

THE POLITICAL ECONOMY OF CLIMATE CHANGE IN AFRICA: NIGERIA IN PERSPECTIVE

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Abstract

The burning issue of Climate Change as it affects the various facet of human life relatively, particularly in the developing African countries such Nigeria, has taken center stage in the political economy discourse in contemporary time. Thus, this paper explores the political economy of climate change in Africa with a focus on Nigeria. Though, it is believed that African countries contribute the least of any country to global warming yet that are relatively affected than any other continent. The research is anchored on the Marxian political economy paradigm or a explanatory tool for understanding the development of climate change issues and adaptation in Nigeria. It as found that the level of development of countries in terms of technology and other socio-economic various contributed to the management of climate change.

Keywords: Political Economy, Climate Change, Africa and Nigeria, Global Warming and Development

Introduction

Climate change has become a factor that has harped on and compounded the problems of the globe through an environmental dimension. Moreover, it has been viewed by philosophers in the past passively as less harmful, but due to the current globalization of values, information and trends aided by science and technology, free movement of goods, services and information likening the world as a global village; certain problems and social changes as climate change has been viewed to be of local contributions in different atomized but yet connected and global effects. Climate change has had itself to be presented as having a catastrophic end in parlance of the sustenance of the world's biological and non-biological existence. The studies that show climate change has arisen from various viewpoints in terms of scientists and their different theorem and generalizations, proven at times, disproven at other times, and integrated holistically to stand the test of time. Climate change has been viewed from the readings of ice ages in the 19th century and thus has gone through to purview global cooling to be the general particular effect of aerosols in climate change. With the increase in man's industrial activities and science and technology as the hub for developmental progress by the end of the 19th century, it was later revisited that the general

effect of climate change was that of global warming with additions of CO₂s. (www.wikipedia.com).

Two decades since the Earth Summit in Rio, (i.e 1992) to the negotiations at Kyoto, the international system is preparing for another round of a comprehensive review of the governing framework for attaining the goals of sustainability through slowing the process of climate change, thereby reducing the possible adverse effects on humanity of the phenomenon. Indeed at this crucial time, all parties to the negotiations would go there better informed and equally armed, having seen more practical manifestations, and consequences, of climate change. Significantly, if there is consensus on any one issue in the climate change discourses, it is about its concrete and fundamental reality. What remains in contention, among others, is the distribution of the costs of climate change among the developed and not-so-developed countries. There is, however, no doubt that developing countries bear the brunt of the costs of climate change in disproportionate degrees.

In lay terms, climate change and all of our growing concerns about it implies the need to strike a balance between the insatiable quests for development on the one hand, and the need to preserve the life support system of the planet earth on the other. Accordingly, it has been argued, and convincingly too, that it is our seeming inability or reluctance to sustain the balance in the life support system of our planet in the past that is responsible for the cataclysmic weather patterns in which floods submerge places that were almost impossible to imagine as submerged; or torrential rains in semi-desert areas; or low crop yields due to insufficient rains in largely agricultural terrains, etc. This phenomenon is also closely associated with some strange illnesses or extreme hot weather in traditionally cold places. Human activities (i.e. anthropogenic factors) are said to be responsible for the growing rate of climate change and its adverse effects. In particular, development activity is said to be the chief driver of climate change. What this implies is the need for humanity to moderate, in a fairly determined manner, neither its activities in a way that neither compromise the environment nor development in human societies.

Here, it can be asserted that global warming comes from the release of CO₂ into the atmosphere by increasing activities of man from traditional agricultural practices, industrial activities producing carbon monoxides (CO), products of aerosols and Chlorofluorocarbons (CFCs) from refrigerants and coolants. All these add with the greenhouse gases to warm the atmosphere and deplete the ozone layer (O₃) covering of the earth's atmosphere which allows the radiation from the sun to penetrate the atmosphere causing a geometric increase in temperature. Also added to this is the trapping of the carbon that is emitted into the atmosphere by the reaction in the atmosphere. This has caused a geometric increase in the temperature of the atmosphere, hence, what is resultant is the melting of the Polar Regions formerly covered with icebergs and ice glaciers. The ice melted adds to the sea and causes rise in sea level, which causes inundation of coastal cities and arable lands. At the other hand, the heat increase causes desertification of former arable lands, erosion, hunger, migration, poverty and conflicts for the earth's limited resources often expressed in terms of money. This has been worst at the less privileged and developing regions of the world. It is noted that:

Although African contributes only about 3.8% of total greenhouse gas emissions, the continent is among the most vulnerable in the world. According to IPCC's climate modeling results (IPCC, 2007), decreasing water resources as a result of climate change is heavily affecting water levels of major rivers and lakes in Africa. Climate change will result in increased frequency and severity of droughts, floods and other extreme weather events, negatively impacting Sub-saharan Africa, thus economies that depend heavily on sectors such as agriculture, forestry, fishery and tourism are quite susceptible. This is because many African economies

heavily rely on climate sensitive sectors (African Economic Research Consortium, 2013).

According to Scott (2005) Africa can easily be said to contribute the least of any continent to global warming. Each year Africa produces an average of just over 1 metric ton of the greenhouse gas carbon dioxide per person, according to the U.S. Department of Energy's International Energy Annual 2002. The most industrialized African countries such as South Africa, generate 8.44 metric tons per person, and the least developed countries, such as Mali, generate less than a tenth of a metric ton per person. By comparison, each American generates almost 16 metric tons per year that adds up to the United States alone generating 5.7 billion metric tons of carbon dioxide per year (about 23% of the world total, making it the leading producer), while Africa as a whole contributes only 918.49 million metric tons (less than 4%). It is a cruel irony that, in many experts' opinion, the people living on the continent that has contributed the least to global warming are in line to be the hardest hit by the resulting climate change.

Thus funding becomes very crucial under a sort of politics between self interested groups who are often ignorant and possible for a consensus and organized political action in tackling the challenges, facing man through climate change in general. Hence it is of paramount importance to understand the political economy of climate change in Africa, with Nigeria in perspective.

The Problematique: Contending Political Economy issues of Climate Change and Global Warming in Nigeria

Although climate change is increasingly becoming clearer as a practical phenomenon by the day, its academic conceptualization is still fluid. This is because it has largely remained an academic and policy issue. For this reason, its conceptualization has been shrouded in high sounding technical lexicon that makes comprehension very challenging.

Climate change refers to changes in the mean and/or variability of its properties (including rainfall temperature) that persists over an extended period of time, typically decades or longer. The changes can be caused by natural or human activity (Siyanbola, et al, 2001; IPCC, 2007). It is certainly a growing concern in the world, especially in Africa where rain-fed agriculture is widely practiced.

The current climate change impacts on the African region and likely to intensify, particularly in areas where adaptive capacity is very low. Possible impact on the society and economies across the region could be tremendous in sectors such as agriculture, health and industry, among others (Jalloh, 2011). Nigeria is located primarily within the lowland humid tropics, and is generally characterized by a high temperature regime almost through the year. Her climate varies from a very wet coastal area with annual rainfall greater than 3,500mm to the Sahel region in the north-west and north-eastern parts, with annual rainfall less than 600mm (NEMA, 2009). This often results in climatic hazards, especially floods and droughts, with attendant devastating effect on food production and the nation's economy.

Climate change is a consequence of anthropogenic green house gases (GHG) Emissions related to resource consumption and production processes, which simultaneously influences the productive basis of the economy and human living conditions.

According to Rhaji (2012, 3), climate change is a pattern of change affecting global or regional climatic conditions, as measured by changes in such factors as average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused both by natural processes and human activity. The problem or phenomenon of climate change arises because the concentration of greenhouse gases (GHGs) produced by human activity has increased significantly (Spore, 2008). Some of the major features of climate change include natural resource depletion, reduction of the Ozone layer, and global warming. These features are, to a larger extent, mutually reinforcing. Of the three, global

warming has attracted a lot of attention so much that it is often seen as synonymous with climate change. It suffices to state at this point however, that climate change is a long-term phenomenon, and may take at least seventy years to manifest. Let us now address the salient features of global warming.

Global Warming

This refers to the palpable increases in global temperature that causes the atmosphere to be warmer. According to Nicholson (1998, 158), the earth is getting warmer principally because of human activity which results to the release into the atmosphere of certain gasses, mainly Carbon Dioxide, CO₂. As large quantities of these gasses concentrate in the atmosphere, they trap heat, which would have escaped if much of those gasses were not in the atmosphere, thereby raising the temperature of the earth. This is what is referred to as the *Green House effect*. Some of the major effects of global warming include rising of sea level, more frequent violent and catastrophic storms, hurricanes, etc. As earlier mentioned here, human activity is the chief driver of climate change, and in this regard, deforestation has been fingered as one of the main contributing factors of global warming. A brief look at the role of forests in maintaining environmental balance will suffice here.

Forests play quite a number of significant roles in maintaining the equilibrium of, not just the environment, but in the entire system of planet earth. For instance, forests play very cardinal roles in maintaining soil fertility, and by implication in guaranteeing food security, among others. This is normally done through the storing and transpiration of water for precipitation. Forests also serve as natural habitat for a lot of animals and plants. For example, the forests in Gabon alone is said to contain over 8000 plant species, almost 200 mammals and over 670 species of birds.. Furthermore, forests communities, who often depend on it to meet their basic needs. But most of all, forests are said to play determining roles in carbon sequestration, where they act as nature's store house for CO₂.

Deforestation does not only lead to the disruption of these vital life support processes, it also is a major source of Green House Gases emission in to the atmosphere thereby aggravating global warming.

In the last two decades, the growing industrial resource hunger among developed and other industrialization countries has been a major driving force behind the growing problem of deforestation and its attendant consequences. According to the Intergovernmental Panel on Climate Change (IPCC), an estimated 1.6 billion tons of CO₂ ARE discharged into the atmosphere every year through deforestation activities. And according to Africa Files, "annually, 25% of GHGs are directly attributable to the cutting and burning of tropical forests". Accounting for the problem of deforestation and global warming, the World Rainforest Movement (WRM), noted that "... deforestation is the inevitable result of the current social and economic policies being carried out in the name of development". The WRM further submitted that

The root of the problem of deforestation and waste of resources are located in the industrialized countries, where most of our resources, such as tropical timber, end up. The rich nations with one quarter of the world's population consume four fifths of the world's resources.

According to available data on logging and commercial export of raw tropical log, the above submission by the WRM, can be buttressed by these statistics, for instance, that well more than 3.5 cubic meters of raw tropical logs were exported from Africa in 2006,... with China and other Asian countries taking over from the United States and the European Union as main destination. Gabon, Cameroun and Nigeria's Cross River State are said to be most hard hit in Sub-Saharan Africa. Add to this scenario the reality of GHGs emission resulting from industrial and other urban activities, in which the state of Texas in the USA for instance, with just a total population of 23 million people emits more CO₂ than all the 270 million people of Sub-Saharan Africa. This evidence on the contribution by regions of the

world to global warming and climate change brings us back to the earlier question on the distribution of the costs of mitigating climate change.

Many studies have ascribed natural, human activities or both as causative factors of climate change. For instance, naturally, the climate goes through different cycles of variable duration, alternating between cold and hot periods. The earth has gone through several phases of warming and cooling over the last 700,000 years, at an average frequency of 100,000 years per cycle (Denhez, 2007). The warm period undoubtedly affected the development of agriculture and animal husbandry. Nevertheless, the consensus among many scientists in the last few years ascribed the cause of major global warming to human interference with the climate system.

It is now widely agreed that the main cause of the present climate change is the emission of green house gases (GHG), mostly carbon dioxide, methane, nitrous oxide in large quantities by human activities. These activities include agricultural production, industrialization, burning of fuels and deforestation, wetland degradation, among others (Stern, 2007). These gases react with the ozone layer which protects the earth from the sun's radiation. Reports showed that agriculture contributes 10 per cent and deforestation accounts for almost 20 per cent of GHG emissions to climate change. These GHG emissions are sequestered in oceans, forest and wetlands, soils NO_3 which serve as carbon sinks (IPCC, 2007).

The situation of global warming as a result of climate change at hand, is not helped by the Governments in Africa, Nigeria for example is a mono-cultural economy in which all attempts at diversification is hindered by the indigenous capitalist class, whose sustenance is dependent on such means of production which does not help the poor-dependent on few agricultural products. It is evident that-practically, it is costlier to buy indigenous fruits of the season, as a source of nourishment and health care, the nationals of Nigeria find it cheaper to import rice in large quantities rather than producing them, probably due to low mechanized farming to satisfy and feed the population. What sustains the Nigerian economy is a rentier system in which crude exploration of oil resource is the basis for revenue generation, even at that the Marxian literature does not esteem the economic setting of Nigeria as productive since the creative energy (the science behind the production) is wielded by the foreign expertise and even the tools of production is only controlled and not owned by the Nigerians. It can be said that Nigeria has little or no means of production, this can be seen in the Foreign Direct Investment (Abroad) of Nigeria. Nigeria can be said to be dependent on the developed economies holistically and is only controlling the means of production. This explains why Nigeria has not divested and increased capacity in agricultural sector prior to the advent of adverse effects of rapid climate change like flooding. Thus, Nigeria is said to be sensitive to agricultural challenges in climate change, whereby there is a contradiction of labour invested in Agriculture, furthermore worsened by the problem of climate change, this directly reflects in agricultural production as follows:

About 40% of the gross national product of African countries flows from agriculture, 70% of African workers are employed in agriculture, most of them on small plots of land. "Africa is full of poor people, who are highly dependent on climate-related issues for their livelihoods,' they are subsistence farmers in often very marginal environments (Scott, F., 2005).

This above have rekindled yet another series of discussions in helping Africa build capacity for agriculture, have seen that the climate change is significant relationship and correlation with development. What follows is that Africa is persuaded not to develop industries on the reason that it has for years failed in making use of its developmental opportunities, what it portends is that African states should adapt to the present

developmental challenges and other related challenges from climate change. This has been expressed through the increasing quest for funding climate change policies in Africa and thus raised a question: how does political economy of climate change affect Africa?

Theoretical Framework

Climate change has been noted earlier on as to be posing multivariate problems which add up to the teething problems in the scramble for earth's resources. The nature of the subject matter is so complex and had earlier on in its discovery, given a multi disciplinary approach. However, the problem comes from different pockets of man's activity which in its differentials have complexly contributed to the global effects of climate change and hence has a reinforcing relationship within the human and environmental systems. Wikipedia noted as follows:

Climate change has reached the top of the international agenda even while debates about its causes, consequences, timing, trajectory and remedies continue. Technologists and planner are devising ways of mitigating and adapting to climate change in advance of its full impact. Financial experts are exploring the impact of climate change on trade and investment, the cost of climate change and the cost of addressing it. Development specialist are beginning to plan for the impact that climate change will have on social services and public goods (www.wikipedia.com).

By the nature of the problem posed by climate change, the identification of the subject matter leads to the problem of classification; how it is to be approached or studied before it can be of use; the possibility to effectively of ascertain what use it can be put in its analytical forms. Looking at this, globalization as an approach tends to trivialize the dangerous effect of climate change to human development. It is noted that there has been the need to view it again through a form of public policies' approach and this comes into effect from the observation that climate change has been on the increase with development and implying that the lack of climate change means poverty and underdevelopment, Hence it should be noted that:

Climate change initiatives and governance approaches have tended to be driven from the global scale. While the development of international agreements has witnessed a progressive step of global political action, this globally-led governance of climate change issue may be enabled to provide adequate flexibility for specific national or sub-national conditions. Besides, from the development perspective of view, the issue of equity and global environmental justice would require a fair international regime within which the impact of climate change and poverty could be simultaneously prevented. In this context, climate change is not only a global crisis that needs the presence of international politics, but also a challenge for national or sub-national governments (www.wikipedia.com).

Therefore the Marxian Political Economy paradigm presents a tool for explanation in development of climate change issues and adaptation in Nigeria. This focuses on the material conditions of life (the economic substructure), and how this influences the other dimensions (or superstructures) of interaction, be it ideological, political, legal, social, cultural, scientific and or religious. This paradigmatic leaning helps in understanding the complexities and unity of these different elements of the society. (Marx, 1870:22; Wright, 1978; Offiong, 1980; Rodney, 1972, Ake, 1981). One of the in depth analysis of the current tide of global capitalism has been expressed deeply in one of Marx's analysis of what connotes value, action and help, as it directs that the expressions of humanitarian aids in the character of money will eventually lead to continuous contradictions-this reflects the character of climate change funding:

It is the abstract relationship of private property to private property, and the expression of this abstract relationship is value, whose actual existence as value constitutes money. Since men engaged in exchange do not relate to each other as men, things lose the significance of human, personal property (Karl Marx, 1844:3).

The Marxian political economy as a preferred analytical framework, tends to pin down the issue the realities that are involved and gives a direction to where human activities, even humanitarian ones tend to go in the presence of capital formations. From this analysis, climate change has become an additional challenge which has come to deepen the contradictions and gap between the developed and developing countries since in a bid to stem the ugly trend of climate change, the developing countries seem to use the same tool of private property to continue poverty in developing ones, it should be noted that since climate change will eventually have a generalized effect as what goes on in this part of the world may affect the other, there should be a paradigm shift in the kind of assistance that should be given to developing countries.

Africa: Poor Policy Option and Underdevelopment as a challenge

African countries are generally perceived to be vulnerable to the impact of climate change. This situation is due to their low capabilities to adapt to the impact. In Nigeria, for example, agriculture is one of the major sectors of the economy likely to be impacted by climate change. A preliminary integrated assessment model, which assumes minimum adaptation for Nigeria, predicts that climate change could cause a loss in Gross Domestic Product (GDP) of between six per cent and 30 per cent by 2050. It is projected that between two and 11 per cent of Nigeria's GDP could be lost by 2020, if no adaptation strategy is implemented. The model predicts losses of eight to 30 per cent for the Northern part of Nigeria, five to 25 per cent for South East and South South, and seven to 34 per cent for the south West (Ikpi, 2010). Further, the nation's quest to achieve the Millennium Development Goals (MDGs) could be hampered by climate change. Specifically, the attainment of Goals 1 & 7 (OECD, 2009), which have to do with hunger and poverty and environmental sustainability, respectively could be greatly affected.

The fact that Nigeria has not witnessed certain natural disasters such as earthquakes, typhoons or massive floods, does not totally immunize Nigeria from the catastrophic and deleterious effects of climate change. It is surprising that it is taken that Nigeria is not contributing significantly to the CO₂ emission through the gas flaring that has been going on in oil producing Niger Delta region when compared with industrialized countries on a global scale. The Sahara desert which is creeping progressively into parts of the Northern areas of Nigeria will advance at a faster pace, and parts of our low-lying coastal regions are bound to be submerged under water. This has extended droughts to other parts of the region and bringing on desertification. At the end, the population will face the challenges of being denoted as environmental refugees (African Economic Research Consortium, 2013; Korieocha, 2010; Scott, F. 2005).

On the part of Africa and Nigeria in perspective, the climate change issue has tended to become a new factor that will multiply the multiplicities of discontinuities and underdevelopment. There is tendency that the lack of good cushion of emergencies and development policies in place will continue to double the problem of climate change in Africa, complexifying issues and deepening dependence and underdevelopment. Thus the problem of climate change in Nigeria for example should be seen as strongly linked to developmental problems, poverty and unemployment. The state of Nigeria has often been regarded as weak, fragile or failed in putting down good frameworks for its people being on the receiving side of international economic struggle. It should be correct to note inter-alia that economic struggles are not so separate from the social and environmental dimensions of

interaction of man in relation to man's influence on the climate system. To this Scott noted as follows;

The critical challenge in terms of climate change in Africa is the way that multiple stressors-such as the spread of HIV/AIDS, the effects of economic globalization, the privatization of resources, and conflict-converge with climate change, (Siri Eriksen cited in Scott, F. 2005),

Despite longstanding laws prohibiting gas flaring in 1984, Nigeria has been shifting deadline to end the practice, the gas flaring activity continues unconstrained, bringing along with it serious health hazards and conditions for people living 30km nearby, (IRIN, 2012). In the Niger Delta, where most of the flaring takes place, residents living near gas flares complain of respiratory problems, skin rashes and eye irritations, our concern here is mostly how it affects the environment and climate change, in which agricultural damages are wrought particularly from acid rain through the reactions of gases (carbon dioxide and sulphur), flared into the Nigerian air by the oil multinationals. Meanwhile it was noted by the IRIN humanitarian report and analysis that Nigeria takes second place among the countries that flare gases after Russia. What reinstates the view of political economy to the issue of Nigeria's place in the climate change debate, is that one starts to see from the above that, the status quo of the mode of production is even a very big challenge to the developed countries. In most countries of the world, the excess gas is put back into use to generate power. Of course this backward and forward linkage system will energize coherence in the industrial development of Nigeria and empower other sectors of the economy achieving the economic diversification plan of the country which has been in contention for decades (IRIN, 2012).

Apart from these international contributions to global warming and economic implications for Nigeria, Nigeria has had the traditional method of agriculture as earlier noted, as being predominant, such practices such as burning of coals (producing ethane), deforestation (tree felling for firewood and cooking energy), bush burning as a cultivation practice has all contributed to climate change. All these can be given as an excuse for alternative source for cheaper energy, since the so called clean gas of natural gas obtained from petroleum is flared by the oil companies. One can see that any attempt at livelihood is dependent on the economic considerations and business activities of transnational corporations and developed countries, (Medugu, 2009, cited in Enete and Amusa, 2010).

Consensus Building as an International challenge from Economy to Climate change

Contemporary concerns with the mitigation of the adverse impacts of climate change could be traced to the Conferences organized under the auspices of the United Nations, beginning with the United Nations Conference on the Human Environment (UNCHE), held at Stockholm in 1972. In the build-up to, and during the Stockholm Conference, developing countries went beyond the issue of pollution, which was to dominate discussion at Rio, to emphasize the link between development and the environment. The UNCHE accepted the linkages between environmental consequences and economic growth, hence the copious place of this nexus in the recommendations of the conference. Notwithstanding the flagrant disregard by industrialized nations, of the recommendations of the conference, the Conference on the human environment made sufficient impact enough to get the United Nations to establish the United Nations Environment Programme (UNEP). The second major Conference organized by the United Nations in response to the growing international concern with the environment was to come twenty years after the Stockholm conference. Named the United Nations Conference on Environment and Development, (UNCED), it took place in Rio in 1992. This Conference came up with the Agenda 21 and also introduced the concept of sustainable development.

In 2002, the United Nations convened another conference in Johannesburg, i.e. the World Summit on Sustainable Development, (popularly called Rio + 10). The Rio + 10 Conference served the international community, with all its diverse actors, the opportunity to

assess what progress was made on the implementation and realization of the goals established at Rio. Despite the fact that there was little or no successes with the reduction of emissions of GHGs since the Conference at Rio, Rio + 10 was said to be short on extracting further commitments to cutting GHGs emissions. Instead, the World Summit at Johannesburg was tall on setting new targets (O'Brien and Williams, Ibid, 346). In May 2012, the international community convened at Kyoto (Rio + 20), to further assess the progress made in attaining sustainable development. At the end of the gathering, participants agreed on an outcome document which called for a wide range of actions such as beginning the process to establish sustainable development goals, detailing how the green economy can be used as a tool to achieve sustainable development. The document also called for strengthening the United Nations Environmental Programme (UNEP), promoting corporate sustainability, reporting measures, taking steps to go beyond gross domestic product to assess the well-being of a country (i.e emphasis on Human Development Index–HDI), developing a strategy for sustainable development financing and adopting a framework for tackling sustainable production and consumption. It also focused on improving gender equity, recognized the importance of voluntary commitments in sustainable development, and stressed the need to engage civil society and incorporate science into policy, among other points. However, what is evident so far is the fact that very little or nothing has been done to change the existing framework that weakens the capacities of developing countries to put in place policies for sustainable development of their societies.

It has earlier been noted that climate change is in a positive linear relationship with development. What this brings to limelight, is the economic underpinnings of the development and underdevelopment nexus in political science. Such issues have been raised and considered by the representative of international morality through the United Nations that the bid to enhance treaties that will be morally suitable to tackle the climate change problems, through unifying the political and economic strands of state and non-state actors. However transcending the inclusive political and economic divides. It has been noted by Umozurike that this has been a difficult step, he noted as follows;

Following the Earth Summit in Rio de Janeiro 1992, the Kyoto Protocol of 1997 provides that industrial nations shall reduce their emission of carbon dioxide by 5.25 of their 1990 levels. The greenhouse gases, mainly from burning fossil fuels, cause rising temperatures. To come into force, the protocol must be ratified by 55 states causing 55% of the 1990 greenhouse emission. The USA, the largest producer of gases signed but withdrew under the Bush Administration claiming that the Protocol would hurt the US economy. The European Union produces 24.4%, Russia 17.4% and Japan 8.5%, (Umozurike, 1992:257).

It is reported that at the root of environmentalism was the Kyoto protocol, in which its objective was for signatory and member countries was to reduce carbon emission by 5.2 in by 2012. This was hard to achieve as there were and still presently, also economic configurations of gains and losses involved within the protocol and its implication for changing status quo in power configurations of states. India and China have ratified the protocol but were not obliged to reduce greenhouse gas production at the moment as third world states because they were not the culprits for emissions during the period of industrialization which has caused global warming today. Economically this is presently happening when china is about to overtake the USA in emissions, thus the west has outsourced its much of its carbon emissions to China and India (Bloch, M. 2013). Hence, transcending and managing the challenges of climate change through the use of political economy in active and practical measures is a possibility for Africa, and for Nigeria.

Summary: A need for Adaptation Policy Framework for Africa and Nigerian Blueprints.

Again, it is evident that Africa has lacked political capacity to develop their agriculture which can also withstand events unforeseen as presented by climate change. There have been restrictive policies by the reality of agricultural sector in Nigeria-subsistence agriculture, through Land use decree, trade liberalization and commercialization of agriculture. This is commonplace in Africa, whereby people tend to find out new plains in the dry areas to farm for their daily agricultural needs (the places that are unsuitable to the government) such as the Savanna, even such new places have been declared and put out for grazing by the different governments (Scott, F. 2005).

On the other hand, it is noted by certain researchers that since funding African states in their development agendas have not worked, there is need to advance the funding strategy to accommodate the climate change adaptability. African States like Nigeria has from the stand view of developed economies solicited for another stage of funding and aid to cushion the effects that come from non adaptability in development in order to face climate change issues. Thus, it was noted by Nyong as follows:

But as much as financial aid is needed, Nyong says, the reality is that no amount money is going to stop climate change from affecting Africa in profound and unpredictable ways. Africa wasn't able to prevent the buildup of greenhouse gases, he says; "What we are left to do now is to adapt to the buildup (Nyong quoted in Scott, 2005).

Meanwhile some others propose the need for a change in the policy making to accommodate climate change problems by African governments, despite the fact that there has been the lack of political capacity to formulate laws that will guide the different African nations out of poverty and developmental challenges. The adaptation policies should take care of the following challenges to enable the funding have effect. They are viz: mainstreaming climate change into economic frameworks and sectoral policies in order to ensure integrated adaptation responses; strengthening assessment of social and economic vulnerabilities to inform processes for identifying adaptation priorities; provisions of national adaptation policies that provide clear guidelines for integration and implementation of strategies, programmes and activities Madzwamuse, M. (2012). On the other hand, funding should take care of the following factors; the problems of fragile states; understanding informal governance; the difficulty in effecting social change; changes in aid delivery (Cammack, 2007).

References

- African Economic Research Consortium (2013), "Africa: Climate Change and Economic Development", *Press Release*, 23 May.
- Ashsley, M. (2011). "Climate Change Adaptation in Nigeria: Key Considerations for Decision Makers". *Working Paper. KONRAD Adenauer Stifting Nigeria Office.*
- Bioch, M. (2013), "What is the Kyotto Protocol?" <http://www.carbonify.com>, Retrieved May 21.
- Cammack, D. (2007), "Understanding the Political Economy of Climate Change is Vital to Tackling it", *Overseas Development Institute*, Opinion 92, www.odi.org.uk/resources/download/535.pdf, Retrieved May 12.
- Elliot, L. (1997), *The Global Politics of the Environment*, London: Macmillan.

- Enete, A.A. & Amusa, T.A. (2010), "Challenges of Agricultural Adaptation to Climate Change in Nigeria: A Synthesis from the Literature" *Journal of Field Actions*, 4, <http://www.google.com>, Retrieved May 12.
- Federal Ministry of Environment of Nigeria (2001) *National Action Program to Combat Desertification Report*
www.unccd.int/actionprogrammes/Africa/national/2001/nigeria.eng.pdf.
- Heigh C. and Valley, B. (2010). "Gender and Climate Change: the Impacts of Climate Change on Women and Public Policy". *Women's Environmental Network*, England.
- Hurrell, A. and Kingsbury, B. (1992). *The International Politics of the Environment*, Oxford, Oxford University Press.
- Iguisi E.O (nd) *Disaster Risk and Adaptation to Climate Change in Nigeria*. Zaria: Centre for Disaster Risk Management, A.B.U.
- Intergovernmental Panel on Climate Change, (IPCC)
- IPCC (2005) *Carbon Dioxide Capture and Storage: Technical Summary: Climate Change Special Report*.
- IPCC (2007) *Climate Change (2007), Impacts, Adaptation and Vulnerability* (Parry, M.L., Canzan, O.F., Palutikef, J.P., van der Linden, Paul, J. and Hanson, C. (eds) *Contribution of Working Group 1 to the 4th Assessment Report of the IPCC*. Cambridge: Cambridge University Press.
- IRIN (2012), "Nigeria; Gas Flares Still a Burning Issue in the Niger Delta", <http://www.google.com>, Retrieved May 18.
- Korieocha, G. (2010), "A Case Study of Global Warming in Nigeria" A Post on the Peace and Collaborative Development Network, December, 21, <Http://Www.Internaionalpeaceandconflict>, Retrieved May 12.
- Lafferriere, E. (1994) "Environmentalism and the Global Divide". *Environmental Politics* 3(1) pp. 91-113.
- Mackson, D. (2006) *The Perception of and Adaptation to Climate Change in Africa*. *EEPA Discussion Paper No 10*. Center for Environmental Economics in Africa. University of Pretoria, South Africa. <http://www.ceepa.co.26/does/cdno10pdf>.
- Madzwamuse, M. (2012), "Climate Governance in Africa-Adaptation Strategies and Institutions" Heinrich Boll Stiftung, <http://www.google.com>, Retrieved May 12.
- Mani, M, Maikandya, A and Ipe, V (2008), *Climate Change Adaptation and Mitigation in Development Programmes: A Special Guide* Washington D.C: World Bank.
- Marx, K. (1844), "Comments on James Mill, *Elements D*" *economic politique*"
- O'Brien, R. and Williams, M. (2007) *Global Political Economy: Evolution and Dynamics*. New York: Palgrave Macmillan

- Onyishi, A.O. (2011) "Governance and Climate Change in Nigeria: A Public Policy Perspective", paper Presented at a National Colloquium on *Adapting to Climate Change Through Relevant Knowledge*, held at the University of Nigeria, Nsukka Dec., 1-3.
- "Political Economy of Climate Change" <http://www.wikipedia.com>, Retrieved May 12.
- Rhaji, M.A.Y (2012) "Climate Change and Economic Challenges in Developing Countries" Unpublished.
- Scott, F. (2005), "Continental Divide; why Africa's Climate change Burden is Greater", *Environmental Health Perspectives*, August, 113(8):534-537.
- The U.K Environment Agency (2012): "Climate Change Explained" <http://www.environmentagency.gov.uk/homeandleisure/climatechange>. Retrieved 18/03
- Umzurike, U.O. (1992), *Introduction to International Law*, Ibadan: Spectrum Book Ltd.
- UN (2008), "Composition of Macro Geographical (Continental) Regions, Geographical sub-regions, and selected Economic and other Groupings". UN Statistical Division, revised 17 October, 2008.
- United Nations Johannesburg Summit (2002), *Nigeria Country Profile*, Washington, D.C: UNO press.
- United States National Academy of Sciences (2009), *Understanding and Responding to Climate Change*, Washington, D.C: the Presidency
- Wikipedia, the free encyclopedia (2010) Climate Change <http://en.wikipedia.org/wiki/climate-change>, retrieved 2012-09-12.
- World Bank (1991), *Towards the Development of an Environmental Action Plan for Nigeria*, Washington, D.C: West Africa Department.