

Climate Change and Environmental Justice Policy: The Niger Delta Region Experience

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Abstract

The world today is faced with the reality of changing climatic conditions and progressively degrading environment that gives every living person great concerns. These concerns include gas flaring, oil spillage, fossil fuel burning, deforestation, floods, air pollution and atmospheric ozone layer depletion, among others, which result in climate change or global warming. The poor and under-privileged people are the main segments of the society affected seriously by environmental degradation and social injustices. Nigeria has attempted to combat the problem of gas flaring, oil spillage and fossil fuel burning and environmental injustice by enacting laws, regulations, policies or adopting international conventions' treaties or agreements, in order to attain clean and healthy environment, but the political will to enforce them has been the challenge. The purpose of this paper, therefore, is to interrogate climate change issues and environmental injustice in Niger Delta Region. The paper adopted qualitative research design for its investigation. Using combination of environmental racism, cumulative and precautionary theories as explanatory framework, data were collected from journal articles, textbooks, United Nations Environmental Programme reports, government records, internet and newspapers. Content-analysis technique was utilized to elicit concepts, which were coded and pattern-matched into themes and categories. Secondary data analysis method was adopted to analyse and interpret data that answer research questions. Results showed that gas flaring and oil spillage impacted on the poor, and under-privileged people, especially from Ogoni communities in Niger Delta Region. These poor and under-privileged people also suffer environmental health hazards and social injustices. The study concluded by suggesting that establishment of environmental justice policy would promote social equity, clean and healthy environment in Niger Delta Region.

Keywords: Climate Change, Environmental Justice, Environmental Degradation, Environment Rights and Social Equity.

Introduction

With shifting seasons, sea levels rising, high temperatures, changing landscapes, increased risks of drought, fire and floods, depletion of ozone layers, stronger storms, environmental degradation, more heat-related illnesses and diseases, and

economic losses, the effects of climate change have become too glaring to deny. Environmentalists have expressed concern that the poor and the under-privileged are the main segments of the society affected seriously by the climate change. Hence, they cry out for environmental justice within these climate conditions and tried to address the problem by way of litigation for reparation and insurgency, requesting government to enact laws, regulations, and policies or obey international convention and treaty in order to attain clean and healthy endowment.

In Nigeria, the Niger Delta Region is highly susceptible to adverse climate changes because of its location to the coastal area of the country. In this region, multi-national oil companies explore and exploit oil and gas. The multinational oil companies involved in oil and gas extraction include Texaco, Chevron, Mobil, Elf, Agis and Shell Petroleum Development Corporation (SPDC). In the course of these exploration and exploitation activities, the environment is degraded and rights of the people violated.

In Niger Delta Niger Region, exploration and exploitation activities of multi-national oil companies on oil and gas have resulted to gas flaring, referred to as Greenhouse Gas (GHG). Greenhouse Gas (GHG) emissions mostly contain carbon dioxide, citrous oxides, chlorofluorocarbon, hydro – carbons, such as – methane, ozone and water vapour, which lead to a rise in the amount of heat from the sun withheld in the earth's atmosphere and radiated back to space (Uyigüe & Agho, 2007). This increase led to the greenhouse gas effect, resulting in climate change. It was estimated that about 45.8 billion kilowatts of heat as discharged into the atmosphere in the region every day (Agboola & Olurin, 2003).

Above all, oil spills and toxic waste was reported because of exploration and exploration activities of multinational oil companies in the region. The impact of the oil spill has led to the pollution of water supply and poisoning of fishing ponds. Lacking any alternative, the indigenous host communities were forced to drink the polluted water. In addition, this has led to environmental degradation and devastation in the region. The consequences of these are: poverty, unemployment, diseases, deaths and health hazards to the indigenes of the region.

The inability of the state to enact a law or policy that compels the multi-national oil companies to respect the peoples' rights and their environment. This government inaction made the indigene of host communities to demand government intervention that would make the multi-national oil companies

accountable for their activities in degrading the environment and violating peoples' human rights. The people, therefore, demand that multi-national oil companies pay restitution for environmental injustice suffered by communities.

Nigeria state and multi-national oil companies' inaction to the complaint and plight of the indigene of the region on the effect of climate change and environmental injustice resulted in emergence of local freedom fighters like Mobilization for Emancipation of Niger Delta (MEND), Niger Delta Volunteer People's Force (NDVPPF), and Movement for the survival of the Ogoni People (MOSOP), among others. Hence, ethnic minority in the oil producing host communities' struggles now focus on how to inject environmental justice and corporate accountability perspective are now the focus of struggle for the people of Niger Delta Region.

The purpose of this paper is to interrogate the impact of climate change and environment injustice in Niger Delta Region, as a result of activities of Multi-national Oil Companies. Specifically, the paper attempts to examine:

- (1) The nature of gas flaring and oil spills that provoke climate change in Niger Delta Region
- (2) Consequences of gas flaring and oil spills on the environment and public health in Niger Delta Region
- (3) Government's intervention and environmental justice movement efforts to combat gas flaring and oil spills that provoke climate change and environmental injustice in Niger Delta Region.
- (4) Suggest environmental justice policy options to protect and preserve natural environment from climate change and promote environmental justice

In the light of this, the following research questions would guide this investigation:

- (1) What is nature of gas flaring and oil spills that provoke climate change in Niger Delta Region?
- (2) What are the consequences of gas flaring and oil spills (climate change) on environment and public health in Niger Delta Region?
- (3) To what extent have Nigerian government and Environmental Justice Movement efforts succeeded in combating gas flaring and oil spills and environmental injustice in Niger Delta Region?
- (4) What is the way forward to combat gas flaring and oil spills (climate change) and environmental injustice in Niger Delta Region?

Against this background, the paper is divided into three sections. Section 1 describes the introduction, purpose, research questions, literature review and methodology. Section 2 examines the nature of gas flaring, oil spills that provoke climate change, analyses the consequences, government and multi-national oil companies' intervention measures in combating gas flaring and oil spills (climate change) and environmental injustice in the Niger Delta Region. Finally, section 3 concludes the paper by suggesting environmental policy options to combat gas flaring and oil spills (climate change) and environmental injustice in Niger Delta Region.

Literature Review

Climate change refers to significant changes of global temperature that occur over several decades. Climate change can be linked as a by-product of globalisation. Its link lies in the fact that climate change is not limited to any specific region but cuts across national boundaries. Hence, scientists refer to it as global climate change because it now embraces all modes of large – scale human tempering everywhere on the planet. Climate change is the synthesis of weather in a given place over a period of at least 30 years (Okali & Eleri, 2004). It is the permanent departure of climate patterns from mean values of observed climate indices (Obioh, 2002). Climate change in this study, therefore, refers to change in pattern of weather and related changes in land surfaces because of environmental degradation and devastation due to oil spills and gas flaring that occurred in Niger Delta region over a period of over the years due to the activities of multi-national oil companies, particularly, Shell Petroleum Development Corporation (SPDC) in Ogoni communities.

The concept of environmental justice emerged in Niger Delta as a result of “the protest by Movement for the Survival of the Ogoni People (MOSOP) for environmental justice over the activities of oil exploitation, exploration and production that have degraded their environment” (Yakubu, 2017, p.2). Environmental justice is principally concerned with “the disproportionate risks to public health suffered by specific socio-economic groups’ (Steel, et al. 2003, p. 263). In other words, environmental justice tries to address the problem on “how environmental hazards affect some people more than others, and how these people react to the misdistribution” (Fagbohun & Ikeji, 2015, p.5).

The exploration and exploitation entail tree –felling, installation of drilling equipment and pipelines, seismic and drilling activities. Others involve deforestation and application of explosives to generate sub-surface maps (Manby,

1999; Ogri, 2001). Among these “seismic activities and drilling constitute the most severe environment-damaging activities” (Yakubu, 2017, p.3). Besides, the resultant environmental degradation from gas flaring, dredging of larger rivers, oil spillage and reclamation of land due to oil and gas extraction across the Niger Delta region cost about US \$758 million every year (Ayanlade, 2015). Regrettably, 75 per cent of the cost is borne by the local communities through polluted water, infertile farmland and lost biodiversity (Ayanlade, 2015). Baird, (2010) reported that between 9 million and 13 million barrels have been spilled in the Niger Delta since 1958” (p.27). Oil spills have had “long term devastating effect on dry lands and freshwater swamps, which hold the means of livelihoods for millions in the Niger Delta Region” (Yakubu, 2017, p.3).

In addition, owing to incomplete combustion, a larger percentage of flared gas released to the atmosphere is methane. The methane is accompanied by the other major greenhouse gas, carbon dioxide, which has effects on human health. Research suggests that “the impact of exposure to these toxics including BTEX generated from flaring gas implies severe health risks, especially to those who live or work in close proximity to the flare sites within the host communities” (Godson et al, 2009, pp. 183-191). Furthermore, gas-flare air pollutants are known to “exhibit some correlation with such diseases as developmental, neurological, and reproductive abnormalities, apart from cancer” (Ndubuisi, 2007, Pp. 18-26). Previous studies indicate complaints of diverse health effects by those who live nearby flare sites; and unfortunately, most gas flaring sites in the oil-bearing communities are situated in close proximity to residences of the local people (Sheppard, et al., 1980). This has over the decades increased the amount of greenhouse gas (GHGs) in the atmosphere, hence, increasing the global warming potential of the region. The World Bank (2004) reported that Nigeria currently flares 75 per cent of the gas it produces. Previous studies “indicate complaints of diverse health effects sites, and unfortunately, most gas flaring sites in the oil-bearing communities are situated in close proximity to residences of the local people” (Sheppard et al, 1980, p.873).

The under-privileged, poor people and marginalized socio-economic groups are often the target of environmental injustice. So, the idea behind environmental justice is to “document inequitable, disproportionate impacts and to advocate measures to mitigate them” (Steel, et. al, 2003, p. 263). The debate about justice in the context of global environmental change is not just about moral standards, it is about fundamental nature and scope of justice. Studies carried out on the Niger Delta reveal that the region is highly susceptible to adverse environmental

changes of its location to the Coastal Region. Besides, the region is susceptible to floods as a result of sea rise and vulnerable to a greater impact to climate change because of oil exploration, exploration activities and gas flaring (GHG) (Oladipo, 1995, Uyigüe & Agho, 2007, NEST, 2009). Gas flaring by multinational oil companies, particularly, Shell Petroleum Development Company (SPDC), Elf and AGIP have contributed to the increase in heat and temperature and rendered some areas almost uninhabitable in the Niger Delta. Acid rain which is associated with the flaring of gas was reported to be “higher in the Niger Delta region and decreases further away from the region and with the problem of coastal erosion” (Uyigüe & Agho, 2007, p. 23).

Niger Delta region often experiences sea level rise and repeated ocean surges, which cause flooding and intrusion of sea water into fresh water source, thereby destroying the ecosystem, affecting agriculture, fisheries and general livelihood (NEST, 2009). Moreover, the pattern of rainfall in Nigeria has changed overtime, which is an indication of abrupt change in climate and poses danger to agriculture and food security in the country (Oladipo 1995) quoted in Uyigüe & Agho, 2007).

Further, “Land Use, Land Use Change and Forestry (LULUCF) impacts on the global carbon cycle and contribute to climate change especially, how they are used” (Watson et al, 2001). The Food and Agriculture Organization (FAO) of United Nations (2009) reported that the rate of deforestation in Nigeria is quite high, and lost 55.7 percent of its primary forests and the rate of forest change increased by 31.2 percent per annum (FAO, 2009). These indicators show that the rate of deforestation is high, thereby capacity of forest to absorb carbon and reduce greenhouse gases (GHG), jeopardizing the environmental conditions, making the poor and marginalized communities vulnerable.

According to Bullard (1993), there are three distinct categories of environmental inequity (injustice) issues that could emerge from the impact of climate change, namely: procedural inequity, which concerns questions of procedural fairness the extent to which governing rules, regulations, and evaluation criteria are applied in uniformity; geographical inequity- concern how some communities or geographical regions receive benefits; and social inequity-how environmental decisions often mirror the power arrangements of larger society that reflect the persistence of racial bias (Bullard, 1993).

From review of previous studies, it is implied that the international community, Nigerian government and multi-national oil corporations seem to agree that gas

flaring and oil spillage need to be curtailed in order to save the environment and ecosystems of local communities in the Niger Delta Region. Efforts to do so, however, have been limited, even though gas flaring and oil spillage have been declared inimical to environmental survival and health. Hence, current inquiry is important in the search for social justice not only from governments in terms of regulatory framework, but multi-oil companies to be held accountable for their abuses and pay restitution to communities that have been devastated by their exploration, exploitation, drilling and production activities.

Theoretical Framework

Theories of ecological justice is not only about securing a fair distribution of goods but treating others fairly, recognising their membership in the moral and political community, promoting the capabilities needed for their functioning, flourishing and ensuring their participation in political decision making (Schlosberg, 2007). While this theory recognizes the notion of social justice among humans in environmental issues, it also must extend to justice toward the nation. In other words, domination and oppression should be the major focus of justice and by extension the ecological justice. Though, this theory looks at the environmental issues, it is not relevant for this study.

Utilitarian theory's thrust is that private rights may be modified for the public good. The utilitarian measures the burden against the benefits, and chooses that course of action with the greatest balance of benefits over burdens. For example, the right to a healthy environment benefitting the majority shall be seen to supersede the property rights of a company to site hazardous facilities on its own land, irrespective of economic benefits. This theory is relevant for the study.

Another theory that touches on environmental justice is environmental racism paradigm. Environmental racism is the systematic exclusion of people based on colour from environmental decisions affecting them. It seeks to link racism with environmental actions, experiences and outcomes. It arises from the interaction of "three factors namely: pre-judicial belief and behaviour; having the personal and institutional power to enact policies and actions that reflect one's prejudice; and Privilege – being given unfair advantage over others and the ability to promote one group over another" (Fagbohun & Ikeji, 2015, p. 51).

In this paper, environmental Racism perspective or paradigm is relevant to the study and adopted as framework of analysis. This theory is justified because results of the study would influence the multi-national oil companies to stop

degrading the environment and violation of peoples' rights in Niger Delta Region and also make the Federal Republic of Nigeria enact policy or law that will compel them to respect peoples' rights and the environment.

Other theories that touch on living conditions of people are cumulative impact and precautionary theories. The cumulative impact theory looks at risk in combination with a complex context of peoples' lives realities. It takes a pragmatic view of the realities of the living conditions of the people. This is where the idea of environmental impact assessment programmes come into play (Fagbohun & Ikeji, 2015). This theory is relevant for the study and would complement the environmental racism paradigm as framework of analysis on oil spills in Niger Delta Region.

In this paper, environmental Racism perspective or paradigm is relevant to the study and adopted as major framework of analysis. This theory is justified because results of the study would influence the multi-national oil companies to stop degrading the environment and violation of peoples' rights in Niger Delta Region and also make the Federal Republic of Nigeria enact policy or law that will compel them to respect peoples' rights and the environment. To complement this theory is cumulative impact theory. As environmental impact assessment programme is part of cleaning up oil spills in Niger Delta Region, it serves as part combating environmental degradation and devastation caused by oil spills and gas flaring activities of multi-national oil companies.

Methodology

The paper adopted qualitative case study research design for its investigation. Data were collected from secondary sources, such as: extant literature, journal articles, textbooks, websites, internet, government records, reports, newspapers and magazines. Content – analysis technique was used for data collection and analysis. Content-analysis in this context entailed deciding on textual and written documents to be analysed from the secondary sources selected. Then, developing and defining categories into which the data were coded. The categories included key themes, such as: climate change (gas flaring, oil spills, resulting in environmental degradation) and environmental justice. These categories were borne out of empirical literature review, from data and theory. Secondary data analysis method was subsequently adopted to develop plausible set of interpretations and answers to research questions. This methodology was justified because it “gave deeper insight and understanding of underlying attitudes and behaviours of multi-national oil companies' exploration, exploitation, drilling and

production activities in Niger Delta Region and gain rich information on the research problem” (Bryman & Teevan, 2005, p. 318; Johnson, Reynolds, & Mycoff (2008, p. 147).

Results and Discussion

Nature of Oil Spills and Gas Flaring (Climate Change) Issues in Niger Delta Region

The study revealed that the exploration, exploitation, drilling and production activities of multinational oil companies in the Niger Delta Region devastated the environment affecting the farm yields and depleting fish – the mainstay occupations of the people, particularly in Ogoni communities. This resulted in poverty of the people and health hazards of the indigenes of Niger Delta Region. Nsisioken Ogale community in Ogoni Community was affected by the oil spills from SPDC exploration, exploitation, drilling and production activities. Besides, destroying pipelines through stealing crude oil through what is often referred as ‘bunkering’ is also another challenge of oil spills. The oil spills affected drinking water supply. The people in the community also lost arable lands and main occupation of fishing. This resulted in environmental degradation and deepen poverty among the inhabitants (Manby, 1999).

Besides, United Nations Environmental Programme’s impact assessment report, revealed that oil spills occur daily with over 1000 spills per annum from obsolete crude oil pipelines, which spew oil into rivers streams farmlands and neighbourhood in Niger Delta Region. The resultant pollution and contamination by hydrocarbon and other substances, such as benzene – cancer causing substance found in drinking water in Ogoni land, for example, affect the health of the people, their farmland, rivers where fishes are caught, creating poverty and food insecurity (UNEP Report, 2011). Furthermore, the clean-up process (spade and bucket technology) remains the only option for scooping and setting ablaze recovered hydrocarbons.

Moreover, the cumulative effect of extraction activities of gas flaring over the years (1956 to date) impacts on environmental degradation and devastation. According to the United National Environmental Programme (UNEP, 2011), environmental assessment report on Ogoniland, about 1.8 billion cubic feet of gas is flared daily resulting in about 45.8 billion kw of heat released into the atmosphere. Nigeria has many gas flaring sites located in Nigeria Delta region – the highest emitters of Greenhouse gas in Africa. Greenhouse gas emissions (GHG), consists mostly of carbon dioxide (Co2), nitrous oxides,

chlorofluorocarbon, hydrocarbons, such as methane, ozone and water vapour. Agboola & Olurin, (2003) noted that this increase in temperature led to greenhouse effect which is one of the causes of climate change. Besides, acid rain which is associated with the flaring of gas was reported to be “higher in the Niger Delta region and decreases further away from the region” (Uyigüe & Agho, 2007, p. 23). A total gas flared total 271.38 billion standard cubic feet of gas, and valued at US \$518.33 million as against US \$868.8 million lost to gas flaring in 2014(NNPC, 2015). Gas flaring has been illegal in Nigeria since January 1984, yet multi-national oil companies continue to breach this zero-gas flaring policy established in 1984 (FGLAGR Act, 1979). Even with the intervention by World Bank, end to gas flaring has been shifted to 2030 in favour of multi-national oil companies (SDGs, 2016), which makes the plight of indigenes of oil and gas producing communities devastating.

Consequences of Gas Flaring and Oil Spills on Environment and Public Health in Niger Delta Region

Oil spillage and gas flaring have major impacts on the ecosystem into which it is released. Oil spills destroy crops and aquacultures through contamination of the groundwater and soils. Some specific major disasters include the killing of 180 people, which occurred as a result of the extensive 1980 Texaco spill that poisoned streams serving as drinking water sources and those that have killed children, leading to the hospitalization of about a hundred other villagers, due to the consumption of water contaminated by oil leaks (Manby, 1999). Furthermore, the ruinous and shocking effects of environmental pollution obtained from analysis of water samples from Luawic community in Ogoni in 1997 showed that hydrocarbon content of the samples was 18 parts per million (ppm), 360 times the tolerable limits for drinking water by the European Union (EU) standards. In addition, the samples from Ukpeleide Ikwerre contained even higher amounts 34 ppm, 680 times the acceptable limits by the EU specification (Manby, 1999). According to UNEP report (2011), the clean-up and remediation which will last between 25-30 years, cannot be realized. Though, the sum of US \$1 billion has been recommended for Ogoniland’s oil spills, for example, in the initial stages of the clean-up, the actual cost of clean-up, remediation and compensation for lost livelihoods remain uncertain (UNEP, 2011; www.foei.org).

Owing to incomplete combustion, a larger percentage of flared gas released is methane. This has over the decades increased the amount of greenhouse (GHGs) in the atmosphere. Hence, increasing the global warming or climate change potential of the region. Research suggests that “the impact of exposure to these

toxics including BTEX generated from flaring gas implies severe health risks, especially to those who live or work in close proximity to the flare sites within the host communities” (Godson, et al., 2009, P. 183). Furthermore, “gas flare air pollutants are known to exhibit some correlation with such diseases as developmental, neurological and reproductive abnormalities apart from cancer” (Godson et al., 2009, p. 183). Previous studies indicate “complaints of diverse health effects by those who live nearby flare sites, and unfortunately, most gas flaring sites are close to where local people live (Sheppard et al, 1980). Other multi-national oil companies’ operational activities and their impact on environment and public health are displayed in the table 1. below:

Table 1: Oil operations activities and potential impacts on the environment

Oil Operations	Potential Impacts on the Environment
Exploration iii. Geophysical iv. Geological Survey v. Drilling	- Destruction of vegetation and farmlands/ human settlements - No pollution and vibration seismic shooting - Accumulation of toxic materials from drilling materials, oil pollution of the sea, beaches or land - Destruction of breeding and spawning grounds from some marine organisms. Alteration of the taste of fishes, pollution of underground water
Production/ Procession a. Platforms and Tank farms b. Gas Flaring	a. Water pollution from long-term cumulative effects of produced water (with high salinity) Water and land pollution from sanitary - Air pollution from gas and oil processing and faring production of heat - Kills vegetation around the heart area and suppress the growth and flowering of some plants diminish and reduce agricultural production destruction of mangrove swamps and salt march.
a. Tanking Loading b. Locations and offshore	- Water pollution from ballast and tank washing - Deck drainage and spillage during loading operations will all its accompanying effects on the fauna and flora destruction of seabed by dredging
Storage Depots	Land pollution from effluent water and solid water of cans and rums. Air pollution from storage tanks destruction of chemical farmland for the establishment of the storage depots. Water pollution from the gaseous fumes during loading

Transportation	- Destruction of seabed by dredging for pipeline installation sedimentation along pipeline routes, water pollution from consequences of leaks from fracturing breaking of pipe, caused by metal figure, trawlers and dredged, seafloor failures or sabotage. Air pollution by transport tankers. Destruction of environmentally sensitive area e.g. Lowland where estuaries wetland dune exist. Erosion and flooding
Refinery	- Water pollution from effluents, which contain wide range of organic and inorganic pollutants such as phenols, hydrogen sulphide, ammonia, oil and greases, phosphates, cyanide and toxic metals.
Health Effect	- All the above have serious adverse effect on health

Source: Babalola, M.A. (1985) Impact of Oil exploration on the Environment, quoted in Folarin, Ogundele & Alaka, (2007, p.304)

Furthermore, the study revealed that there are human rights violations and extra-judicial killings of indigenes of oil producing communities instigated by violent conflicts between Niger Delta militants' insurgency and security operatives, on the other hand, shielding the state and multi-national oil companies since 2016. Renewed violent conflict of Niger Delta militants has resulted in destruction of oil pipelines and facilities which has had serious loss in national revenue (UNEP report, 2011). Moreover, there have been community protests, civil disobedience, and picketing which have resulted to conflict with state's security operatives' that tried to brutal force without any success. The Niger Delta Region faced without concrete scientific, political and economic solutions has remained a flashpoint in Nigeria's political landscape.

Environmental Justice Issues in Niger Delta Region

In Nigeria, the history of environmental justice is traceable to the Niger Delta region struggle of 1990, when Ogoni people through the "Movement for the Survival of the Ogoni People (MOSOP) issued the Ogoni Bill of Right to the Federal government of Nigeria" (Fagbohun & Ikeji, 2015, p. 34). The emergence of this movement led to the ejection of Shell Petroleum Development Corporation in 1993. The face-off between MOSOP and the multi-national oil companies (SPDC and Chevron) on one hand and the killing of four suspected Ogoni people alleged to be traitors to the people, on the other hand, led to the execution of 9 Ogoni indigenes, including Ken Saro-wiwa (environmentalist/writer) suspected to be killers of the former. The public outcry in both national and international arena led to the issue of environmental justice coming into the rubrics of political discourse and consequently, led to emergence of Environmental Rights Action

(ERA) in 1993. The new wave of environmentalism associated with social equity is associated to what is tagged “environmental justice movement” (Steel, Clinton & Lovrich, 2003, p. 262). Environmental Justice Movement (EJM) is concerned with distributive and corrective justice. While distributive justice addressed who should get what, corrective justice was concerned with the way individuals are treated in social transaction. The aim of the movement is to remedy social inequities as it pursues environmental equity (Fagbohun & Ikeji, 2015).

Reasons have been given for the inability of victims of environmental injustice to access justice. With regards to protection of environmental rights in Nigeria, though NESREA Act 2007 makes adequate provision on environmental issues, political will to enforce it has been the challenge. Besides lax lack of environmental policies and laws, lack of independent court systems and lack of political will to enforce compliance of extant legal provisions at the national and global level. The following are other challenges faced by victims seeking justice to hold multi-national oil companies accountable for their human rights violations and payment of reparation:

(1) Lack of Legal or Policy Regulatory Framework

There has been a consensus that the state has failed in terms of establishing a regulatory framework. There is a vacuum in regulatory framework in Nigeria for environmental degradation issue. This has been exploited by multi-national oil companies to degrade or continue to degrade the environment with adverse consequences on the health and well-being of citizens of affected area, mostly poor communities who cannot speak out effectively.

(2) Lack of access to Courts

One of the challenges of environmental justice is the extent to which the victims or political victims of environmental injustice can access the courts to enforce their rights. Access to justice is very crucial for enforcement of environmental injustice. Certain issues can affect access to court such as:

- High legal costs – the multi-national oil companies have the resources to defend cases instituted against them to any levels compared to poor victims from rural communities.
- Locus Standi principle – The problem of “Locus Standi” has created loophole for multinational oil companies to exploit and escape conviction, if other individuals, other than victims institute the legal action. However, the problem of Locus Standi has been whittled down in Nigeria by Fundamental Rules Enforcement Procedure, “a legislation that gives

ample room for non-victims to sue on behalf of victims and potential victims” (Fagbohun & Ikeji, 2015, p. 92). For victims to realize this, public education and enlightenment is required.

- Non-Justiceable of Section 20, Chapter II of Nigerian 1999 Constitution. The fundamental objectives and Directive Principles of State Policy, states that:

The State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria (Nigerian Constitution, 1999).

This statement of directive principles and policy is only to guide the government in providing safe and healthy environment for its citizens. This provision does not create a legal right or remedy that arises or accrues from failure of government to safeguard or improve the environment safe and healthy.

Burden of Proof by victims

This could affect victims as they may not afford the costs or high technical experts to testify on their behalf, while the multi-national oil companies can afford to procure experts who can testify for them.

Subject of jurisdiction

Some victims of environmental change impact erroneously institute their cases in State High Courts, instead of Federal High Court as stipulated by 1999 constitution, thereby making their cases liable to being struck out for lack of jurisdiction.

Lack of passage of Petroleum Industry Bill

The Petroleum Industry Bill before the National Assembly would have addressed several environmental issues, chiefly the issues of benefits to host communities have been affected by politics. Section 126 and 127 of the bill provide “10% for petroleum Host community fund, which for development of the economic and social infrastructure of the communities in the oil producing communities” (Fagbohun & Ikeji, 2015, p.15). This has attracted politics and opposition as opponents to the bill claimed that the Ministry of Niger Delta and Niger Delta Development Commission (NDDC) have provided enough compensation to Niger Delta Region. Besides, they now re-define “Oil Host Producing Communities” to include “any community” wherever oil facility is located in Nigeria. This means that “communities where pipelines are located or just merely pass through are regard as oil bearing and host communities” (Fagbohun & Ikeji,

2015, p.5). This introduction of politics into the passage of Petroleum Industry bill has compounded the issue and deny payment of reparation to communities that actually suffered from environmental degradation and health hazards as a result of gas flaring and oil spills.

Though, the Petroleum Industry bill was now re-named as Petroleum Industry Governance and Institutional Framework Bill, (2015) and enacted into law, but it is in piecemeal. The bill has been watered down into key areas, namely:

- Petroleum Fiscal Framework Bill,
- Petroleum Industry down – Stream Administration Bill;
- The Petroleum Industry Revenue Management Framework Bill; and
- Petroleum Host Community Bill (PIGB, 2018).

Though, the Petroleum Industry Governance Bill (PIGB) was passed on May 16, 2018 by the Senate, it deals only with governance and institutional framework of Nigeria Petroleum Industry. This is only one aspect of Petroleum Industry Bill (PIB, 2015). The most important aspect that benefits the indigenes of oil producing communities and protects their right is the “Petroleum Host Community Bill”, which is yet to be enacted into law. So, the payment of reparation for victims of environmental injustice would always be a difficult nut to crack because of the nature of judicial system and high cost of litigation which often incapacitates the poor and marginalized socio-groups.

Government’s Intervention Measures and Environmental Justice Movement’s Efforts to Combat Climate Change and Environment Injustice

Worried by the militants’ insurgency and destruction of oil pipelines in Niger Delta Region because of violent protests of people of Nigeria Delta Region on the activities of multi-national oil companies on environmental degradation and devastation, government responded with certain measures to combat climate change and environmental injustice. They include:

1. Creating Special Climate Change Unit (SCCU)

Nigerian Meteorological Agency (NIMET) is saddled with the responsibility of providing long-term systematic observations on climate indices and atmosphere compositions. NIMET is the nation’s local point and cooperate with United Nations conventions to combat climate change.

Moreover, the federal government of Nigeria created Special Climate Change Unit (SCCU). Under the Federal Ministry of Environment, SCCU is to coordinate

climate change issue in Nigeria. Nigeria also opted for the implementation of the Clean Development Mechanism (CDM) in order to mitigate the effects of gas flaring (Economic Confidential, June, 2009). The Clean Development Mechanism (CDM) is one of the flexibility mechanisms under the Kyoto Protocol which allows government or private entities in industrialized countries to establish projects with low GHG, otherwise, known as Emission Reduction (ER) projects in developing countries and receive certified Emission Reductions (CERs) referred to as carbon credits from the project activity. The Kyoto protocol mandates industrialized countries to reduce their GHG emissions by 5.2% of the levels in 1990 during the first 2008 to 2012. The developing countries Nigeria included, technically, have no GHG emissions restriction, but have financial incentives to develop GHG emission reduction (ER) project in exchange for carbon credits.

2. Oil Spills and Gas Flaring

Nigerian regulations of the oil industry are weak and rarely enforced allowing, in essence, the multi-national oil companies to self-regulate (Baird, 2010). On January 30, 2013, a Dutch court ruled that SPDC is liable for the pollution in the Niger Delta. SPDC also agreed to pay \$80 million to the Ogoni Community of Bodo for two oil spills in 2008 after a court case in London ((Okolobo, 2015; Ridderhof, 2013)

Nigeria has made efforts to facilitate reduction and ultimately eliminate gas flaring. Section 3 of the Associated Gas Re-injection Act (AGRA) Cap A25, Laws of the Federal of Nigeria 9LFN), 2004, makes it illegal to flare gas without the consent of the Minister of Petroleum (Umukoro, 2008, p. 7). The Act imposes a rather less deterrent penalty of N10 for every 1000 standard cubic feet of gas flared and the oil field where the gas is being flared may be shut down. Since the legislation was passed, it has been less effective in deterring multi-national oil companies from flaring gas and volume of gas flared daily is about 2.5 b cuff, (Umukoro, 2008).

3. Protection of environmental rights and justice

With regards to protecting of environmental rights in Nigeria that has no legislation, Nigeria has recently enacted National Environmental Standard and Regulations Enforcement Agency (Establishment) Act No. 25 of 2007. This law makes adequate provision to cover environmental justice issues (NESREA, 2007), but political will to implement it has been the challenge. Besides Nigeria's

oil Pipeline Act, also made adequate compensation for oil spills, according to judgement in United Kingdom Court.

Moreover, the problem of “Locus Standi” has been whittled down considerably in Nigeria by the Fundamental Rules (Enforcement procedure) 2009 (FREP, 2009). This legislation gives ample room for non-victims to sue on behalf of victims and potential victims. Finally, the African Charter of Human and Peoples’ Rights (ACHPR) has made the right to a healthy environment legally enforceable and Nigeria adopted it (FREP, 2009, Fagbohun & Ikeji, 2015, p.93).

These mitigation and Adaptation measures by government motivated the litigation brought by people of Bodo community in Gokana Local Government Area of Rivers State against Shell Petroleum Development Company (SPDC) in 2012 in UK Court to ameliorate the effect of oil spills that had occurred in the area over the years (Okolobo, 2015; allafrika.com).

4. Niger Delta Clean-up policy

Niger Delta clean-up policy was based on United Nations Environmental programme (UNEP) report of 2011. The federal government of Nigeria has undertaken some measures to combat oil spills arising from oil and gas exploration and exploitation by the multi-national oil companies.

The Federal government commissioned the United Nations Environment Programme (UNEP) to undertake environmental impact assessment of Ogoniland in August 2011. The UNEP (2011) made some recommendations to the oil and gas industry, to federal government of Nigeria and communities to begin a comprehensive clean-up of Ogoniland, restore polluted environments and put an end to all forms of ongoing oil, contamination in the region (UNEP Report, 2011). Following this UNEP report, the Federal government Shell Petroleum Development Corporation (SPDC) and other joint venture partners have accepted to implement the report. They have agreed to create Ogoni Restoration Authority, environmental restoration fund, establishing institutional and regulatory framework and make efforts to achieve rehabilitation of environments and monitor environmental health against oil spillage (UNEP, 2011).

5. Global Conventions/Agreements/Treaty to cut greenhouse gas (GHG) emissions

Nigeria participates actively in the coalition of developing countries within the framework of the G77 + China. This group seeks ambitious emission reduction by

developed countries that bear the historical responsibility of accumulated emissions of these gases in the atmosphere. Consistent with the provisions of the convention, this group of countries also seek the transfer of financial resources and technology from developed to developing countries to enable them adapt to the impacts of climate change and meet the cost the transition to a low-carbon economy.

The Federal government adopted the United Nations Framework Convention on Climate Change (UNFCCC) agreement signed in Paris in 2015 to reduce Greenhouse gas (GHG) emissions. Nigeria is one the signatory to the UNFCCC and has ratified the Kyoto Protocol. Since the first conference of Parties in 1992, Nigeria has participated actively in the development of the international regime regulation of emissions of greenhouse gases into the atmosphere. The major aim of the agreement is to “limit global average temperature to well below 2oC above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5oC above pre-industrial levels” (Anyago, 2016, p.28).

Conclusion

Climate change and environmental justice have been multi-faceted problems that are now occupying major attention in climate change discourse. The climate space is large and its consequences are touching on the environment and human health. In this regard, victims of environmental degradation caused by climate change demand that the federal government of Nigeria enact into law a regulatory framework on climate change and environmental injustice. Environmental injustice in Niger Delta include lack of political will to compel multi-national oil companies to protect the environment and uphold human rights; inability to gain access to courts for justice and payment of reparations to victim of environmental injustice. Advocates and victims of climate change argue that environment justice is achieved when everyone, regardless of race, culture or income enjoys the same degree of protection from environmental and health hazards and equal access to the decision – making process. This would help promote a healthy environment in which to live, learn and work.

Against this background, many intervention measures have been made at the global and national levels to combat climate change. Climate change is brought about in Niger Delta Region by greenhouse gas emissions into the atmosphere as a result of human actions and environmental degradation through oil spills. Since climate change is a global problem, intervention measures are tried through various means globally and nationally. Combating climate change requires

international cooperation and its ultimate goal is to mitigate climate change and adapt measures that address environmental injustice. In addition, Nigerian government's policy and action plans have continued to be based on international cooperation and agreements, such as Koyoto Protocol and United Nations Framework Convention on Climate Change (UNFCCC) agreement in Paris in 2015. These agreements set legally binding commitments to Nigeria being a signatory to lower greenhouse gas emission and address environmental injustice. Government has also set up ministerial committee on climate change and institutional machinery to govern its implementation. Moreover, United Nations Environment Programme (UNEP) was commissioned in 2011 earlier to conduct environmental impact assessment in order to clean-up contaminated Ogoniland and oil spillage. This, added to government's efforts on combating environmental degradation and injustice meted to indigenes of oil and gas producing communities. The federal government of Nigeria through Nigerian National Petroleum Corporation has disbursed \$180 million as take-off fee for Ogoni oil pillage clean-up. Nigeria also created Niger Delta Ministry and Niger Delta Development Commission (NDDC) in 2000 to address environmental and ecological impacts gas flaring and oil spills have had in the Niger Delta Region. Governmental and nongovernmental organizations have also utilized technology to identify the source and movement of petroleum spills (Nwilo & Badejo, 2007). Despite all these approaches, gas flaring, oil spillage and environmental injustice still remain one of the unresolved issues in Niger Delta Region. The following specific and general recommendations, therefore, would contribute immensely in combating gas flaring and oil spillage (climate change) and environmental injustice in Niger Delta Region.

Recommendations

1. Establishment of World Environmental Court

Access to court for victims or potential victims of environmental injustice is usually dependent on the inter-section of two factors, namely: legal rights recognized in a given society and the procedural gateways created by law for the enforcement of such rights. To seek environmental justice is very frustrating to victims and very little has been achieved. In Nigeria, the judiciary is not totally independent. Therefore, to hold multi-national oil companies accountable to human rights violations and pay reparation, it is essential that "World Environment Court" (WEC), with international jurisdiction be established to take on cases of victims against environmental injustice. In addition, global treaties and agreements should include all aspects of human and environmental rights violations and binding clauses with enforcement authority. A judicial

corresponding court should be established and should have jurisdiction over not only state parties, but also non-state petitioners and defendants. Reparations is a crucial issue in the struggle for environmental justice against violators.

2. Development of Environmental Policy

The federal government should initiate and develop environmental justice policy. Environment justice is central to the eradication of poverty and enthronement of genuine peace and prosperity. Nigeria should prioritize the “protection and preservation of the natural environment to save the poor from falling into further poverty” (Fagbohun & Ikeji, 2015, p.5). To accomplish environmental equity, full representation of minority groups and the poor should be involved in the policy-making process. They should participate in decision-making process on gas flaring and oil spillage and pollution prevention through membership of traditional environmental groups and government legal provision required for such participation.

3. Petroleum Host Community Fund

The Petroleum Host Community Bill currently before the National Assembly should be approved and passed into law, so that petroleum Host Community Fund of 10% be established. This will enable multi-national oil companies to pay monthly fee for oil exploration, exploitation, drilling and production in Niger Delta Region. This would boost economic and social infrastructural development of oil producing communities and reduce the level of poverty in the Niger Delta Area.

4. Green Climate Fund (GCF)

Nigeria should endeavour to incorporate global agreements as part of regulations or policy to combat gas flaring and oil spillage and address environmental injustice. Being part of 194 countries which are associated to United Nations Framework Convention on Climate Change (UNFCCC of 2010), where Green Climate Fund (GCF) mechanism was established for funding mitigation and adaptation, GCF would help Nigeria limit or reduce their greenhouse gas emissions and adapt climate change impacts on human health. This would promote a paradigm shift to low-emission and climate resilient development.

5. Oil – Spill Clean-up Option

Nigeria should incorporate UNEP (2011) Report into climate change and environmental justice policy. Government should also stop oil spillage and routine gas flaring that impact on the environment and public health. Satellite

imagery combined with the use of Geographical Information Systems (GIS) can be put to work to quickly identify and track oil spills. To hasten the clean-up of spills, regional clean-up sites along the problem areas could help contain spills more quickly. To make these tasks feasible, more funding must be provided by the stakeholders of the oil industry.

6. Renewal Energy Option

Fossil fuels burning should be banned. Most air pollution that are harmful to human health results from burning of fossil fuels one of the causes of climate change. Air pollution results from the burning of fossil fuels, such as coal, oil, natural gas, gasoline, wood and vehicles fumes. Therefore, fossil fuel burning should be banned. Nigeria does not need coal – powered plants. Fossil fuel does not just pollute the environment, it is the major cause of ill – health around the world. Renewal energy, (solar, wind and water energy) is the way to go in line with cop 21 and global pathway to energy sustainability. This will help to not only offset – carbon emission but also improves the quality of life by saving the environment from degradation. Use of firewood or coal should be discouraged. Stove use should be encouraged by giving bonus to non-usage of firewood.

7. Reforestation and “Climate Smart” Agriculture

The government should also prevent illegal deforestation as well. Greater attention should be shifted towards the system of efficient land use, addressing the problem of deforestation and the promotion of reforestation and conservation of natural habitats because of their great capacity to absorb carbon dioxide and other related greenhouse gases.

8. Public Awareness on Climate Change

The public should be enlightened on risks of natural hazards to enable them be prepared and aware of mitigation efforts. Public education or enlightenment should focus on causes, impacts and solutions of climate change.

9. Market –based approach to climate change and environmental injustice

Government should change its response to environmental problems through command-and-control regulations that prohibit or require certain actions, but opt for market –based approach that creates appropriate incentives for either regulated industries or for legislators (Dobra & Wendel, 1999, p. 85). Market-based environment policy is aimed at restructuring markets and property rights system for a more systematic attainment of environmentally desired outcomes. Its

advantage “include: cost – effectiveness, socially desired outcomes and administrative simplicity” (Palmisano et al. 1994, pp. 11-12; Niskanen, 2001). Use of free market-based incentives can be used to stimulate mitigation of climate change gas flaring, oil spillage and fossil fuel burning as they impact on environment and public health.

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