate extreme events. For example, following Hurricane Mitch in 1998, 165,000 people in Honduras fell below the poverty line. The poorest lost 18% of their assets; there was a 29% loss of crops and 20% of the hospitals and education centres were affected. On the other hand, the indirect effects are predicated on economic growth. Continuing climate change variation is predicted to alter the sectoral origins of growth, including the ability of the poor to engage in the non-farm sector, as well as increase inequality, and therefore to reduce the elasticity of growth (ERM, 2002). According to the Third Assessment Report of the IPCC in 2001 on the poverty impacts of climate change, the report confirmed that the poorest (countries and people) are most at risk and identified a range of poverty-related climate change impacts to include: reduction in crop yield, food insecurity, unemployment, income and economic stagnation, huge displacement of people from coastal and densely populated areas, exposure of millions of people to new health risks, especially from vector-based diseases like malaria and schistosomiasis, as well as water-borne diseases like cholera and dysentery, malnutrition, and susceptibility to desertification, declining soil fertility, and dependency on subsistence agriculture. Unless the managers of the Nigerian democratic structures are awake to their responsibilities and become pro-people in all their considerations and policies, the evolving democratic experience may give way to anarchy and popular uprising like we have seen happen in Tunisia, Egypt, Sudan, Yemen, Libya and Syria.

Health Crisis

There are reported incidences of an explosion of climate-related health crisis in many

Nigerian communities today. Health is closely linked to poverty, because poverty precludes most people from access to health care facilities. The aspects of health that will be exacerbated by climate change include; increased cases of cataracts (eye disease) in the northern parts of Nigeria due to low cloud cover and greater intensity of solar radiation; increased cases of malaria and typhoid due to increased rainfall and temperature in certain parts of the country; and increased cases of water-borne diseases such as cholera and dysentery due to urban flooding, and improper disposal of wastes. As a report had it, oil companies in Nigeria engage in gas flaring, as a 24 hour-a-day, 365 day-a-year practice, burning the associated gas that comes out of the ground when oil is extracted. Some of these flares have burned without cessation for 40 years. People live literally next door to the roaring, ground-level flares that leap as high as a several-story building and belch black clouds of toxic smoke in the middle of, or next door to, their villages. Gas flaring harms local health through emissions that have been linked to cancers, asthma, chronic bronchitis, blood disorders, and other diseases. These human health problems affect the people of the communities where oil companies operate, such as the Niger Delta, where 20 million people live with little or no health care access (JINN, 2010).

Crisis of Environmentally-Induced Migration

The effects of climate change have resulted in a new class of refugees called "environmental refugees." The drying up of water bodies, the unsuitability of arable farmlands for agricultural purposes, the food crises experienced in many communities and increase in heat stress have resulted

in a migration of people from such communities to especially urban centres in Nigeria. As WBGU (2007) reported, in Nigeria, the increase in drought, soil degradation and growing water scarcity in combination with high population growth, unstable institutions, poverty or a high level of dependency on agriculture means that there is a particularly significant risk of environmental migration occurring and increasing in scale (WBGU, 2007). The report predicts that this number of environmental migrants will substantially increase in future due to the impacts of climate change (WBGU, 2007). This movement continues to contribute to loss of their livelihoods, loss of social systems and values, loss of property and age-long acquired wealth, which could lead to injuries and sometimes death. At the transit and destination points, it might generate social and ethnic conflicts of different dimensions that could threaten the democratic stability, national security and peaceful coexistence of Nigerians. This situation is worsened where there are no effective and efficient emergency management services to take care of the displaced. In Nigeria, officials of such agencies have been accused of even diverting the goods and services meant for the people in trouble to other sources for their personal gains.

Mitigating Factors for Climate in Nigeria

Available records show that the greatest concentrations of CO₂ which mainly cause global warming are due to the burning of fossil fuels, gas flaring and deforestation. This shows that human activities are mainly responsible for climate change. It means then that measures to mitigate the effects/impacts of climate change will involve mainly legislative and technological approaches. Unfortunately, most developing countries lack the technological capabilities

to deal with this issue. Even when the bills are passed into law there are often implementation problems due to unnecessary bureaucracy.

In the case of Nigeria, mitigation measures should include the following:

1. There should be citizen education on the reduction of activities and actions that promote increased carbon emissions and that contribute to environmental unsustainability.
2. Citizen participation will be key to efforts targeted at mitigating anthropogenic factors that trigger and sustain the present climate crisis in place.
3. Citizens should be involved at all levels including village, community, local, state and federal government levels such that their contributions would mass up to reduce practices and activities that are not healthy for the environment.
4. It is important that Nigerian political leaders enlist international democracy support of developed economies who have successfully evolved effective climate change solutions for their countries. Such support could help in quickly addressing the impact of the crisis in the area of health, waste and water management, food shortages and environmental degradation.
5. Government's political will to attend to environmental crisis situations and problems is another important remedial factor to stemming the negative impacts of climate change in the country.
6. There should also be a creation of policies that promote a green economy and green democracy or what David Miliband calls "clean and effective" democracy (Parkin, 2008). The construction industry in Nigeria must align with global best practices that promote renewable energy utilisation for residential and commercial buildings and the economy and government must begin to embrace green initiatives in all their operations.
7. Green audit of government operations must be embarked on. Since government is the largest employer of labour and expends huge resources in its annual operations, adopting clean and green technologies and practices will not only reduce the expenditure of government, but it will also promote environmental sustainability, reduce climate-related health hazards, improve the ecosystem and make for sustainable resource renewal.
8. The political leadership needs to lead by example in the promotion and advocacy of green and clean technologies and actions that protect and replenish the environment such as a paperless economy, waste management and recycling, afforestation and electronic governance.
9. There is need to re-build and re-introduce effective rail transportation system in order to reduce the present massive dependence on long distance vehicles such as lorries, trucks and buses, which consume and release gases injurious to the environment.
10. The massive noise pollution, waste and carbon-related pollution from cars can be reduced via urban transportation through the introduction of car-free zones and urban mass transit systems in the cities.
11. Massive electrification of the entire country to reduce the use of generating sets and firewood burning will go a long way in promoting a low carbon economy. Attention should now be turned to renewable energy technologies like solar, wind, and hydro energy sources.

12. It is important for government to take a bold step towards eradicating the present illegal practices of gas flaring in oil fields in the Niger Delta. This can be achieved by gas re-injection and provision of very strict penalties to erring oil exploring firms.
13. Lastly, establishing a nation-wide programme of reforestation, tree planting, erection of wind breaks to create shelter belts in the northern areas will also go a long way in improving the environmental stability of many Nigerian communities, soil fertility, greater food production, reduction of environmentally-induced migration and consequently stability in the political system.

CONCLUSION AND RECOMMENDATIONS

This research has delved into what global climate change is and its impact on the evolving democracy in Nigeria. It portrayed climate change as change in climate which is attributed directly or indirectly to human activities that alter the composition of the global atmosphere and which are in addition to natural variability observed over comparable time periods (IPCC, 2007). Such changes have been attributed to the emission of gases known as greenhouse gases mainly; CO₂, CO, CH₄, N₂O, HFCs, PFCs, and SF₆ into the atmosphere. These gases trap the terrestrial radiations from the earth and re-radiate the heat back to earth, thereby leading to a general increase in temperature known as global warming. The paper further described the effects of climate change to include flooding, drought, erosion, desertification, sea level rise, heat and cold stress, pests and diseases, erratic rainfall pattern, among others. These effects will undoubtedly impact on Nigeria's evolving democracy and even threaten the coun-

try's peaceful co-existence through resource and armed conflicts, popular uprising and social insecurity. The impacts of climate change in Nigeria such as low agricultural productivity, food insecurity, resource conflicts, poverty, unemployment, environmentally-induced migration, health issues and livelihood problems are present challenges that need to be addressed by representatives of the country's democratic institutions.

Aside the solutions that have been advanced to mitigating the impact of climate change in Nigeria, this paper suggests the following recommendations:

1. A bill for the establishment of a National Climate Change Commission (NCCC) in Nigeria with the mandate to deal with all climate change issues should be passed by the legislature;
2. The commissioning of a National Benchmark Survey (NBS) to identify the remote and immediate causes of climate change, its effects, local knowledge and practices across our six geopolitical zones should be effected;
3. A National Adaptation Framework (NAF) for all the geopolitical zones in Nigeria which would include plans for resettlement of victims of environmentally-induced migration, resource conflicts, crime and violence and requests to developed countries for compensations/preferential supports for vulnerable countries that produce less of the GHGs but are mostly affected by its effects should be put in place;
4. There is an urgent need for the ban on gas flaring by the National Assembly and
5. Partnerships between governments and other stakeholders including NGOs, Community-Based Organisations, farm-

ers, the private sector, and local communities to ensure a win-win situation against climate risks should be initiated.

6. Lastly, the policy and practice of government should support green technologies and actions in both the public and private spheres. Environmentally-friendly equipment, machines, infrastructure, and technology that produce less of the GHGs, improvement in rail transport, use of bio-fuels, and energy saving devices and the adoption of biotechnology and nanotechnology should also be embraced.

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