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## GLOBAL CLIMATE CHANGE: RESPONSES AND CHALLENGES

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### ABSTRACT

No doubt that the issue of Global climate change has been one of the greatest environmental problems whose effects cannot be denied in diverse countries and the world at large. The avert effect from this issue has led to several local, regional and international conferences which have culminated in several protocols, and international legal frameworks formulated (Ranging from The Rio Earth Summit, Kyoto Protocol, and Copenhagen Conference among others) to tackle this issue. Yet Global climate change remains a global concern and a major threat to human security. The study examines the responses to Global Climate Change and the factors limiting the effectiveness and efficiency of the response. This paper adopted the descriptive historical approach and relied solely on secondary sources for data collection. This paper found among others that there are gaps between policy formulation and policy implementation, the major debacle to the effectiveness of the policies is the proliferation of Multilateral Environment Agreement (MEA), overlapping interest between market and nature and lack of gender sensitivity of the responses. Based on the findings, we recommend the need for the feminization of climate change response and more effort towards implementation.

**Keywords:** Climate change, Global, Health

### 1. INTRODUCTION

Climate change is a topical issue around the globe today. This is because of the devastating impact it has on humanity and particularly on the health of those that lives within a given territory (WHO 2008). Buttressing further, a statistics of about 800, 000 people die from causes related to urban air pollution, 1.8 million from diarrhea mainly ensuing from lack of access to clean water supply and sanitation, and from poor hygiene, 3.5 million from malnutrition and approximately 60 000 in natural disasters (WHO, 2008). While the Fourth Assessment Report of the United Nations Inter-governmental Panel on Climate Change (IPCC) (2007) emphasized that climate change currently contributes to the global burden of disease and premature death (Health and Environment Alliance, 2007). Similarly, WHO Press briefing on 2008 World Health Day asserts that annually Climate change threatens the health of global community and since health is wealth, global climate change threatens global economy. Empirically, Omoruyi and Kunle (2011) study revealed that there is a significant relationship between climate change and mortality rate in Nigeria.

Put differently, Climate change magnifies existing inequalities and that the debilitating impact of climate change is more severe on women than on men (UNDP Development Report, 2005). While the Royal College of Obstetricians and Gynecologists in its statement of support for The United Nations Population Fund (UNFPA) (2009) *State of the World Population* report, assert that:

“Poor women in poor countries are vulnerable to the effects of climate change. Climate change has the potential to disrupt progress towards achieving the Millennium Development Goals. It threatens to exacerbate current inequalities through hardships such as water scarcity, changes in food availability, migration, internal displacement, civil strife, and health crises”.

Similarly, Climate change and its potentially devastating short-term and long-term consequences have received heightened attention at global, national, and regional levels during this decade. Climate change is described as the biggest global health threat of the 21<sup>st</sup> century (Preet *et al*, 2010). More so, Climate Change does affect in a direct and indirect way human health. Although, the indirect effects are not easily seen and understood (Spohr, 2004). Science shows that climate change affect human health across the world. From diminished air quality and degradation of food and water supplies to increasing levels of allergens and catastrophic weather events (Natural Resources Defence Council, 2011). The consequences of Climate change also include temperature related morbidity and mortality, extreme weather events, air pollution , water and food contamination, vector borne and zoonotic diseases, and health effects of exposure to ultraviolet light (WHO, 2003).

It is however, fundamental to note that climate change is not a neutral process; first of all, women are generally more vulnerable to the effects of climate change, because they represent the majority of the world's poor and because they are dependent on natural resources that are threatened (Women's Environment and Development Organization,2007). Climate change currently contributes to the global burden of disease and is projected to increase threats to human health (Preet *et al*, 2010). There is increasing evidence that global climate change and climate variability will affect the quality and availability of water supplies (Natural Resources Defence Council 2011). Also, current scientific research shows that climate change will have major effects on precipitation and ultimately on the water supply (WECF, 2012).

It is based on this that this paper examines climate change vis a vis identifying the responses and challenges of ameliorating the impact of climate change.

## 2. LITERATURE REVIEW

### 2.1 The Concept of Climate Change

Climate change simply refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that of the United Nations Framework Convention on Climate Change (UNFCCC), which defines climate change as human activity which directly or indirectly alters the composition of the global atmosphere (Intergovernmental Panel on Climate Change, 2001). Global climate change raises therefore from the issue of the relationship between the general use of resources by human populations and the limits set to resource utilization (Luterbacher, 1996).

It is significant to note that climate change is different from climate variability. Climate variability refers to variations in the prevailing state of the climate on all temporal and spatial scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system, or to variations in natural or anthropogenic (human-driven) forces. However, Global climate change indicates a change in either the mean state of the climate or in its variability, persisting for several decades or longer. (Climate Change Information Resources- New York Metro Region 2005:1). Climate change and its potentially devastating short-term and long-term consequences have received heightened attention at global, national, and regional levels during this decade. Climate change is described as the 'biggest global health threat of the 21st century' (Preet *et al*, 2010).

### 2.2 Causes of Global Climate Change

The following are some of the identified causes of climate change:

**Population:** It has been observed that increasing population places a great demand on the environment. More population will need new houses which means more trees will be cut down to build houses, and provide furniture for class room, more water (for food, industry and household use), carbon (for food and fuel), nitrogen (for fertiliser) and land (for crops, pastures and cities) (Irish Times 2011). Population growth is generating an extraordinary range of negative effects from climate change and resources exhaustion to the destruction of species and habitat and the poisoning of the biosphere (Nicholson-Lord 2007:

245). Population growth has led to increasing demands for energy and land resources. Through the burning of fossil fuels to produce energy for industrial use, transportation, and domestic power, and through land-use change for agriculture and forest products, humans have been altering the Earth's energy balance. (CCIR, NYC 2005: 2). Put differently, over the past century meeting human needs for food, fresh water, fuel and other resources has had major negative effects on the world ecosystems; those effects are likely to grow worse over the next half of the century and will pose serious obstacle to the reduction of global hunger, poverty and disease (Easton 2007: XXVI).

Furthermore, Paul Ehrlich noted in his work *The Population Bomb* the ecological threats of a rapidly growing population and Garret Hardin's influential essay "*The Tragedy of the Commons*" describe, the consequences of using self-interest alone to guide the exploitation of publicly owned resources such as air and water. In 1972, a group of people popularly called the Club of Rome published *The Limit of Growth: An analysis of population, resources use and pollution trends* which predicted difficult times within the century. The study was redone as *beyond the limits to Growth: confronting global collapse, envisioning sustainable future* which came to a similar conclusion that increasing population is affecting climate change (Easton 2007: XX). In the 1960s and 1970s, this was expressed as the "spaceship Earth" metaphor, which stated that we have limited supplies of energy, resources, and room and that we must limit population growth and industrial activity, conserve and recycle in order to avoid crucial shortages (Easton, 2007:20-21).

**FOSSIL FUEL:** Another major factor contributing to Global climate change is the burning of fossil fuel. Fossil fuel also known as Black carbon is generated from industrial pollution, traffic, outdoor fires, and the burning of coal and biomass fuels. Black carbon is formed by incomplete combustion especially of coal, diesel fuels, bio fuels and outdoor biomass burning.

The particles from this activity absorb sunlight, both heating the air and reducing the amount of sunlight reaching the ground (CCIR, NYC 2005: 2). In addition, in 2005, burning fossil fuels sent about 27 billion tonnes of carbon dioxide into the atmosphere. Fossil fuels are burn to create energy, which is used for many things such as heating homes, construction, transporting and cooking food, travelling (for example, by car, plane, bus and train) treating water to make it portable, heating it and piping it into homes manufacturing, using and transporting products, from clothes to fridges, from plastic bags to batteries (IPCC 2010)

Transport is projected to create the fastest proportional growth in greenhouse gas emissions of any sector (WHO 2002). In Nigeria, statistics reveal that 55% of the total national petroleum products consumption takes place in Lagos State particularly in the transport sector (Akinbami, 2009). And specifically in Nigeria where gas has been flared for over five decades the vulnerability to climate change is high. According to Iyayi, (2004) Gas flaring contributes to climate change, which has serious implications for both Nigeria and the rest of the world. Nigeria is one of the highest emitters of greenhouse gases in Africa and among the highest CO<sub>2</sub> emitters in the world (Orimoogunje et al., 2010).

**DESERTIFICATION:** The combustion of fossil fuels is not the only anthropogenic source of carbon dioxide. Deforestation is also cutting down forests faster than they are replaced. Deforestation is a major contributor to climate change. It causes 5.9 billion tonnes of CO<sub>2</sub> per year to be released into the air. This accounts for 20 per cent of the world's carbon emissions – more than the entire global transport sector produces. (Jekayinfa and Yusuf, 2012)

Deforestation makes such a huge contribution to carbon emissions because trees absorb CO<sub>2</sub> as they grow. The more trees that are cut down, the fewer there will be left to absorb CO<sub>2</sub>, leading to it building up in the atmosphere. When ecosystems are altered and vegetation is either burned or removed, the carbon stored in them is released to the atmosphere as carbon

dioxide. The principal reasons for deforestation are agriculture and urban growth, and harvesting timber for fuel, construction, and paper. (CCIR, NYC 2005:2)

A recent research which focuses on the growing trend of desertification Nigeria shows that 11 states were seriously affected by desert encroachment. These states include Adamawa, Kebbi, Kano, Katsina, Jigawa, Bauchi, Borno, Yobe, Zamfara, Gombe and Sokoto states. The research also noted that between 50 per cent and 75 per cent of Bauchi, Borno, Yobe and Gombe states and Thirty-five per cent of Adamawa, Jigawa, Kano, Kebbi, Sokoto, Zamfara and Katsina states are prone to desertification, while 10 per cent to 15 per cent of the neighbouring states are also desert-prone' (Abocholnan, 2012).

### 3. RESPONSES TO GLOBAL CLIMATE CHANGE

Below are some of the responses geared towards ameliorating the effects of global climate change:

**INDIVIDUAL RESPONSES TO GLOBAL CLIMATE CHANGE:** Aside multilateral responses from intergovernmental organization through the United Nations and regional framework or unilateral action from state, individuals have also responded to climate change. Individuals, presidents, vice president, celebrity, ordinary individuals and even corporate organizations have become environmental icon or champion of what has been called the face of green i.e. spoken persons for green. A prominent environmental activist is former vice president of USA, Al Gore. Remarkably, for several decades now, April 22 marks the anniversary of what many consider the birth of the modern environmental movement in 1970 and April 22 of every month of the year has been celebrated globally as earth day. This is often marked with activities such as tree planting, advocacy and speeches.

Also, green clubs have become a feature in higher institutions, secondary and primary schools. Corporate organizations have adopted green cause as major social responsibility and companies have produced eco-friendly products to show solidarity towards the green. There has been a lot of fanfare with global environmental issue with the Eco-certification programme. Eco-certification programme are programs in which firms volunteer to meet environmental-performance standards in exchange for the right to display an eco-label or logo on their products or advertising materials (Klaas and Matthew, 2011).

**UNILATERAL RESPONSES TO CLIMATE CHANGE:** This refers to independent action taken by individual states to combat the debilitating impact of Global climate change. Through the various international environmental agreements countries have been encouraged to have a national adaptation programme as part of the effort to combat the consequences of Global Climate change. Almost every country has a national environmental programme and national agency to back the enforcement of international environmental law. Nigeria is a signatory to numerous multilateral environmental agreements such as Kyoto, has also unilaterally formulated national environmental policies and law to combat Global Climate change.

Nigeria created a Special Climate Change Unit (SCCU) within the Federal Ministry of Environment with the Secretariat in Abuja, Nigeria. The Unit was created to implement the Convention and the protocol. There is also a Presidential Implementation Committee on the Clean Development Mechanism (CDM) in the Presidency. Similarly, the Department of Meteorology in the Ministry of Civil Aviation was upgraded to a full-fledged Nigerian Meteorological Agency (NIMET) in 2003 to enhance climate data and climate monitoring systems (Ologunorisa, 1996). There is also the Federal Ministry of Environment with a department of Climate change whose main objective is research on climate change. The ministry's activities also include collaboration with Inter-governmental organization and other interest partner in climate change.

Moreso, state and provinces within many state and federal have environmental laws and government agencies to back the law. For instance Lagos State has an environmental policy. Lagos has been regarded as the most proactive states in Nigeria in terms of climate change response activities. Lagos is a member of the C40 Large Cities Climate Summit, an organization dedicated to helping some of the world's largest cities to tackle the challenge of climate change (Building Nigerian Response to Climate Change, 2012)

**Regional Responses to Climate Change:** Aside multilateral responses at the level of the United Nations in collaboration with its member state, there has also been collaboration at the regional level. Almost every region of the world has a multilateral environmental agreement. From America, Asian, Europe to Africa and the Middle East, there have been responses to the consequences of Global climate change. For instance, although the European Union is a signatory to many international environmental agreements, negotiated under the auspices of the UN, yet at regional level there is an EU Environment Commission also known as EU Environment (European Commission, DG Environment News, 2012).

Similarly, the African Union (AU) has also responded to Global Climate change. The AU's response to climate change like its EU counterpart follows from its commitment to the international environmental regime (Jo-Ansie van wyk, 2010:13). Responses from Africa include Declarations and initiatives, such as Declaration on Climate Change and Development in Africa adopted by Heads of State during the African Union Summit (Addis Ababa 2007), Action Plan of the Environment Initiative of NEPAD (June 2003), Tunis Declaration and Action Plan adopted at the International Conference on International Solidarity for the Protection of Africa and the Mediterranean Region from Climate Change, Joint Declaration of the Abidjan Convention and Nairobi Convention, Decision 2 on Climate change adopted at the African Ministerial Conference on the Environment, (Johannesburg, 10–12 June 2008) and Algiers Declaration on climate changes in Africa, adopted by the African Conference of Ministers in charge of environment on climate change (Algiers, 20 November 2008) are few among many responses( A Africa-EU Declaration Monograph )

Similarly, there has been inter-regional effort to Global Climate Change. In 2012 an agreement was reached by three Regional Economic Communities (REC) in Eastern and Southern Africa to conduct a five-year climate change adaptation and mitigation program. It was the first climate change agreement between these RECs and this to a great extent reflects the region's commitment to the United Nations Framework Convention on Climate Change (South Africa Development Community News 2012).

**MULTI-LATERAL RESPONSES TO CLIMATE CHANGE:** The term Multilateral Environmental Agreement (MEA) refer to any of a number of legally binding international instruments through which national Governments commit to achieving specific environmental goals. These agreements may take different forms, such as convention, treaty, agreement, charter, final act, pact, accord, covenant, protocol or constitution (United Nation Environmental Programme, 2010:4). One report noted that UNEP identified over 280 agreements which are focused on environmental protection as of December 2009 (UNEP & INTOSAI-WGEA, 2010). Similarly, Mitchell 2003, ecolx.org, A.Najam, M.Papa and N. Taiyab, 2006, Markus Knigge, Johannes Herweg and David Huberman, 2005, Peter Roch and Perrez (2005) cited in Norichika (2007:68) further asserts that:

In the IEA database, 405 agreements and 152 protocols have been identified, modified by 236 amendments bringing the total to 794 MEAs that came into existence between 1875 and 2005; ...The Ecolx project sponsored by UNEP, FAO and IUCN recognizes in total 519 environmental treaties. Other research identifies more than 500 MEAs registered with the UN, including 61 on atmosphere, 155 on biodiversity, 179 on chemicals, hazardous substances and waste, 46 land conventions, and 197 on water issues.

However, since the 1960's when environmental issues have occupied the forefront of international discourse there have been efforts to address it through the United Nations which is the apex intergovernmental organization with widespread influence and highest membership of sovereign states in the international system. The United Nations established United Nations Environmental Programme known as UNEP. UNEP was established as the first attempt of UN to address environmental concerns. UNEP was one of the outcomes of the 1972, Stockholm Conference. The first United Nations Conference on the Human Environment held in 1972, Stockholm, Sweden was attended by 113 delegates. This conference was significant for two reasons. First, the conference raised awareness on the global environment. Secondly, the Stockholm conference secured a permanent place for the environment on the world's agenda and led to the establishment of the United Nations Environment Programme (Meakin, 1992).

According to Bodansky and Sandra 2010, the international response to Global Climate change has in many ways developed along an evolutionary pathway (Bodansky and Sandra 2010:13). Since the 1972 conference, there have been significant international environmental agreements and landmark attempts to address environmental concern. For instance in 1983 the United Nations General Assembly set up a world commission on Environment and Development (the Brundtland Commission). Others significant effort include: 1985 Vienna Convention for the Protection of the Ozone Layer, 1985 Helsinki Agreement, 1987 Brundtland Report, 1988 Montreal Protocol on Substances that Deplete the Ozone Layer, 1988 Toronto Conference on the Changing Atmosphere, 1989 Toronto Economic Summit, Hague Declaration, Noordwijk Declaration, Paris Summit, Langkawi Declaration, 1989 Basel Convention on the control of Transboundary Movement of Hazardous Waste , 1990 Establishment of the International Institute for Sustainable Development in Winnipeg, Manitoba. 1992 United Nations Conference on Environment and Development (UNCED): Convention on Climate Change, Convention on Biological Diversity, Agenda 21, Rio Declaration, Forestry Agreement, Ocean Conference , among several others.

Specifically, multilateral responses to Global climate-change often take place under the UN Framework Convention on Climate Change (UNFCCC), an international treaty created at the Earth Summit in Rio de Janeiro, Brazil, in 1992 and a total of 192 Parties have ratified the UNFCCC (Duruji and Ovasogie, 2012:5-6). The UNFCCC has been followed by the meetings of the Conference of Parties (COP) and there have been sixteen meetings. The sixteenth meeting was held in Bangkok Thailand. Thus, multilateral responses have been characterized by agreements, protocols, meetings, conferences among others.

**NON-GOVERNMENTAL ORGANIZATIONS (NGO) RESPONSES TO GLOBAL CLIMATE CHANGE:** NGO have championed various causes from women rights to child rights. In environment advocacy NGO has played significant roles in the development and enforcement of international environmental treaties. Since the end of the Second World War, NGO has come to play significant role in international affairs. The role has ranged from Agenda Setting, Lobbyist, Conscience keeper, Partner, provision of expertise in environmental governance (Farhana, 2001:151-161).

Over the years, NGO has become visible in global environmental scene. This is evident in disruption and sometimes violent protest at international meetings like Seattle. Thus, Non-Governmental Organizations (NGOs) play an increasingly prominent role in international environmental institutions, participating in many activities such as negotiation, monitoring, and implementation roles that were traditionally reserved to states (Kal, 1997: 720). It is important to note that 1970 marks the rise of environmental NGO such as Greenpeace International; Friends of the Earth established both in 1971. The establishment of International Union for the Protection of Nature known as IUNC, in 1948 with membership from government and NGO's was the launching pad for the active participation of international environmental NGO in Global politics (Farhana, 2001: 50). The contribution of



IUN and its constituent members to the development of Convention such as Convention on international trade in engendered specie of flora and fauna (CITES) the 1971 Ramsar convention on wetland cannot be underestimated.

Also, NGO has gained widespread influence and membership among all countries. The World Wide Fund for nature has around 5 million supporters across the globe with an average income of SFr 470million. Greenpeace International has more than 2.5 million member in 158 countries with annual budget in the region of 30million and Friends of the Earth has 1 million in 58 countries (Farhana, 2001: 151)

**MARKET ORIENTED RESPONSES TO GLOBAL CLIMATE CHANGE:** Another significant response to Global climate is the Market-Based Mechanisms for reducing greenhouse gases, these include: Tradable Permits (Allowances), Tradable Permits (Credits) and Carbon/CO<sub>2</sub> Emissions Tax. These approaches have been proposed, promoted and adopted by some developed countries. Similarly, the international frameworks that regulate the emission of GHGs, together with the emerging voluntary markets for carbon offsets, have created a suite of carbon instruments (Yusuf, 2010:6). The market base approaches aims to make reduction of greenhouse gas profitable by giving same incentives to countries and companies that reduce emission and threat of punishment to those that violate same. This is a carrot and stick approach. Significant advantages of a market-oriented approach include, first; it provides a greater incentive to develop new ways to reduce pollution than prescriptive regulatory approaches. Secondly, Polluters not only have an incentive to find the least cost way of adhering to a standard, they also have an incentive to continually reduce emissions beyond what is needed to comply with the standard. Thirdly, for every unit of emissions they reduce under a market-oriented policy, they have a lower tax burden (National Center for Environmental Economics, 2013)

**OTHER RESPONSES TO GLOBAL CLIMATE CHANGE:** Alternative energy source has also been proposed as a solution to Global Climate Change. This is aim at reducing dependence on fossil fuel thereby decreasing atmospheric composition of carbon which is the chief culprit of climate change. Alternative energy sources that have been proposed, popularized and adopted in some country by individual, companies and group include: Solar, Wind energy , Geothermal energy, Biofuel and Ethanol, Nuclear binding energy and Hydrogen. Significantly, carbon capture and storage (CCS) also has been proposed as a means of reducing atmospheric composition of carbon. CCS involve the process of separating out the carbon dioxide (CO<sub>2</sub>) emitted by power stations (or industrial processes), and transporting it to a place for indefinite storage.

#### **4. CHALLENGES TO GLOBAL CLIMATE CHANGE MITIGATION**

While numerous efforts has been made at mitigating and adapting to the debilitating impact of climate change from multilateral response by inter-governmental institution like the United Nation to responses through regional organization, to unilateral response from nation-states to nongovernmental organization and individual, global climate change remains a global threat with devastating impact on humanity. However, numerous factors have been identified as hindering the effectiveness and efficiency of all climate change responses.

First, major challenge is the proliferation of MEA. It has been noted that Nigeria is the graveyard of international legal framework. When applied in a general context, it appears that protocols are dead long before they are ratified. Najam et al., 2006; Knigge et al., 2005; and Roch and Perez, 2005 assert that there are more than 500 MEAs registered with the UN most of which are regional in scope or nested within a hierarchical structure of agreements. The implication of this proliferation culminates initially in little authority to coordinate activities, secondly, it leads to treaty congestion as well as institutional and policy incoherence, confusion and duplication of work, thirdly, redundancy leads to inefficiency.

Norichika (2007:75) further notes that:

The proliferation of MEAs increases administrative and institutional costs for member states, because it leads to an increased number of meetings, international negotiations and reporting. A survey conducted “revealed” that “the three Rio conventions (climate change, biodiversity and desertification) have up to 230 meeting days annually. It also points out that adding the figures for seven other major global environmental agreements raises the number to almost 400 days. The increasing administrative and travel costs are especially burdensome for developing countries, reducing their participation.

Another fundamental challenge limiting the effectiveness and efficiency of MEA is the interwoven nature between economic development and Global Climate change. This is reflected in the fierce, disparaging campaign against climate science by powerful vested interests and ideologues, apparently aimed at creating an atmosphere of ignorance and confusion (Sachs, 2010). The economic challenge of controlling atmospheric concentration of carbon is exacerbated by the complexity of, the science and notion of uncertainty. This is in spite of the agreements by numerous scientists under the auspice of IPCC of the certainty of climate change. Emphasizing the interwoven nature between nature and market and how politics and market have violated the ethics of science, notable Professor of Environment, Jeffrey Sachs surmises that

The Wall Street Journal, America's leading business newspaper, has run an aggressive editorial campaign against climate science for decades. Major oil companies and other big corporate interests also are playing this game, and have financed disreputable public-relations campaigns against climate science. Their general approach is to exaggerate the uncertainties of climate science and to leave the impression that climate scientists are engaged in some kind of conspiracy to frighten the public. It is an absurd charge, but absurd charges can curry public support if presented in a slick, well-funded format (Sachs, 2010)

Aside the proliferation of MEAs and the intertwined linkage between economic and nature. Another challenge is low level of awareness on Climate Change. According to the UNDP report 2010, the level of awareness about climate change is low. In a study of Indigenous people's perception on climate change and adaptation strategies in Jema'a local government area of Kaduna State, Nigeria by Ishaya, and Abaje (2008) reported that in terms of awareness, 13% of the respondents agreed that there is a high level of awareness on climate change in the study area, 33% of the respondents said they don't know and finally the majority 54% of the respondents declined saying that the awareness on climate change is very weak in the study area and Nigeria as whole (Ishaya, and Abaje, 2008:141).

Fundamentally and superseding other factors limiting the effectiveness and efficiency of responses to climate change is the lack of gender perspective. While several methods and responses have been attempted. It is pertinent to note that all of this represents a male dominated approach to address an issue that they are less vulnerable. While numerous efforts have been made, the problem is not with the prescription but with the diagnosis. For decades, the causes of climate change have been wrong diagnosis. Accusing finger has been pointed to increasing atmospheric composition of carbon while neglecting the fundamental challenge of the unequal relations between men and women. Global Climate Change has not been diagnosed as rooted in a gender gap between those affected by greenhouse and those that address the problem (men).

Essentially, nature is often referred to as a woman that is Mother Nature and metaphorically she has been raped, molested and exploitation by men. Men have run the world economy. Global economy is structured in a way that reveals patriarchal dominance. This is reflected in the number of women who sits on the board of corporation and number of women that are CEO of Major Corporations. Global economy has been dominated by male CEOs for several decades and as such, most of the anthropological activities that caused climate change are caused by men while women are at the receiving end of the consequences. Simply stated,

Patriarchal dominance of Global Society is the cause of Climate Change and women bear the most part of the burden of climate change.

Drawing from the above Climate Change can be seen as the reaction of Mother Nature against long years of indiscriminate use of nature without consideration. Therefore, Climate Change is nature crying out on behalf of women. Nature is seen as a woman because nature is pregnant with great treasures and inexhaustible wealth. Since nature is addressed as a woman, we cannot address nature issues without addressing women issues. Women issues are central to addressing nature and specifically the Global Climate change

#### **5. RECOMMENDATIONS AND CONCLUSION**

Numerous recommendations have been given in previous studies. Most of these studies emphasized the need to include women in the negotiation process. This means ensuring gender balance in the negotiation process, inserting gender clause into existing framework and taking gender consideration into the mitigation and adaptation processes. It is important to note that while all these recommendation have helped in adaption and mitigation, they are merely palliative measures. The fundamental problems have not been solved. Therefore, the following recommendations will not only enhance adaptation and mitigation efforts but it will give a new direction to discourse on Global Climate Change.

First, there is need to see Global Climate Change as a gender issue rather than a scientific issue. In spite of numerous efforts at mitigation and adaption, atmospheric concentration of carbon seemed to have increased in recent times compared to when the problem was first identified. This we can infer means that the fundamental causes which are patriarchal dominance of nature and society have not been focused on.

Moreso, women issues are central to addressing nature and specifically the global Climate change. Mitigating and adapting to the debilitating impact of climate change will require definite commitment to gender rights. Similarly, discussion on climate change must go beyond generalities to specifics which address the issues of reproductive rights of women as it relates to population. The increasing degradation of the environment and the alarming rate at which the earth's resources are continuously depleted by untrammelled exploration call for the need to re-invent the wheel of global economy. It is evident from research that western developed countries did not get their wealth from mining land resources but the mind resources. Knowledge has become the key resource and the only scarce one. Knowledge is the key resource in society and knowledge workers are the hegemonic group in the workforce. It is important to empower women to become knowledge workers so as to fit into the knowledge industry.

#### **REFERENCES**

- Africa EU declaration on climate change. Retrieved on 12 may 2015 from [http://ec.europa.eu/clima/events/0043/africa\\_eu\\_declaration\\_en.pdf](http://ec.europa.eu/clima/events/0043/africa_eu_declaration_en.pdf)
- Akinbami, T. S. (2009). *Climate Change and Energy: Issues, Prospects and Challenges for Sustainable Development in Nigeria*. Presented at the capacity building workshop for house of representatives' committee on climate change and the media Hamdala hotel, Kaduna, may 21 -24, 2009
- Abocholnan, M. (2012). *Tackling climate change problems in Nigeria* Retrieved on 13 March 2015 from <http://www.businessdayonline.com/NG/index.php/analysis/features/37392-tackling-climate-change-problems-in-nigeria>
- Ascelrad, H. (2002) *Between Market and Justice: The Social-Ecological Challenge* in Khan S. R (Ed) *Trade and Environment - Difficult Policy Choices at the Interface*. London: Zed books
- Building Nigeria's response to climate change (BNRCC) project (2012) *Towards a Lagos state climate change adaptation strategy* prepared for the commissioner of environment, Lagos state Retrieved on 12 may 2014 from <http://nigeriaclimatechange.org/docs/lasAug2012.pdf>

- Bodansky, D. and Sandra, O. (2010). *The evolution of multilateral regimes: Implications for climate change*. Retrieved on 12 May 2014 from <http://www.c2es.org/docUploads/evolution-multilateral-regimes-implications-climate-change.pdf>
- Bailey, R. (2002). 'Wilting greens' Reason in Taking Sides. In Easton, T. *Clashing Views on Environmental Issues*. U.S.A: McGraw- Hill pp 20—33.
- Brand, U. and Gorg, C. (2008) *Sustainability and Globalization: A theoretical Perspective* in Jacob.P, Ken .C, Finger. (Ed.) *The crisis of Global environment governance: Towards a new political economy of sustainability*. USA: Routledge pp. 13 -33.
- Climate Change Information Resources- New York Metro Region (2005) *what causes global climate change?* Retrieved May 14 2014 on from <http://ccir.ciesin.columbia.edu/nyc/pdf/q1a.pdf>
- Duruji, M. and Oviasogie, F. (2011). From Kyoto to Copenhagen to Cancun: An Analysis of the Politics Multilateralism on Climate Change. In Aderemi. A. S., Adebowale. K. O, Iromidayo. B., Owolabi .O. and Odeku.O. A. (Eds). *Human Behaviours, Climate Change and Sustainable Development in West Africa* Bonn/Koln Rudiger Koeppel
- Easton, T. (2007) *Taking Sides: Clashing Views on Environmental Issues* (12<sup>th</sup> Ed). U.S.A: Thomas Easton McGraw- Hill.
- Farhana. Y. (2001) *NGOs and International Environmental Law: A Critical Evaluation of their Roles and Responsibilities*, Review of European Community & International Environmental Law Volume 10, Issue 2, pages 149–162.
- Gardner, G. and Prugh, T. (2008) *Seeding the sustainable Economy* in The State of the World Washington: Worldwatch Institute.
- Health and Environment Alliance (HEAL 2007) *Climate Change and Health: "Protecting the most vulnerable"*. Retrieved on 27 May 2013 [http://www.env-health.org/IMG/pdf/2\\_Climate\\_change\\_and\\_Health\\_Protecting\\_the\\_most\\_vulnerable.pdf](http://www.env-health.org/IMG/pdf/2_Climate_change_and_Health_Protecting_the_most_vulnerable.pdf) BRIEFING –
- Ishaya, S. and Abaje, I. B. (2008). *Indigenous people's perception on climate change and adaptation strategies in Jema'a local government area of Kaduna State, Nigeria* Journal of Geography and Regional Planning Vol. 1(8), pp. 138-143.
- Intergovernmental Panel on Climate Change, (2001) *Working Group II: Impacts, Adaptation and Vulnerability* Retrieved March 20 2013 on from <http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=689>
- Jo-Ansie van Wyk (2010) *The African Union's response to climate change and climate security'*, in Donald Anthony Mwiturubani & Jo-Ansie van Wyk (Eds), *Climate change and natural resource conflicts in Africa*. Institute for Security Studies (ISS) Monograph No 170. ISS: Pretoria. 2010. p. 3-22.
- Jekayinfa, A. and Yusuf, A. (2012). Creating climate change awareness on the Nigerian citizens: challenges for social studies curriculum planners and implementors. Edited proceeding of the University of Ilorin and University of Cape Coast joint international conference on climate change and sustainable development.
- Kal, R. (1997). NGOs and International environmental institutions. *Harvard Law School International Studies Quarterly*, pp. 719–740.
- Khan, S. R. (2002). *Trade, environment: difficulty policy choices at the interface* in Khan S. R (Ed) *Trade and Environment - Difficult Policy Choices at the Interface* (Pp 2-5) Zed books London.
- Klaas, V and Mathew, K. (2011). *Green clubs*. Journal of environmental economics and management, pp.309–322.
- Meakin, S. (1992). *The Rio Earth summary of the United Nations conference on environment and development*. Retrieved 12 June 2013 <http://publications.gc.ca/Collection-R/LoPBdP/BP/bp317-e.htm>
- Natural Resources Defence Council (2011) *Climate and Your Health: Addressing the Most Serious Health Effects of Climate Change*. Retrieved on 12 May 2013 from [www.nrdc.org/policy](http://www.nrdc.org/policy)
- Nicholson-Lord, D. (2004). The fewer the better. In: Easton, T. (Ed.) *Taking Sides: Clashing Views on Environmental Issues*. 12<sup>th</sup> Ed. U.S.A: McGraw- Hill, pp234-247.
- Norichika, K. (2007). *Governance with Multilateral Environmental Agreements: A Healthy or Ill-equipped Fragmentation?* In: Swart, Lydia/Estelle Perry (eds.): *Global Environmental Governance: Perspectives on the Current Debate*. Center for UN Reform Education, New York, pp 67-86

- Orimoogunje, O. O. I., Ayanlade, A., Akinkuolie, T. A. and Odiong, A. U. (2010). Nigeria Perception on Effect of Gas Flaring on the Environment. *Research Journal*
- Sachs. J. D. (2010) *Making Sense of the Climate Impasse* access on 12 May 2014 from <http://jeffsachs.org/2010/07/making-sense-of-the-climate-impasse/>
- Luterbacher .U.( 1996) *Problems of Global Environmental Cooperation in International Relations and Global Climate Change* edited by Detlef Sprinz & Urs Luterbacher (second, revised & updated version) PIK Report No. 21 Potsdam Institute for Climate Impact Research
- Natural Resources Defense Council (2011) Climate and Your Health: Addressing the Most Serious Health Effects of Climate Change [www.nrdc.org/policy](http://www.nrdc.org/policy)
- Omoruyi, E. P. and Kunle, O. A. (2011). Effects of climate change on health risks in Nigeria. *Asian Journal of Business and Management Sciences*, Vol. 1 No. 1. pp. 204-215.
- Preet, Nilsson, Schumann and Evenga (2010). The gender perspective in climate changes and global health” Citation: Global Health Action 2010
- Spohr, (2004) focal point gender justice and sustainability/LIFE e.V. [spohr@genanet.de](mailto:spohr@genanet.de) [www.genanet.de](http://www.genanet.de) Frankfurt/M., 19 of August 2004
- United Nation Environment Programme (2005). Register of *International Treaties and other Agreements in the Field of Environment*, available at <http://www.unep.org/law/PDF/INTRODUCTIONadvance.pdf>.
- United Nation Environment Programme and INTOSAI-WGEA (2010) *Auditing the Implementation of multilateral environmental agreements (MEAs).A Primer for Auditors* .Retrieved on 12 March 2013 <http://www.environmentalauditing.org/LinkClick.aspx?fileticket=NrVuKEhCRq8%3d&tabid=128&mid=568>
- United Nations Development Programme (2005) *Resource guide on gender and climate*. (UNDP, New York). Retrieved on 12 march 2013 from
- WHO (2008) *World Health Day 2008 Protecting health from climate change*. Retrieved on 13 may 2013 from <http://www.who.int/world-health-day/previous/2008/en/>
- WHO (2005) *gender, climate change and health* draft discussion Retrieved on 13 may 2013 from [paper.http://www.who.int/globalchange/publications/reports/final\\_who\\_gender.pdf](http://www.who.int/globalchange/publications/reports/final_who_gender.pdf)
- WHO (2003) *Lives at risk: malaria in pregnancy* Retrieved on 13 may 2013 from <http://www.who.int/features/2003/04b/en/>
- Women’s Environment and Development Organization (WEDO) Information Sheet (2007) *Changing the Climate: Why Women’s Perspectives Matter.*, p2 Retrieved on 13 may 2013 from <http://www.undp.org/crmi/docs/wedo-ccwomen-in-2007-en.pdf>
- World Health Organization Europe (2003): Methods of assessing human health vulnerability and public health adaptation to climate change. Copenhagen
- Yusuf, O. (2010). *Legal Profession and Climate Change* being a paper presented on a workshop on Law and Climate in Nigeria organized by Faculty of Law, University of Ilorin on 13<sup>th</sup> May, 2010.