

The Implications of Climate Change for Democratic Governance in Nigeria

Chuku Umezurike

Department of Political Science, University of Nigeria, Nsukka, Nigeria

Abstract: The ongoing global warming is another evidence of the low democratic impetus of contemporary global governance underscoring in particular the manner in which industrial development in the advanced countries is threatening (via the environment) human survival in the underdeveloped countries such as Nigeria. This is even all the more boosted by the ongoing neoliberal regimes across the globe. Even though, natural causes of the current global warming abound, the social causes or the anthropogenic aspects exist and have even been shown to be dominant. These latter aspects which have expanded since, the industrial revolution have involved the combustion of fossil fuels for industrial or domestic usages. They have also included biomass burning and the production of green house gases and aerosols which have affected the composition of the atmosphere. The failures of contemporary global governance in dealing with the causes, course and solutions to the ongoing global warming lie effectively with inadequate commitment of the advanced countries in climate change mitigation, especially as it borders on the developing countries. Scholarship has not only captured gargantuan failures in overall governance on the part of the developing countries but also similar inadequacies in the democratic governance of the environment in these climatic vulnerable countries especially under the aegis of neoliberal political economy regimes. These inadequacies which are numerous have generally incapacitated the prospects of mobilizing the peoples of underdeveloped countries for climate change mitigation. In the light of all these, the thesis of the present study is that low global democratic governance of the ongoing climate change has led to high vulnerability of Nigeria to this climate change manifesting in such specific aspects as weak poverty alleviation; low electoral democracy and the party system and growing authoritarianism in the public policy process.

Key words: Governance, dominant, atmosphere, production, revolution, global warming

INTRODUCTION

The thrust of this study is to explain that even though, the anthropogenic causes of the ongoing global warming easily underscore a high degree to which the globalized character of contemporary production system has infused environmental disasters, especially for the underdeveloped countries, the low democratic impetus of contemporary global governance has continued to undermine the recovery of such poor countries as Nigeria from the crisis. As the study notes, climate change mitigation in Nigeria is strongly undermined first by the low democratic impetus of contemporary global governance and second by the equally related domestic inhibitions orchestrated by the same global forces operating mainly through the scuttling of the struggles of the domestic social forces in Nigeria.

Invariably therefore, this study advances the literature on the interactions of the environment and the socio-political to the specific aspect of the vicious circle between environmental degradation and failures in democratic governance. The study focuses on the

interactions between the ongoing global climate change and the various challenges to democratic governance in Nigeria including growing poverty and the vulnerable; declines in electoral democracy and the party system and the increasing asphyxiation of the democratic content of the public policy process. Enlivening these aspects of democratic governance is critical primarily because they have the capacity for engendering adequate mobilization of Nigerian people for climate change mitigation. For sure, high propensities of socioeconomic and political mobilization are central to any meaningful climate change mitigation.

To be clear, Nigeria, like so many other countries has been a recipient of the problems of the ongoing climate change in the world. Indeed, the IPCC, 1996 has noted that Africa is the most vulnerable region to climate change due to the extreme poverty of many Africans, frequent natural disasters such as droughts and floods and agricultural systems heavily dependent on rainfall. It is in due regard to these realities that Okafor and Unachukwu documents as follows:

Nigeria is one of the countries expected to be most affected by the impacts of climate change through the sea level rising along its 800 km long coast line. The UNCCC in Nairobi has sounded a warning about the menace suggesting that one day the city of Lagos (about 7-14 inhabitants) might sink completely into the sea. Also, in Egor and Ogida communities in Edo state, several houses are reported to have been abandoned by their owners due to floods in Okafor and Unachukwu

In the same study, Okafor and Unachukwu provide in some details the impacts on the environment and human health in Nigeria of the ongoing climate change to include the following: Coastal erosion and floods; change in rainfall pattern, heat waves, drought and desertification, pests and infectious diseases. For the avoidance of doubt, the two ecosystems in Nigeria namely the mangroves and rainforests on the Atlantic coast in the South of the country and the Savannah which borders the Sahara in the Northern part have been significantly impacted upon by the current global warming. Even though, there has been a consistent trend of declining rainfall in the Sahel since the 1960's, the recent flooding in some parts of this Northern region has not escaped due recognition in scholarship. This is evident in a study entitled climate change and flooding in Northern Nigeria. An examination of rainfall trends over the region by Nwagbara *et al.* (2010). Through a scientific analysis, it has been thus shown that climate change in Northern Nigeria has also manifested in increasing rainfall totals generating floods as rivers, basins and dams and other water control structures (which) fail to contain increased water occasioned by increased rainfall (N). Evidently therefore and in agreement with Meyer, the manifestations of climate change are never the same globally, since different regions are differently affected.

In the light of study on, the problem this study addresses is that even though scholarship has adequately addressed the significant forms in which environmental crisis including the ongoing climate change or global warming has been orchestrated by human social engagements and the reverse forms in which these apparent natural crisis has exacerbated socio-political crisis as well a consistent focus on the specific implications for democratic governance is lacking. Yet issues of democratic governance are critical for the management of the crisis. In exploring the vicious circles that characterize the challenges of the ongoing global warming on democratic governance in Nigeria, the study thus focuses on the environmental challenges to poverty

alleviation in Nigeria on the negative implications of the crisis for elections and the party system and finally on the reverberations in the public policy process in Nigeria. The thrust of emphasizing the implications of environmental crisis for social and in particular crisis of democratic governance which have been made in this study is significant primarily because it directs attention to the mode of solving the crisis. For in actual fact, it is at the realm of democratic governance that solutions to the problem are found. It is political rule that mobilizes both human and material resources of society adequate enough for solving such manner of crisis as are found in the environment. The propensities of solutions are found at both the preventive and curative levels. At these two levels, adequate democratic governance is imperative.

Conceptual clarification: The two principal concepts in use in this study need to be explained. These include; climate change or global warming and democratic governance.

Climate change or global warming: Climate change has been used synonymously with global warming or the greenhouse effect, especially because this global warming has been responsible for large scale climatic changes accompanied particularly by the rising of sea level through melting the polar icecaps. Climate change has been defined as:

A phenomenon whereby solar radiation that has reflected back off the surface of the earth remains trapped at atmospheric levels due to the build-up of carbon dioxide and other greenhouse gasses rather than being emitted back into space. The effect of this is the warming of the global atmosphere (it) is a long-standing phenomenon as the mix of the various gases that make up the earth's atmosphere has changed over long periods of time so, average global temperatures have fluctuated. Global warming has received increasing political attention over the past 30 years having constituted one of the key themes in the rise of green politics over the same period. The increasing political salience resulted in an intergovernmental meeting in Kyoto in 1997 at which 38 industrialized countries signed up to the Kyoto protocol (which) finally came into force in 2005 (McLean and McMillan, 2009)

From the angle of the political, it is important to note that the industrialized nations that signed-up to the Kyoto protocol were required to reduce their atmospheric emissions of carbon dioxide by an average of 5.2% from

1990 levels by 2012. As McLean and McMillan (2009) has further observed, this is well <60% target that scientists working on climate change claimed to be necessary to prevent further global warming (McLean and McMillan, 2009). So far, the United Nations Framework Convention for Climate Change (UNCCC) has provided the framework under which more recent international meetings on climate change have been held.

Democratic governance: Governance simply depicts the act of governing or the manner in which it is carried out. But more fundamentally, the practice of governance provokes the extent of representation of the interest of the governed in the processes of political rule. It does portray that governments are not unilaterally defined in terms of the institutions they purvey but more broadly in terms of the degrees of significance of the powers of the people over whom governmental authorities are exercised. There are many forms of governance even though democratic governance has remained the key, especially in view of its efficacy to political rule. In other words, political rule that fails to create significant impetus for democratic governance most often encounter problems. Four types of governance have being enumerated.

These include; commandist governance, one-party (movement) governance, multi-party oligarchic governance and popular participatory governance (Nnoli, 2003). Even though, there are some relevant aspects of some of these, popular participatory governance is the fulcrum of democratic governance. For in actual fact, democracy suggests popular power. All the factors that impinge negatively on popular power including agonizing poverty and income inequalities; limitations on elections and the party system; human right abuses and authoritarian trends in the public policy process have been duly considered here as the anathema of democratic governance in Nigeria.

The implications of environmental crisis on a number of these have been analysed in this study. During the Thatcherite era of state divestiture in the United Kingdom in the 1990's, the study of governance was seen to encompass the regulatory framework, delegated authority and non-governmental provision of services-covering areas which the traditional focus on Westminster politics ignored (McLean and McMillan, 2009).

Invariably, this era of politics in the UK compelled attention of governance to reflect on non-governmental networks which influence the delivery of public goods both positively and negatively. This approach engages with aspects of civil society, community action, social capital, charity and corruption

(McLean and McMillan, 2009). The explanation lies in the fact that Thatcherite deregulations enormously challenged liberal democratic practices of the UK at the time.

Literature review: Two aspects of the vast literature on the current climatic change or global warming in particular and the overall crisis of the environment in general have been examined in this study. The first are those studies that portray the crisis, especially as it impinges on the Nigerian society in terms of its historical emergence as crisis of the Nigerian environment to which scholarship has paid some attention. The second strand of the literature are those studies that have concerned themselves with the human aspects of the crisis in Nigeria, especially in relation to the causes, course and solutions. Invariably, the present study locates its bearing from these two strands of the literature noted above. In the first place, it re-enacts the manner in which these historically conflagrating aspects of environmental challenges are increasingly transforming into political crisis in such countries as Nigeria (Efe, 2010).

Also, a reasonable volume of studies in the same collection has focussed on the manner in which this environmental crisis has been advancing negative implications to certain aspects of socioeconomic and political conditions in the country. The aspect of solution popularly discussed in the literature as climate change mitigation has received due attention in Okafor and Unachukwu. But the specific role of political rule in the angle of democratic governance in this climate change mitigation has not been satisfactorily discussed. Thus, this part of the literature will be enhanced here through an allusion to the practices of socio-political mobilization founded in democratic governance with significant implications for solving problems of the environment including the ongoing climate change. In doing this, the review will draw some attention from Umezurike amongst others.

A general comment that can be made of much of these studies is that they are quite handy; being chapters of a Conference Proceeding prepared by the Department of Geography of the University of Nigeria and edited by R.N.C. Anyadike, I.A. Madu and C.K. Ajaero. Not only are these studies current but they have specifically focussed on Nigeria and spread through a wide coverage of the country's environmental and other socioeconomic experiences.

In addition to this, the conference from which this proceeding emerged had been multidisciplinary in orientation. Even though, no specific chapter had been contributed from a political scientist, the equally important

social science diversity of the chapters helped to remedy the dominance of studies with the background of the discipline of Geography. Largely adjoining these studies (Nzeadibe *et al.*, 2011) with the title: Climate Change Awareness and Adaptation in the Niger Delta Region of Nigeria. The historical factor of climate change often point out that:

Climate change is a function of the effects of increased carbon dioxide and other Greenhouse Gases (GHGs) such as methane, water vapour, nitrous oxide and chlorofluorocarbons into the atmosphere, especially from human activities such as increased combustion of fossil fuels, gas flaring, urbanization, industrialization, deforestation, etc. These GHGs concentrate in the atmosphere where they trap infrared radiation that would otherwise be radiated back onto the upper atmosphere and reradiate it earthward thus promoting atmospheric warming

The historical facets of climate change have been shown to have involved environmental occurrences such as continental drift, suggesting that the continents as researchers know them today began to gradually drift apart sometime in the past and volcanic eruptions considered a natural occurrence in which large volumes of sulphur dioxide, water vapour, dust and ash are discharged into the atmosphere. These occurrences have also included the changes in the tilting of the earth which have affected the severity of the seasons including Winter and Summer becoming colder and warmer, respectively. Included also in these historically natural aspects have been ocean currents which move vast amounts of heat across the planet. As will be shown later in this review, these historical natural aspects of climate change have been set apart from the anthropogenic forms. As Efe (2010) notes:

Global change in climate from early climatic history of the world shows that during the last 55 million years, the earth has been cooling and that the last million years have been alternating of glacial and interglacial as result of climate change. This is as a result of increased temperature (Efe, 2010)

Analysts have duly associated the latter events of climate change to anthropogenic forces which as have been shown have predominated. For sure, industrialization in addition to other aspects of human impartation on nature have culminated in exacerbating the social causes and course of the contemporaneous global warming. This has been depicted thus:

Since, industrial revolution, emissions of Green House Gases (GHGs) and in particular carbon dioxide have significantly increased and continue to increase. This is primarily due to increased burning of fossil fuels from both industries, transportation activities etc. As a result, heat is been trapped in the atmosphere and the earth's global mean surface temperature has been on increase and rise in sea level. In Africa, study has shown that at least an annual mean warming of approximately 0.05°C per decade is believed to have occurred since, 1990, equivalent to approximately 0.5°C over the period

The analysis of the impact of climate change on the socioeconomic development of Nigeria is instructive enough. To begin with, it has been acknowledged that the growth in the size of industrial locations in Nigeria as in many other African countries has the implications of increasing the degree of contributions to the current climate change.

The location of industries in Nigeria became most fashionable since, the inauguration of Import Substitution Industries in the post Second World War era of contemporary global development. Incidentally, the concomitant inauguration of neoliberal reforms since the mid 1980's has led to a large scale closure of these industries as foreign importation of industrial manufactures including even foods now hold sway. Accordingly, the industrial emissions of the advanced countries have continued to pose the greatest threats of environmental crisis. But the negative implications of the ongoing climate change to national development in Nigeria have not escaped analysis. Indeed:

As a developing nation, Nigeria is sensitive to the effects of climate change because of its dependence on climate sensitive resources. It is obvious that climate change will have a significant effect on all aspects of Nigerian society, affecting each and every socioeconomic sector. Its effects which are already visible in Nigeria will threaten each and every development achievement accrued by the country over the past four and half decades. It is becoming clear that realization of the Millennium Development Goals (MDGs) in Nigeria can seriously be undermined by climate change. There will be more extreme events such as droughts and floods and the seasonal patterns will shift. Food supplies, public health and people's livelihood are all being damaged and undermined

To be clear, the negative impact of the environment to the Nigerian society has been analysed in such areas as human health, human settlement, coastal zone, tourism and recreational resources, water resources, agricultural and land resources, energy, industrial and commercial activities.

Discourses on mitigation are legion. Okafor and Unachukwu for instance, dwelt on management practices which include staff training, energy audits and benchmarking, energy efficiency measures using high energy efficient equipment and operating procedures and maintenance measures to mitigate GHG emissions. As has been noted earlier in the review, the area of intervention of the present study is properly situated in the gap in the literature in finding solutions to climate change or what has been referred to as climate change mitigation. In the main, there is a concern with the projection of analysis on the interface between environmental crisis including the ongoing global warming and the crisis of democratic governance in Nigeria.

Adequate democratic governance for coordinating and mobilizing resources for solving the ongoing threat of the environment is required. For as has been noted in this study, this environmental challenge has been exacerbating the problems in the areas of poverty alleviation, elections and the party system and also in the aspect of growing authoritarianism in the public policy process.

In an earlier study by the present researcher, it has been shown that there has generally been a decline in democratic governance in Nigeria due to the failures in the constitution of a popular national state. These failures and the concomitant declines in popular power in Nigeria has been manifesting in the declines in human rights and shrinking of the democratic space, failures in the ongoing poverty alleviation programme especially the activities of the current National Poverty Eradication Programme to properly coordinate and intervene in poverty alleviation; declines in the prospectuses of the Nigerian state for resolving conflicts and violence including ethno-religious conflicts and violence in the North and the conflicts and violence over the environment in the Niger Delta region. Also, neoliberal reforms since the mid 1980's have been stressing electoral democracy and the party system so much so that there has been a contradiction between the partial liberalization of the political environment and the ongoing thrust towards one-party rule.

In the same vein, the public policy process in Nigeria has been facing the threat of authoritarianism. Because solving the inadequacy of democracy has historically required the persistent pursuit of it, there is an urgent

need to strengthen democratic governance in Nigeria, especially in the light of the ongoing challenges posed by the environment.

MATERIALS AND METHODS

Two hypotheses have been formulated for this study. They include:

- The limited democratic character of contemporary global governance which has been reinforced by low quality of democracy in Nigeria orchestrated by the forces of globalization has conjunctively resulted in low climate change mitigation in the country
- The high vulnerability of Nigeria to the ongoing global warming has equally manifested in the failures in democratic governance in Nigeria, especially in those requisite areas as poverty alleviation, electoral democracy and the party system as well as the public policy process in the country

The low democratic character of contemporary global governance has been established by underscoring the limited roles of advanced countries including, especially the high income OECD countries and the international organizations which they foster in climate change mitigation. The infusion of low orthochtonous values of democracy on Nigeria by the same forces of globalization has however been established by underscoring the confrontational and antagonistic relationships between the forces of globalization including the roles of the IMF/IBRD, foreign aid amongst others on the one hand and the domestic forces of democratization in Nigeria including the working class, the peasantry and the petty bourgeoisie in Nigeria on the other hand. This has been more elaborately discussed in previous studies.

It has also been explained that low orthochtonous values of democratic governance in Nigeria has been further compounded by neoliberal economic reforms which began to be implemented in the country since, the mid 1980's. The 2nd part of the study however, explored the manner in which vulnerability has been high in Nigeria in a number of aspects of democratic governance including poverty alleviation, elections and the party and in the public policy process. Limited availability of data greatly constrained the test of these hypotheses. However, logical deductions have been mainly used. The study utilized secondary data which have been put into a figure and some tabular presentations. In some cases, references have been drawn from earlier studies to substantiate the scientific quality of analysis.

Table 1: A matrix showing the associations of a global conjuncture and climate change mitigation in Nigeria

Global conjuncture	Dimensions of climate change mitigation in Nigeria						
	Industrial sector mitigation*			Political remedies			
	Improving management tools, eg., staff training, energy audit, etc.	Energy efficiency measures, eg., equipment replacement, automatic combustion control etc.	Improving operational procedures and maintenance	Organizing for climate change awareness	Mobilizing against drought	Mobilizing against flooding	Mobilizing against desertification
Infusion by globalization of low orthochtonous value of democracy in Nigeria as in the other African countries	Improvement of management tools is undermined, here by the limited domestication of the bureaucracy for managing industrial mitigation in Nigeria	This efficiency is incapacitated by the low domestication of foreign technology which has undergirded industrial development in Nigeria	Operational procedures and maintenance have continued to lag due to the alien nature of the industrial sector in Nigeria	This is an enduring measure but requires a vibrant political environment in the country. Prospective partisanship politics in which environmental issues are factored in would create higher prospectus	Requires the encouragement of traditional and other extant measures against drought in the various parts of Nigeria that are affected	Requires the encouragement of traditional and extant practices of control within the population. The onus actually lies on political rule to mobilize the local population to these various remedies	Governments in Nigeria require to sensitize local population on the extant measures of dealing with the trend including adaptation
Limitations on the democratic content of global governance	The limited democratic content of global governance of climate change mitigation has meant that there is inadequate support for management development from advanced countries	Low democratic content has led to the perpetuation of technological dumping, exportation of obsolete technology and industrial waste from the advanced countries to Nigeria	Here, advanced countries have hardly encouraged these improvements despite the fact that they are often patented	Leads to a higher sensitization of the Nigerian society about the net benefit losses of Nigeria to the advanced countries in global warming	Sensitizes the local population about the low commitment of the advanced countries to this political remedy, especially because such remedial projects as dams and irrigations are capital intensive	The Nigerian state requires to solicit support from foreign countries, international organizations and foreign countries on adequate remedial measures including afforestation, construction of relief channels and reservoirs, water meadow areas amongst others	The capital intensiveness of remedial measures require extensive reach of the international community over the matter, especially as the Sahel region already show evidence of this hazard

*The various aspects of industrial sector mitigation measures were got from Okafor; Need for Climate Change Mitigation in Nigeria Through Energy Efficiency Practices in Industrial Sector in Anyadike, R.N.C., Madu, I.A. and Ajaero, C.K. (eds), Climate Change and the Nigerian Environment, Conference Proceedings, Department of Geography, University of Nigeria, Nsukka (Data from various sources including Mayhew (2009), Oxford Dictionary of Geography, Oxford, University of Oxford Press

Conjuncture of global inhibitions to climate change mitigation in Nigeria: Contemporary globalization has continued to shortchange Africa in two major respects; 1st in the manner in which it has continued to undermine the orthochtonous value of democracy in the African countries and 2nd in the manner in which global governance itself is undermined, especially by the roles of the advanced countries. The resultant effect of this global conjuncture is that African peoples have been facing about the greatest democratic denials both by the state in Africa as well as the rest of the global community. Accordingly, this section elucidates on the nature of implications that have been produced on climate change mitigation in Nigeria by these intertwined global constraints. Table 1 shows a matrix of the association between a global conjuncture which depicts a low orthochtonous value of democracy and limitations in

the democratic content of global governance on the one hand and failures in climate change mitigation in Nigeria on the other hand.

In Umezurike, extensive discussions of how the forces of globalization have antagonized the democratic struggles of the domestic social forces in Nigeria including the Nigerian peasantry, the working class and the Nigerian petty bourgeoisie. This antagonism has been limiting the constitution of a popular national state in Nigeria. Democratic practices in Nigeria have merely subsisted in the foisting of institutions which have remained for the greater part alien to the population. For half a century of political independence, Nigerian democracy has least afforded proper conduct of the rule of law, accountability, participation, competition, equality, responsiveness and those basic freedoms which underscore the rudiments of liberal democracy that is

assumed to be in practice. Neoliberal reforms, especially via the deregulations of the Nigerian political economy have even worsened the situation as genuine democratization of the Nigerian society has been on the decline with these reforms. This is however to be handled in the later part of this study. As has been clearly shown in Table 1, the failures of Nigeria's democracy to advance popular power have expectedly provided negative implications for industrial sector climate change mitigation and for providing other relevant political remedies for the ongoing global warming in Nigeria. The core of the matter here is that adequate democratic environment is required for the mobilization of human and material resources adequate enough for combating the ongoing global warming. On the second aspect of the global conjuncture shown in Table 1, it is important to point out in the immediate that enough attention has not been shown, especially by the advanced countries and international organizations and agencies all of which show the limited democratization of global governance of climate change generally.

It was in 2005 that the Kyoto protocol on climate change finally came into force after it had been signed up by 38 industrialized countries in 1997 on the agreement that these nations will reduce their atmospheric emissions of carbon dioxide by an average of 5.2% from 1990 levels by 2012. But this is well below the 60% target that scientists working on climate change claimed to be necessary to prevent further global warming (McLean and McMillan, 2009). Even before the ratification in 2005 in the period from 1997-2004 global carbon dioxide emissions increased by around 16% (McLean and McMillan, 2009).

Aspects of Nigeria's vulnerability to climate change:

Vulnerability has simply been defined by the Intergovernmental Panel on Climate Change (IPCC) in its second assessment report as the extent to which climate change may damage or harm a system. But vulnerability has also been more elaborately defined as:

The extent to which a natural or social system is susceptible to sustaining damage from climate change and is a function of the magnitude of climate change, the sensitivity of the system to changes in climate and the ability to adapt the system to changes in climate. Hence, a highly vulnerable system is one that is highly sensitive to modest changes in climate and one for which the ability to adapt is severely constrained (IPCC: 2000 in Ajaero *et al.*, 2010)

The aspects of vulnerabilities to climate change in Nigeria being considered here are socio-political. These

include: Poverty alleviation; elections and the party system and the public policy process. All of these are at the core of democratic governance in Nigeria. But they have been selected primarily because they are about the most stressed areas in Nigeria's neoliberal political economy reforms.

Intractability of poverty alleviation in Nigeria as a challenge of the ongoing global warming:

Poverty alleviation in Nigeria is highly vulnerable to the ongoing climate change. This association is particularly because Nigeria is highly threatened by the current global warming and yet its population largely depends on peasant agriculture which is mostly affected by weather variability. Emeribe and Ikejiofor have explored the interactions between certain aspects of climate change and failures in poverty eradication in Nigeria. For instance, it is noted that increased temperature and changes in precipitation reduces agricultural activities and natural resources with negative implications for the GDP. This trend leads to reduction in trade, economic growth and stresses the efforts at poverty eradication. The researchers also explained that changes in precipitation, flood and variability lead to greater water stress which reduces industrial output and trade with the ultimate implication in reduced productivity and growth in poverty incidence. Equally, the researchers explained that increased incidence of water related disaster leads to damage of infrastructure with implications for declining productivity public expenditures; all of which reduces the efficacy of poverty eradication. Also for Emeribe and Ikejiofor, temperature, water and vegetation changes lead to the rise in diseases, thus enhancing poverty and income inequality and other related vulnerabilities.

But as has been noted in previous researches, poverty alleviation is both domestic and extra-territorial. The first indicates the thrust through which political rule in Nigeria has sought to reduce absolute and relative poverty incidences amongst the domestic population through various public policy measures. The extra-territorial dimension on the other hand has involved the roles of foreign countries, (such as those of the OECD), international organizations and agencies (including the UN for instance) in confronting poverty and vulnerability in such countries as Nigeria. Interestingly, the extra-territorial dimension of poverty alleviation has been rife because it has been proficient for stabilizing the global environment of contemporary capitalist production system. The inequalities in this global system have already consigned some countries of the world such as Nigeria to poverty. For instance, while

the Human Development Index (for 2010) of high income OECD countries stand at 0.950 that of sub-Saharan Africa is a meagre 0.495. Nigeria is classified under the low sub-Saharan Africa group with a HDI of 0.499. Prior to the inauguration of the National Poverty Eradication Programme, NAPEP in Nigeria's Fourth Republic, the extant measures for poverty alleviation in Nigeria have included the following:

- Rural development and agricultural productivity
- Infrastructural provisions and welfare services
- Local governance including extra-ministerial agencies and institutions
- Private sector including Banking and Related Credit Systems

While these measures have still continued, the NAPEP was established in 2001 to coordinate as well as intervene in Poverty Alleviation in Nigeria's neoliberal era. As observed:

Even though, the economy witnessed a modest average growth rate of 5.7% between 1999 and 2006, the high inflationary rate (which grew from 0.2 in 1999 to 23.8 in 2003 and 11.6 in 2005) coupled with minimal increases in industrial utilization capacities meant that in real terms, economic conditions still remained harsh to much of the Nigerian population. Moreover, while the economy still depended on agriculture and petroleum earnings, the former is yet to be revolutionalized as to coagulate effectively with industrial development. Too, petroleum earnings have depended largely on foreign technology for explorations, exploitation and even marketing. Thus, the contributions of 43.45 and 42.14% by the agricultural sector in 1999 and 2002, respectively and 24.45 and 24.33% in 1999 and 2005, respectively of the petroleum sector still have been clear proofs of the issues raised

NAPEP had been inaugurated by the Obasanjo presidency against the backdrop of astronomically rising poverty levels under the deregulations of the Nigerian political economy which has been the core of the ongoing neoliberal reforms. Table 1 shows the poverty trend over the period and some comments on the levels of vulnerability to poverty alleviation in Nigeria.

Despite all the measures geared towards alleviating poverty in Nigeria as have been shown before, poverty levels in the country are yet to be abated. Table 2 shows that national poverty levels had risen from 27.2% in 1980 to 65.6% in 1996 and only fell slightly to 54.4% in 2004. Table 2 also shows that similar trend had been maintained

for both the urban and rural populations of Nigeria. But poverty has been more rural than urban in the country. And on regional basis, the zones in the Northern part of Nigeria have been shown in the table to have experienced higher poverty levels than those of the Southern parts of the country. Families of large sizes such as 20+ and of lower educational levels such as no education at all and those with primary educational levels have also been shown in Table 1 above to be poorer.

Table 3 shows the revenue allocation to the ecological fund which even though not as robust as should be expected has continued to be a drain to the nation. The ecological fund is certain proportion of oil revenue set aside to tackle environmental problems and emergencies in Nigeria. From Table 2, it is clear enough that expenditures on environmental disasters that have accompanied the climate change mitigation in Nigeria have been heavy.

For sure, the nature of the association between poverty and vulnerability to the ongoing global warming has been clearly implicated in Table 2. Climate change vulnerability is certainly higher with rural than urban people in Nigeria; it has equally been so with Nigerians who inhabit the Sahel region where drought and desertification have been massive than with Southern dwellers who have been relatively more advantaged in terms of engagements in the predominantly small-scale agricultural practices. Vulnerability to climate change is also expectedly higher with large-size families than with smaller ones in the same manner as there has been higher vulnerability with Nigerians of lower educational attainments. The social character of climate change vulnerability all too well show that climate change mitigations can also be profusely social and in practical terms political.

Shortchanging of elections and the party system as a challenge of global warming in Nigeria: The ongoing global warming has challenged democratic governance, especially in the directions of failures in elections and the party system in an interesting manner. In the main, electoral democracy and the party system both of which nourish partisanship politics in Nigeria are at the core of the most meaningful thrust of organizing the Nigerian society. For the avoidance of doubt, proper organization of the production lives of the Nigerian society by the Nigerian state including in particular the aspect of mobilizing them in confrontation of climate change has been noted to be critical to climate change mitigation and solving all manner of vulnerability. In this study, advances to demonstrate how the failures in electoral democracy and the party system in Nigeria have been

Table 2: Spread and trend in poverty levels in Nigeria for selected years in percentages

Levels	1980	1985	1992	1996	2004	Level of vulnerability to poverty
National	27.2	46.3	42.7	65.6	54.4	High vulnerability
Urban	17.2	37.8	37.5	58.2	43.2	Lower vulnerability
Rural	28.3	51.4	46.0	69.3	63.3	Higher vulnerability
Zone						
South South	13.2	45.7	40.6	58.2	35.1	Higher vulnerability due to environmental degradation
South East	12.9	45.7	40.8	58.2	35.1	Lower vulnerability
South West	13.4	38.6	43.1	60.9	43.0	Lower vulnerability
North Central	32.2	50.8	46.0	64.7	67.0	Higher vulnerability
North East	35.6	54.9	54.0	70.1	72.2	Higher vulnerability
North West	37.7	52.1	36.5	77.2	71.2	Higher vulnerability
Size of household						
0-1	0.2	9.7	2.9	13.1	12.6	Lower vulnerability
2-4	8.8	19.3	19.5	51.5	39.3	Lower vulnerability
5-9	30.0	50.6	45.4	74.8	57.9	Moderately vulnerable
10-20	51.0	71.3	66.1	88.5	73.3	Higher vulnerable
20+	80.9	74.9	93.3	93.6	90.7	Highly vulnerable
Educational level of household head						
No education	30.2	51.3	46.4	72.6	68.7	Higher vulnerability
Primary	21.3	40.6	43.3	54.4	48.7	Higher vulnerability
Secondary	7.6	27.2	30.3	52.0	44.3	Lower vulnerability
Higher than secondary	24.3	24.2	25.8	49.2	26.3	Lower vulnerability

National Bureau of Statistics, Nigeria

Table 3: Revenue allocation to the ecological fund in Nigeria, 1998-2006

Years	Amount (₦ billion)	Percentages
1998	4.858	5.97
1999	9.125	11.22
2000	21.021	25.85
2001	25.491	31.35
2002	2.711	3.33
2003	0.000	0.00
2004	18.100	22.28
2005	19.234	20.05
2006	18.428	21.22
Total	81.306	100.00

CBN, Statistical Bulletin, 2003; CBN, Annual Report and Statement of Account for 2003-2006 in Adebimpe (2011), Climate Change Related Disasters and Vulnerability: An Appraisal of the Nigerian Policy on Environment, Environmental Research Journal

significantly accountable for high vulnerability of Nigeria to the ongoing global warming. The end will leave no one in doubt that high proficiency in these aspects of democratic governance will certainly create higher impetus for solving all manner of climate change vulnerability including even industrial sector mitigation of climate change. To begin with the first and as Umezunike observed:

The infusion of electoral democracy in Nigeria took a substantial but inchoate origins in the colonial constitutional practices especially from the Clifford Constitution of 1922 in which only three Nigerians were elected into the then Legislative Council in the ratio of two from Lagos and one from Calabar. Modest increases in representation were only witnessed with the Richard Constitution of 1946. But the electoral principle became much more ramified at political independence

Critical issues confronting the Nigerian society at the time including issues of climate change certainly did not attract much attention as the colonial masters had been more interested in subjugating and exploiting the local population. Indeed, representative government was not even strongly encouraged at the time. In any case, the emergent electoral democracy in Nigeria came under stress a few years after political independence in 1960:

The coincidence of this post-independent crisis with the reforms of Nigerianization is not fortuitous nonetheless. For in actual fact, these economic reforms had conformed to the character of ethnic dominated struggles of the Nigerian petty bourgeoisie. While the two regions of the South supported Nigerianization in particular, Northern elites had united around a regional project namely Northernization

Invariably, the dissipation of petty bourgeois politics in Nigeria on ethno-religious crisis orchestrated the *raison d'être* for military intervention in politics and indeed for what has characteristically become a political history of institutional instability and high personnel turn-over in Nigeria. A condition in which the political process addressed very minute aspects of social life. As the global conjuncture made neoliberal economic reforms imperative to national development in Nigeria, institutional bend to military governance in the country became a *fait accompli*. At the earliest stages of these neoliberal reforms, there had been series of military coups and military transfer of power through some of these coups. As has been explained:

The structural diversity of SAP and the agonies it wrought on all social forces also attracted gargantuan social resistance in the country. The military regime that husbanded it led by a populist general, Ibrahim Babangida became even more disparaged and after series of popular uprising including the 1989 anti-SAP riot was forced out of office. The failure of the transition to elected government under Babangida created a vacuum which was filled by an appointed interim regime led by Chief Ernest Shonekan in 1993. General Sani Abacha led another military coup d'état which overthrew Chief Shonekan. Popular resistance against the Nigerian military became all the more heightened under General Abacha

When General Abacha died in office in 1998, he had been succeeded by General Abdulsalam Abubakar who held the first election of Nigeria's fourth republic in 1999. Since, then a total of four general elections have been held in this republic including 1999, 2003, 2007 and 2011 all of which have been accompanied by successful transfer of political offices from one elected government to another. Notwithstanding these, Nigeria's fourth republic has been shown to be incapacitated in matters of democracy.

This era has been characterized by elite consensus; limitations on human rights and shrinking of the democratic space; incapacitation of the Nigerian state from resolving social conflicts and violence and growing authoritarian trends in governance. Neither the military nor these governments of the fourth republic have addressed issues of the environment quite profusely. In the same manner as elections, the party system in Nigeria has been flawed.

The concern with the party system is that political parties all over the world have provided the highest impetus for mobilizing the people. The inadequacies of political parties in Nigeria for carrying out these functions have invariably underscored the high vulnerability to climate change.

Political parties in Nigeria have been mostly concerned with ethno-religious mobilization rather than effective and more efficient confrontation of environmental disasters. The lesser challenges which have been raised against the Peoples Democratic Party in Nigeria's Fourth Republic underscores the lesser prospectuses for raising climate change disasters in Nigeria to the attention of the Nigerian governments. The shortchanging of electoral democracy and the party system as have been shown above underscore the perpetuation of high climate change vulnerability.

Table 4 highlights environmental disasters which have accompanied the ongoing global warming in Nigeria. Table 4 shows there is a widespread character of environmental disasters in Nigeria. The low extent to which these environmental disasters have been incorporated into the political process in Nigeria is low despite its magnitude and country-wide spread.

Authoritarian character of the public policy process in and vulnerability to climate change in Nigeria:

Vulnerability to the contemporary climate change is critically related to the proven authoritarian character of the public policy process in Nigeria in two related dimensions.

The first is that on all accounts, the manner in which the Federal Government of Nigeria through its control of petroleum revenues dominates in the thrust of solving the current global warming is an indicator of the top-heaviness of revenue sources to the advantage of the central government instead of the lower-tier governments including the state and local governments. The overall authoritarianism of the public policy process has undermined significant commitment of the Nigerian state in solving climate change problem. For indeed, democratization of the public process provides the opportunity of reducing vulnerability:

For any country that lays a modicum of claims to democracy, the dynamism of public policy is defined by the nexus of popular participation. This is properly stated in the manner in which participatory governance is designed to bring social actors into the activities of the state at all levels so that citizens can be involved in shaping and determining public policy. The essence of deliberative democracy is to improve the quality of deliberations by bringing citizens together to discuss policy matters and making them a dominant part of democratic life (Ibeanu and Egwu, 2007)

The role of the Federal Government of Nigeria in reducing vulnerability has included the following:

- Setting up of the National Emergency Management Agency (NEMA) with the mandate to coordinate, liaise, monitor environmental matters in Nigeria. It was indeed in response to the upsurge of disasters that NEMA was set up through Decree No. 12 of 1999. As Adebimpe (2011) observed, this legal instrument was fashioned after the United States Emergency Management Agency (UNNEMA) law

Table 4: Highlights and spatial distribution of major environmental disasters in Nigeria, 2001-2008

State	Types of major disasters	Remarks
Abia	Rainstorm, soil erosion	Soil erosion is prevalent
Adamawa	Flood and soil erosion	Soil erosion is a prevailing disaster
Akwa Ibom	Flood, rainstorm	Soil erosion is prevailing disaster
Anambra	Rainstorm and soil erosion	Soil erosion is prevailing factor
Bauchi	Windstorm	Windstorm is frequent
Bayelsa	Flood and coastal erosion	Erosion is the commonest problem
Benue	Flooding	Flooding is frequent
Borno	Desertification and flood	Desertification is the major problem
Cross river	Oil pollution	Oil pollution is the major problem
Delta	Flood, rainstorm and oil pollution	Oil pollution is the major problem
Ebonyi	Soil erosion	Soil erosion and bush fire are the commonest problems
Edo	Flood, rainstorm and erosion	Erosion is the prevailing problem
Enugu	Soil erosion, rainstorm and flood	Rainstorm and soil erosion are common
Ekiti	Rainstorm, flood	Rainstorm and soil erosion are common
Gombe	Desertification	Desertification and rainstorm are common
Imo	Rain and windstorm, soil erosion	Soil erosion is the major problem in the area
Jigawa	Flood, windstorm	Desertification is the major problem
Kaduna	Rainstorm, windstorm and flood	Rainstorm is common
Kano	Flood, fire and windstorm	Flooding is frequent
Katsina	Windstorm and flood	Desertification is the major problem
Kebbi	Windstorm and flood	Desertification is the major problem
Kogi	Flood and rainstorm	Rainstorm and bush fire are the major problem
Kwara	Flood and rainstorm	Rainstorm and bush fire are the major problems
Lagos	Erosion and flooding	Flooding are annual events
Nasarawa	Bush fire	Bush fire is the major problem in the area
Niger	Rainstorm, flooding	Flooding is common in the area
Ogun	Flooding	Flooding is common in the area
Ondo	Rainstorm and erosion	Flooding is common in the area
Osun	Rainstorm	Rainstorm is too frequent
Oyo	Flooding, rainstorm and erosion	Rainstorm and flooding
Plateau	Erosion	Rainstorm
Rivers	Erosion, oil pollution and flooding	Erosion is a major problem
Sokoto	Flood, quelling birds and windstorm	Windstorm, drought
Taraba	Desertification	Desertification is a major problem
Yobe	Drought, bush fire and flood	Drought is common
Zamfara	Flooding and windstorm	Occasional flooding is not uncommon
FCT	Windstorm and flooding	Windstorms are frequent

Adebimpe, Climate Change Related Disasters and Vulnerability: An Appraisal of the Nigerian Policy Environment, Environmental Research Journal

- Signing up to the United Nations Framework Convention for Climate Change (UNFCCC) in which Nigeria is also widely recognized as vulnerable to climate change. Nigeria became a party to the UNFCCC in 1992 and thereafter the Kyoto protocol
- The development of such documents by the Federal Government of Nigeria to tackle climate change as the National Climate Change Policy; the National Appropriate Mitigation Action (NAMA) and the National Adaptation Strategy and Plan of Action (NASPA)
- Building of a governance structure to manage climate change in Nigeria including the creation of a national focal point namely the Special Climate Change Unit, SCCU within the Federal Ministry of Environment. Also included is the Inter-ministerial Coordinating Committee on Climate Change
- In 2010, the National Assembly passed a bill to create a national Climate Change Commission which once established will facilitate coordination and support for the multi-level and cross-sectoral adaptation responses (Ajaiyi, 2011)
- National Assembly proposal for the creation of National Climate Change Trust Fund which is meant to ensure the availability of Fund for prosecuting projects of environmental mitigation
- Request by the Federal Government for global operators of the oil and gas industry to re-strategize on sustainable policies for the sector and the promise by the Federal Minister of Petroleum Resources to devise a holistic approach to policy formulation on climate change
- The role of the Federal Government in leveraging the Clean Development Mechanism (CDM) to access funds for major projects
- Drawing the attention of the global community to the protracted issue of gas flaring and environmental degradation in the Niger Delta by a number of international oil companies operating in Nigeria

Even though, these accomplishments are acknowledgeable, there is the need to diversify these roles to also include the state and local government tiers, especially as the most feasible thrust of solving the

ongoing climate change will require satisfactory mobilization of the Nigerian people. Climate change adaptability for instance is best handled by governments at the grassroots who certainly relate more significantly with the local lives of the people. As Adebimpe (2011) rightly observed:

Much still needs to be done to develop local awareness, knowledge and expertise. Whereas NEMA is structurally incapacitated, the situation is worse at the state and local government levels. Although, the 1999 NEMA Decree directs each state to have fully equipped emergency management agency, this has not been realized. Furthermore, a National Disaster Response Plan was prepared about three years ago, it has not been put in use. It is however, quite heartening that the Nigerosat-1 (satellite) is now gathering data on environmental conditions and resources; what is of utmost concern is the application of such data for participatory and sustainable environmental emergency management (Adebimpe, 2011)

CONCLUSION

This study has noted that the ongoing global warming and the numerous related disasters that it has creating in Nigeria have two clear aspects of the inadequacies of global governance in Nigeria. The first is that even though, industrial activities in the developed countries have constituted a significant aspect of the anthropogenic causes of the global warming, the limited democratic impetus of contemporary global governance has been limiting the propensities to which the advanced countries and the international organizations superintended by them have been contributing to combating as well as mitigating the menace. The second issue raised is that globalization has equally been negating democratization in Nigeria thus, making it difficult for the Nigerian state to effectively embattle climate change. In this respect, it has been noted in the study that the forces of globalization have been in confrontation with the domestic forces of democratization in Nigeria including the Nigerian peasantry, the petty bourgeois and the working class. It is clearly articulated that the weak democratic impetus of political rule in Nigeria has been undermining the prospectuses of organizing the Nigerian people and effectively mobilizing them for climate change adaptability and mitigation. The negative roles of globalization in the democratic development of Nigeria, especially in the aspect of raising

the orthochtonous value of democracy have even expanded in the current neoliberal political economy regimes which Nigeria embraced since the mid 1980's. The study thus, examined these failures in climate change mitigation in the context of failures in poverty alleviation in the country; failures in electoral democracy and the party system and also growing thrust of authoritarian rule in the public policy process. Implicit in the study therefore is that the reduction of vulnerability and the realization of the various aspects of climate change mitigation in Nigeria would continue to require the engendering of appropriate democratic governance in Nigeria. Political rule that is properly anchored on democratic governance would no doubt provide higher impetus for climate change mitigation and reduction of vulnerability. The absence of democracy requires the continuous pursuit of it.

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