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VIOLENCE AS ADAPTATION: ON CLIMATE CHANGE AND THE CLIMATE OF INSECURITY IN THE **NIGERIA'S NIGER DELTA**

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ABSTRACT:

The phenomenon of oil exploitation and the pervasive deprivation in the Nigeria Niger Delta are eloquent demonstrations of the link between environmental problems and social injustices. Conflicts, sometimes of a significant proportion and criminal dimension, have erupted in a bid to protest the observed level of deprivation and poverty. This paper examines the relationship between oil exploitation in the Niger-Delta vis-à-vis the deprivation and poverty suffered by its people. It adopts a spatio-temporal review of oil resource exploitation in juxtaposition with the quality of life of people in the area. The paper is structured to examine the political economy of resource exploitation and utilization in an oil rich country like Nigeria. It posits that more than anything else, the causes (remote and immediate) of conflicts and strife in Nigeria revolve around what the land contains. It had turned an otherwise peaceful people into communities of violence and thus making the Nigerian nation to loose most of its adhesives of cohesion and integration. The structure of the paper includes an introduction and the background of Nigeria as containing groups of autonomous people brought together during colonialism through a geographical marriage of inconvenience. The section also examines the rich ecological resources of the country. The second section is an overview of environmental resource exploitation and distribution as well as the principles underlying these. In the third section, the paper examines the phenomena of poverty and deprivation in the country particularly in the oil bearing Niger Delta. Using a welfarist perspective, the paper reveals a lopsided resource distribution that suggests an inversion of benefits the higher the level of environmental resource available to a region thus establishing the inevitability of conflict and violence among the deprived communities. As a way forward, the paper canvasses for a shift in the paradigm of resource distribution for the adoption of social and environmental justice. The benefits of this paradigm are overwhelming but the challenge for the country is the taming of the bourgeoning capitalism and its class structure. To achieve justice-social and environmental- orientation of leaders and followers must change. This shift is urgently required as a reconciliatory paradigm in Nigeria.

Keywords: Climate Change, Insecurity, Environmental Justice, Niger Delta, Nigeria.

INTRODUCTION

The relationship between humans and their environment now attracts greater attention than the proportion ever imagined even by the most innovative researcher a decade or two before. Environmental concerns, today, had broadened beyond the mundane focus on search for food and energy resources to include wider and global issues about global warming and its consequences, about biodiversity and its accelerating loss, and about the overall state of the environment and its sustainable use (Matter and Chapman, 1995).

At the hearth of these concerns is the consequences of resource use and the inability of humans to procure, simultaneously from the environment, their life support systems as well as the required ecological balance in the affected areas on one hand, and to strike a strive-free exploitation strategies and methodologies that are able to reduce to the barest minimum, the side effects of resource exploitation and the inhabitants of the local area.

In essence, with equity and social justice principles being relegated to the *afterthought*, the consequence is that where environmental resources are in abundance, the four 'horsemen of the apocalypse'-war, disease, hunger and displacement are the most discernible characteristics of the inhabitant. To say the least, this is the situation in most ecological resource producing countries of developing countries, particularly Africa. Thus, up to twenty percent of Africans live in countries seriously ravaged by war or state violence with consequences for refugee flows, rising military expenditure, damage to transport and communication facilities, reduction of trade and investment and diversion of resource for development (Nalfziger, 2006). This is because a civil war in an African country, caused by whatever reason, lowers its per capital output by 2.2% annually and results in human carnage such as to the tune of 800,000 deaths estimated from the Rwandan genocide. This represented the highest non-natural causality rate in history (WorldBank, 2000). For most parts of Africa, ecological resource is both a major cause of ecological development and a huge curse to human and economic development.

This paper attempts a time-space review of oil resource exploitation in Nigeria's Niger Delta It juxtaposes this with human quality of life in the area. The idea is to establish a critical link between environmental resource and multiple deprivations as well as the role of equity and social justice in restoring harmony between nations that are, though autonomous, but brought together by common environmental properties like oil. Finally, the paper proposes environmental justice as an urgent reconciliatory paradigm for Nigeria and other African countries where their natural resources still constitute their major source of conflict.

THE NIGERIA NIGER DELTA: THE PLACE AND PEOPLE

The existing political map of Nigeria is a western creation, drawn with little regards to the boundaries of the historic ethnic colourations of the population of the subjects. This creation is therefore bedeviled by a mirage of internal tension and critical issues of stability that more often expose the country's polity to the undue influence of tribal sentiment and ethnic politics. This was the political and ethnic background over which the discovery of oil was laid and it is against this backdrop of internal tension and threatened stability that issues of environmental resources can be best understood.

Nigeria is the largest oil-producing country in Africa contributing up to 2% and 3 % of oil and gas reserves respectively for the continent. It is also the fifth largest oil exporting country in the comity of Organization of Petroleum Exporting Countries (OPEC) and the fifth oil exporting country to the United States. Most of the Nigerian Niger Delta lies in the Atlantic coastline stretching from between latitude 40°10' to 6°20'N and longitude 2°45' to 8°35'E. It covers a terrestrial and surface area of continental shelf 28,000 km² and 46,300 km² respectively (Egberongbe, et al, 2006). The coastal area is low lying with heights about 3.0m above sea level. It is generally covered by fresh water swamp, mangrove swamp, lagoon mashes, tidal channels, beach ridges and sand bars (Dublin-Green et al, 1997). The Niger-Delta in Nigeria is strategically located to occupy a significant proportion of the country's 13,000 sq km of water area.

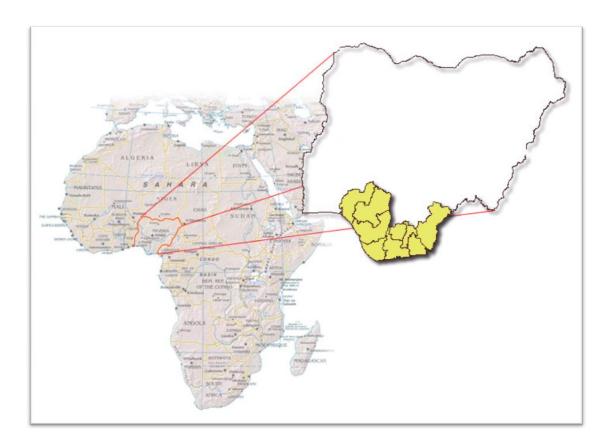


Fig. 1: Niger Delta in the African Setting

The Nigerian coastal geology is basically sedimentary dominated by the geology of arcuate Niger-Delta. The Niger-delta is composed of an overall classic sequence which reaches a maximum thickness of 9-12km (Ibe and Anita, 1988).

The Niger Delta is characterized by extensive fresh water and mangrove swamps. The fresh water swamps consist of stilt rooted trees and shrubs. On the other hand, the red mangrove is the dominant vegetation of the mangrove swamps of the Niger-Delta contributing up to ninety percent of the saline swamps. In most parts, the ecological characteristics pose

significant challenge to human development, interaction with the physical environment as well as the extraction of life support systems in the area.

The fan shaped southernmost part of Nigeria overlooking the Atlantic is the area popularly described as the Niger Delta in Nigeria. The area is made up of twelve (12) main ethnic groups (Ijaw, Edo, Itsekiri, Urhobo, Isoko, Igbo, Ogbia, Ikwere, Ogoni, Ndoki, Andoni and Ibibio)) and many linguistic and ethnic groups. These groups are spread over 9 (nine) states in Nigeria with Rivers, Bayelsa and Delta states contributing about 80% of the Niger-Delta inhabitants (World Bank, 2006). According to the National Population Commission (2010), more than 6% of the entire Niger-Delta population occupies the rural environment. The structure of the population also reflects a youthful population with about 62% being below 30 years of age. Adults aged 30 and 69 years constitute only about 36% (World Bank, 2006). These rural dwellers are comprised of the illiterates in the majority who engage in subsistence livelihood activities like farming, fishing, boat construction, rudimentary water transportation and similar socio-economic activities. The nature of their occupation and socio-economic structure bear particular relevance to the heavy dependent or people on the immediate physical environment for livelihood and life support systems. It could also be clearer that based on their closeness to nature, the people can barely survive outside of the physical environment.

ECONOMIC MINERAL RESOURCE IN NIGERIA

Minerals anywhere are created by natural processes but are transformed into mineral resources through cultural processes such as advances in knowledge and way of doing things. Thus, the range of organic substances contained within the Earth's crust that have attained 'mineral resource' status has increased through time as humans have developed the means of exploiting them.

Nigeria is endowed with many naturally occurring organic substances that have over time attained 'resource' status. Aigbedion and Iyayi (2007) provide a checklist of 26 different types of mineral deposits that have been exploited for their commercial value at small, medium or large scales in different localities. Among these mineral are *cassiterite*, *columbite* tantalite, *wolframite*, lead, zinc, gold and coal which have been exploited on a commercial scale since the early part of the twentieth century, and have made significant contribution to socioeconomic development of the area in which they are mined and the country at large (Kogbe and Obia, 1976). The second group comprises of minerals like *monazite*, *xenotime*, *thorite* and *molybelenite*. This group of minerals have, though, been exploited at lesser quantities, but have at one time or the other been exported for commercial values. The third group includes oil and gas since 1957, limestone, marble and rock aggregates. The exploitation of this group of mineral commenced relatively recently, yet they have played (and are still playing) significant roles in the national socio-economic development in terms of internal revenue earning and generation of foreign exchange. Table 1 shows the mineral deposits in Nigeria, their scales of exploitation and the localities of importance.

Table 1: Economic Mineral Resources in Nigeria and Scales of Exploitation.

S/NO	Mineral Name	Locality	Current Level of Exploitation
1	Iron	Itakpe	L
2.	Tin	Jos Plateau, Nassarawa	M.S,M
3	Niobium/Tantalum	Jos Plateau, Saki, Idiko-Ile, Oro	Won-as-by-product of tine mining
		Jos Plateau	-ditto-
4	Monazite	Jos Plateau	Dormant
5	Xenotime	Itagunmodi, Bimin Gwari, Dangbala	S
6	Gold	Ishiagu, Enyigba, Ameka, Ameri	Presently Dormant
		Ishiagu, Ameka, Ameri	M, Won as by-product of lead
7	Lead	Ishiagu, Enyigba, Ameka, Ameri	(galena) mining
		Ashaka, Ewekoro, Nfamosing, Nkalagu,	Won as by-product of lead mining
		Kalambaina, Igarra, Dangbala, Ikpeshi,	L
8	Silver	Atte, Okpilla	M, M (Presently dormant), L
		Burum, Igbetti, Igarra, Jakura,	M
9	Zinc	Kwakuti, Okpilla, Ikpeshi	S
		Gwoza, , Warake	S
10	Limestone	Wurno, Fika area Ikpeshi, Warake,	L
11	Marble	Azara, Omi Adio, Ozubulu, Naragua,	L
11	TVIAI DIC	Kano, Ikorodu, Lagos, Ire, Badagry,	M.S
		Igbokoda, Ughelli	L, M, S
		All part of the Federation	-ditto-
12	Feldspar	All parts of the Federation	unto
13	Gypsum	-ditto-	S (mainly illegal mining)
14	Barytes	Ijero-Ekiti, Jos Plateau, Saki, Falansa,	5 (manny megar mining)
15	Clay	Iyano-Church	
13	Ciay	Tyano-Church	
16	Glass sand	Ijero-Ekiti, Jos Plateau, Akwanga Area	S –ditto-
17	Construction sand	-ditto-	S –ditto-
18	Construction stones		S –ditto-
19	Laterite		S –ditto-
20	Beryl	Jos Plateau	
21	Tourmaline	Vos 1 Intent	
22	Sapphire		L
23	Ruby		
24	Topaz		
25	Coal	Enugu	
26	Oil and Gas	Linagu	L, M
20	On and Gas		L, 111
		Niger Delta	

L = Large scale exploitation; M = Medium scale exploitation;

{Source: Adapted with Modification from Aigbedion and Iyayi, 2007)

The impacts of the extraction of these minerals depend on the scale and nature of mining operation. For most mineral resources in Nigeria, only the scale of exploitation may be different, most of the minerals are mined either through surface

S = Small scale exploitation.

mining (open-pits and quarries) and various methods of strip mining or open-cast working. Some of these methods may create large holes in the ground which become permanent feature of the landscape. For instance, large-scale mining of tin and associated minerals in the Jos Plateau has resulted in a high degree of degradation of arable land, vegetation and landscape, as well as other environmental problems. The quarrying of limestone and the establishment of allied industries in Ewekoro, Shagamu, Okpilla, Ashaka, Gboko and Obajana as well as coal mining in Enugu has also resulted in different degrees of environmental degradation. It must be noted that the degradation of the environment affect all its components, the sum total of the external conditions in which organizing exists; the organisms themselves including the flora and faunal community, and the physical surrounding such as landforms. (Aigbedion and Iyayi, 2007). All these aspects of the environment which encompassed water, air, land, vegetation, animal (including humans), landscape, and geomorphologic features, historical heritage, etc. are adversely affected one way or the other in the course of mineral extraction. An important question here is to relate the magnitude of conflict (if any) during the exploitation of these other minerals and that oil and gas: The fact is that episodes of violent conflicts were not common and were local were they may occur. Violent conflicts are common during oil exploitation and in the area where they are mined. The probable reasons for this may include the scale of and frequency of exploitation. Another important reason is the feeling among local people that they could have more from the resources of their land when they actually have less. This feeling of plundering often triggers the

sense of ill feeling that local people already possess. This is in the face of the denial of access to the use of land and its ecological resources for time in perpetuity.

ENVIRONMENTAL CONSEQUENCES OF OIL EXPLOITATION IN THE NIGER DELTA

In Nigeria, the greatest pollution effects come from a large scale exploitation of petroleum, limestone and rocks used in the construction works. For the oil producing Niger Delta, environmental problems related to mining are multifaceted and can be categorized into three broad groups. These are problems relating to the natural environment and those that are development related. The third are socioeconomic problems that are generated by a combination of these two. The first include coastal or river bank erosion, flooding, sedimentation/silting and the development of exotic plants e.g. water hyacinth. In the second group are problems like land

degradation, agricultural productivity decline due to shortened fallow delta forest loss, biodiversity depletion, The third category include such socioeconomic problems like unemployment, conflicts, poverty, decay of infrastructure, etc (see table 2).

Table 2: Major Environmental and Social Issues in the Niger Delta

Problem Type	Problem Subset	Priority Ranking
Natural Environment	Coaster/River bank erosion	Moderate
	Flooding	High
	Sedimentation/Silt	Moderate
	Substance	Low
	Exotic (water hyacinth)	Low
Development Related	Land degradation / Soil fertility loss	High
	Agricultural decline/Shortened fallow	High
	Delta forest loss (mangrove)	High
	Biodiversity depletion	High
	Fisheries decline	High
	Oil spillage	Moderate
	Gas flaring	Moderate
	Sewage and waste water	High
	Other chemical	Moderate
Social Economic problems	Poverty	High
	Unemployment	High
	Community – oil company conflict	High
	Intercommunity conflict	High
	Intra-community conflict	Moderate
	Conflict over land	High
	Inadequate compensation	High
	Displacement	Moderate
	Decay in societal values	High
	Poor transportation / High cost of fuel	High
	Housing pressure /Infrastructure	High
	Decay / Crime	

(Source: Okoh, R.N. and Egbon. P.C. (1999) and ANEEJ, 2004)

According to ANEEJ (2004), there are up to 606 oil wells in the Niger Delta made of 60% onshore and 40% offshore. In these locations and around them, the destruction of the natural landscape is commonly the negative effects of oil exploration and mining. This is because all processes involved from oil prospecting to exploitation and mining require direct contact with the physical environment. Indeed, the magnitude of the damage at some stages may involve significant disruption of the ecosystem chemistry. These processes create open spaces on the ground and heaps of rock wastes that cannot be easily

disposed off; among other effects. This invariably creates the problem of soil erosion due to the significant alteration of the landscape. This situation is aptly described by Anyakwe (2000) as follows:

during exploration, drill cuttings, drilling mud and fluids are used for stimulating production the major constituent of drill cuttings such as barylets and bentonitic clays when dumped on the ground prevent local plant growth until natural processes develop a new topsoil. In water, these materials disperse and sink and may kill local bottom-living plants and animals by burying them.... Refinery wastes also have characteristics which constitute potential land, water and air pollutants..."

The above description captures what can be described as the 'natural' environmental challenges of oil exploitation. It is so chronicled because the damages involved are those that occur as a consequence of oil exploitation without any human or mechanical accident. In other words, these environmental problems are those that humans are rarely able to avoid if oil must be brought out from its natural hiding place.

Aside these, there are environmental problems that result in the slow poisoning of the waters and destruction of vegetation and agricultural lands by spills which occur during petroleum operations (Ademanwu, 2001). Chief among these is oil spillage which has over time, constituted a major source of environmental degradation in the Niger –Delta. Spills of oil experienced in Nigeria are those caused by burst pipeline, tanks, tankers, drilling operations, etc. Although these bursts and spills have occurred with different intensities, they are common phenomena and have resulted in loss of life and properties through water and land pollution that posses grave consequences for both aquatic and terrestrial life. In some cases, groundwater is also polluted causing well water to be covered with a thin film of oil; while in some other cases, the soil and vegetation are rendered useless because oil spill had made significant contact with fauna and flora components thereby creating a desert like situation in the mangrove rainforest.



Plate 1: Bomadi: Effects of oil spillage from Shell pipeline 7 weeks after (Tuodolo, 2008)

Between 1976 and 2001, close to 7000 spills of oil occurred resulting in the loss of 3 million barrels of oil in the Niger Delta. Out of this, more than 70% was not recovered. The spill affect the land (6%) swamps (25%) and offshore environments (69%). In all cases of pollution caused by oil spillage, residents found it extremely difficult to access potable water. In September, 2003, oil-spill fire in Nembe Local Government Area of Bayelsa State resulted in the death of seven persons; representing one of the many human casualties of oil spillage in the Niger Delta (see Vanguard, September, 26).

Gas flaring is also a regular rather than episodic event in the Niger Delta. To date, up to 75% of the gases associated with the Nigerian oil is flared off. This is so because for many years, gas associated with oil was not captured as a resource, but regarded as nuisance and a natural consequence of oil exploitation. Later, the conversion of these gases into resources was also associated with the unintended explosion of gas pipelines as occurred on several occasions in Oleh, Isoko South Local LGA of Delta State (CLO, 2002) or through deliberate vandalization of oil and gas pipelines. When gas leaks or flared through mechanical accidents or deliberate sabotage by the irate local communities, the consequences are untold and may include the introduction of an unprecedented amount of hydrocarbons and ambient air pollutants into the air and land of the Niger Delta.



Plate 2: Nembe: Shell pipeline fire December 21, 2005 (Tuodolo, 2008)

Oluwole, et.al (1996) found that there were more volatile oxides of carbon, nitrogen oxides, Carson. Monoxides, Sulphur Oxides and total particulates than the standard recommended even by the Federal Environmental Protection Agency of Nigeria (FEPA) in 1991. This occurrence to say the least, is health damaging. Aside this, in order to shorten travel time and improve access between locations, oil companies often construct canals to link oil fields and production facilities. These canals, although serve as access arteries between oil companies and their installation but also allow the flow of saline water into fresh water areas. These canals therefore destroy the freshwater ecological systems. Materials from the dredging of rivers are also abandoned on the banks of rivers constituting major disruptions to the hydrology of the otherwise flat and low lying

coast lands. This is contrary to best practices in canalization in other parts of the world (see Neil and Turner, 1987, Ohimain, 2004).

The foregoing and the related environmental problems in the Niger Delta are important not only for the ecological dislocation but also for the social, economic and political tensions that are direct or indirect off-shots of the oil exploration. For people and a region whose livelihood is intricately linked to the biophysical environment, what inference can be drawn for the poverty and quality of life of the people?

CLIMATE CHANGE AND THE NIGER DELTA ENVIRONMENT

The Niger Delta is located in the Atlantic Coast of Southern Nigeria where River Niger divides into numerous tributaries. It is the second largest delta in the world with a coastline spanning about 450 kilometres. The Niger delta Area is the largest wetland in Africa and among the three largest in the world spanning over 20,000 square kilometers. About 2,370 square kilometres of the Niger Delta area consist of rivers, creeks and estuaries and while stagnant swamp covers about 8600 square kilometers (CREDC). With four ecological zones, namely coastal inland zone, mangrove swamp zone, freshwater zone and lowland rain forest zone, the region has emerged as one of the most ecologically sensitive region in Nigeria. Resources (oil and gas) from the region are the main source of revenue for the Nigerian state, accounting for about 97% of the country's total export.

One of the greatest challenges to Niger Delta environment is coast erosion and flooding. The International Federation of Red Cross (IFRC, 1999), reports that sea level rise and flooding are already affecting millions of people worldwide and that an estimated 10 million people are at constant risk of coastal flood and floods in general are making 3 million people homeless every year, and that the number of people affected by sea level rise is on the increase annually.

Coastal erosion is thus a regular occurrence in the Niger Delta areas of Nigeria (Udofa and Fajemirokun,1978 Okon and Egbon, 1999). Agbola and Olurin (2003) reported that the World Bank ranked coastal erosion as needing moderate priority attention in the Niger Delta. This is because low-lying coastal settlements in the region have been inundated by coastal erosion. In Forcados, some oil wells have been lost to the ocean due to erosion. Coastal erosion is thus a serious ecological challenge for the economic activities in the Niger Delta especially natural sectors such as farming and fisheries. Awosika, 1995 indicated that about 50% of the fishes consumed in Nigeria is from the Niger Delta. Some terrestrial plants that have low tolerance for high salinity will also be affected. Sea water instruction will have serious impact on food security in the region; because of it impacts on coastal agriculture. It must be emphasized the regional dimension of climate change impact in Nigeria; while the northern part of the country faces significant threats from increasing aridity and desertification, climate change will lead to increase in flooding in the southern part which include the Niger Delta. Adverse impact resulting from the phenomenon is already on the increase in this region. Flood in general has impacted negatively the livelihood of many communities in the region. Flood and erosion remove top soil, destroy roads, affect fresh water resources and threaten lives and properties. Many people have been rendered homeless by floods and several roads have been made impassable. The usefulness of several roads has become seasonal, only passable during the dry months of the year. In Egor and Ogida

communities in Edo State, several houses have been abandoned by the owners due to floods and many more areas in the region are vulnerable to floods. Owners of the affected houses did not anticipate the problem they now find themselves when their houses were being built. For occupants of some of the affected houses who are unable to relocate for financial reason will have to cope with the situation. This makes them vulnerable to different kinds of water-related disease such as malaria, dysentery, cholera, and diarrhea. Trauma resulting from the problem can lead to non-pathogenic diseases such as hypertension and diabetes. In some other instances, some areas are cut off from other parts of the community as a result of flood.

Flood and Coastal erosion are just two of the numerous example of the visible impact of climate change which had destroyed means of livelihood of many able bodied men and women.

The social context of the deprivation that characterizes the use of the environment for oil exploitation in the face of threats of extinction from climate and meteorological hazards is the launch of reappraisal attacks which resemble a vengeance for the deprivation people suffer from various environmental insults. Incidentally, the typical strong feeling and attachment for the land still hold sway in most parts of Africa. In other words, even in the face of greater provocation by people and the environment, the natives are unwilling to vacate the ancestral homes for a save haven somewhere.

OUALITY OF LIFE IN THE OIL PRODUCING COMMUNITIES OF NIGERIA

Nigeria since the last 30 years had realized up to about \$300 billion in oil revenues after controlling for payments to foreign companies (see Gray and Karl, 2003, Oyefusi, 2007). It is an amazing paradox that the country still found a place among the fifteen poorest nations of the world and the only oil producing country in the category. Its Gross Domestic products had stagnated at \$245US during the over 35 years between 1960 and 2000 which indicates that the oil revenue which grew from \$33US per capita to US\$325 per capita did not add value to the human standard of living measureable through indicators of quality or life. The paradox of poor development and rich natural resources also extends to the Niger Delta but founds its greatest expressions here because of the heavy reliance on the biophysical environment by the people.

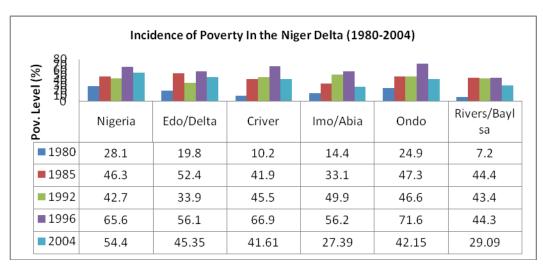


Fig 2.: Incidence of Poverty I the Niger Delta (1980-2004) (Source: UNDP, 2006)

As shown in the figure above, incidence of poverty in all states of the Niger-Delta was lower in the 1980s than in the latter years. This indicates that the quality of life for most people of the region was far better than in the following two decades or so. In the Niger Delta today, most international benchmarks for poverty assessment certainly underestimate the magnitude and severity of poverty among these resource rich people. This is because poverty had become a way of life for the majority due to economic stagnation, and low agricultural productivity resulting from severely impoverished soils. Thus, a great number of people are unemployed while those engaged found it difficult to realize minimum survival income from their legitimate employment on a regular basis.

Income poverty is therefore important in this region as a determinant of other types of poverty. In other words, the income poor are unable to afford essential goods, facilities and services; they are isolated and maintain poor communication within the social system, and above all, unable to participate in the mainstream community or national decision making- they simply don't have a voice. Income poverty is therefore a prerequisite for the accessibility to- and affordability of- deprivable resources. Moreover, most parts of the Niger Delta are also on the 'wrong side of price regimes' for essential goods and services. In most areas in the region, prices are often higher compared to other parts of the country. Poor physical access in terms of road network and the swampy canals which make river transportation difficult- combine to keep the remote rural people in the area even farther from the operations and realities of the national economy. Goods, facilities and services therefore take longer time to get to the people and may have acquired enormous overhead costs on transit. At the point of delivery, prices of goods and services may have plummeted beyond the reach of the common people. Indeed, oil and gas products acquire higher prices than the national pump prices. This serves to erode the purchasing power of the ordinary person, heightens inflation and thereby precludes peoples' access to basic human needs. This is in the face of highly unattractive traditional occupations with their weak earnings relative to the oil sector.

Based on the above, key considerations in the quality of life assessment like access to health care, education, water, transportation and involvement in decision making are not impressive for most Niger Delta people. The reality of the availability, distribution and more importantly, affordability of these 'material quality of life' also reveals "the immense challenges facing development and the provision of social amenities as a critical support for sustainable livelihoods" (UNDP, 2006).

The high level of poverty and poor quality of life described for the Niger Delta people above is unacceptable given the fact that the oil wealth derived from this region sustains the Nigerian Federation through crude oil and gas exports, petroleum profit taxes and royalties, as well as domestic crude oil sales. Yet grinding poverty, deprivation and alienation are daunting reality for the people of the region. This reality negates, in absolute terms, the Harold Innis' 'Staple theory of Growth' which proposes that:

"Economic development in backward areas commonly begin with resource boom which yields profits that are reinvested in local infrastructure and value-added industries, producing a diversified pattern of growth" (Oyefusi, 2007).

To say the least, this position is a legitimate expectation in a just and equitable society where human effort are made to make resources work for the people based on the contributions of their environment, the people feel genuinely deprived.

The poverty condition in the Niger Delta had actually degenerated into that of deprivation because there is "intense feeling among people that they ought to do far better given the enormous resources flowing from their region" (UNDP, 2006) Runciman (1966)'s thesis is relevant here; that the condition of deprivation is established for a member of a community when:

"He does not have X, he sees some other persons in his neighborhood, which may include himself, at some previous or expected time, having X. He wants X and he sees it as feasible that he should have X".

This conception is suggestive of a comparison of oneself or region with other individuals or neighborhood living conditions. Within this purview, to an average 'South-South' person in Nigeria, the present deplorable level of the quality of life in the area is unacceptable considering the reckless abandon with which ill-gotten wealth from oil resources is displayed even by people that are ordinarily of equal status with the Niger Delta inhabitants. The consequences are the present level of frustration and indignation among the local people. Thus, recurring conflicts in the Niger Delta are reflections of the contradictions of environmental governance and politics in Nigeria because the popular perception in the region is that the power elites in Nigeria had sought to maintain relations of power that gradually undermine the position of minorities, especially their access to oil and its resources even when the 'black gold' in Nigeria is a native of their region.

VIOLENCE IN THE NIGER DELTA: VENGEANCE OR ADAPTATION

The anthropogenic forces shaping the Niger Delta environment has resulted in significant disruption of the livelihood systems. In most cases, the available adaptation mechanisms had left people with less than sustainable life support. In other words, the incessant cases of water and land pollution from oil spillage and gas flaring, flooding resulting from deep excavation and destruction of other local ecological services had served to exacerbate unemployment and the condition

chronic poverty in most part and for most people of the Niger Delta in Nigeria. The first basic economic contraction in the Niger Delta exist in the disruption of the traditional livelihood activities without a commensurate involvement of the local people (who are the victims of the disruption) in the macro level oil exploration activities in their environment in place of their own sedentary economic activities. There is also the lack of adequate compensation for damage to their environment and livelihood systems. In other words, the accruements from oil exploitation are not particularly used to take care of local needs but for the development of the national economy through a selfish-federalism that adopts a circuitous derivation equation under the guise that petroleum is a national resource. A wide gap is therefore created by the unavailability of the local ecological resources and the inability of the people to fashion an alternative life support system that is capable of providing for the needs of the people without recourse to the biophysical environment. For all practical purposes, this alternative does not exist and not feasible if the government disposition and reaction characterized by militarism and blackmail is any barometer to measure such possibility. The reaction of people to these destructions without replacement is a strategy that is at once an adaptation and a vengeance. In other words, although oil spills can be caused by pipeline corrosion due to poor maintenance and irregular inspection; there are also planned man-caused spills through pipeline bursts linked to sabotage. These types of bursts are indeed becoming more regular than episodic. There are therefore a series of organized criminal incidents some of which involved use of firearms and result in loss of life aside the huge loss of equipment and revenue. Shell (2006) reported a loss of about 102 barrels of oil in the projected revenue of the annual budget in 2006 representing about 6% due to the activities of the youths and militia groups. In the last few years, and due mainly to oil exploration and exploitation, Nigeria has witnessed a number of firearms attacks, kidnapping, destruction of lives and property, water piracy, bunkering, abduction of expatriates and related activities. All these are struggles derived from accumulated grievances against alienation from labour, product, exploitation and perceived slavery (Nwanegbo Ben, 2002). These activities can be said to flow from both the 'grievances' and 'looting' hypotheses proposed separately by Klare (2001) and Collier and Hoeffler, (1998, 2004) respectively. According to Klare, natural resources create grievances among local population arising from land exploitation, environmental hazards, inadequate job opportunities, social disruption accompanying labour migration, and perceived or real injustice in the distribution of resource rents. These condition increases the risk of civil strife (See Ross, 2003). As a consequence, Collier and Hoeffler (1998, 2004), propose the looting hypothesis which suggests that natural resource extraction provides opportunity for potential rebel groups to finance rebellion either by gaining control of the extraction and sale of the resources or by extorting money from extractive firms. This hypothesis could explain why oil pipelines were bombed 98 times in 2000 alone in Columbia. Rebel groups in the country also earned a whopping US1.5 Billion from kidnapping ransoms between 1991 and 1999. This same hypothesis also fit into the on-going Niger Delta zone of Nigeria where civil strife had over time escalated beyond the proportion that can be tolerated by the copious government insensitivity and criminal resilience (see Dunning and Wirspa, 2002).

Thus, when militia groups carry out these seemly criminal activities, it is only fair to view these activities as adaptation strategies to take from the 'invaders' of their ecosystem, the support denied them from their ecosystem; and a vengeance for the age-long alienation of the people from the profits of the services of their environment. The two would not be justified where a government is sensitive enough to reason that the communities that are trapped in the own enclaves of oil resources are also people who are entitled to life as of right and for whom livelihood support is non-negotiable. The combination of

these strategies is a brand of justice, though of the jungle, that becomes unavoidable when justice based on equity is unattainable. This also explains why in the last one decade, more than 80 percent of the crisis and criminal activities in Nigeria were those based on the environmental adaptation and vengeance in the Niger-Delta. At this juncture, the solution is quite straight forward: environmental justice within the framework of equity. An important note here is that we often believe that this option is only simple but not straight forward. This belief is a product of the African leaders' 'natural' unwillingness to adopt positive changes as if such leaders profit from the mysteries of the ordinary people. In the next section of this paper, we discuss the basic tenets of environmental justice as an urgent reconciliatory paradigm in Nigeria.

TOWARDS AN ENDURING PEACE IN THE NIGER DELTA: THE ENVIRONMENTAL JUSTICE OPTION

The ideas about resource curse or 'Dutch Disease' which refers to the growing evidences to support a negative relationship between resource abundance and economic development, became popular at the global level, as the outcome of the failure of resource governance system. This is because many resource rich nations have failed to harness the developmental potentials embedded in natural resources for the betterment of the people. It is therefore unlikely that societies will be able to reverse the amazing paradox of 'poverty amidst plenty' of resources without first closing the wide gap between local resource availability, environmental problems and social injustice. The idea that resolves this paradox is called environmental justice. The idea canvasses for the establishment of linkages between environmental and social injustices with a view to developing integrated government policies that is capable of resolving the contradiction between environmental resources abundance and persistent social exclusion and deprivations in the source regions. For most countries, environmental justice is a resource governance alternative; and a reconciliatory paradigm in conflict ridden nations whose instability could be traced to the resource curse.

The concept of environmental justice, in its current understanding, is a product of thee activities of a network of community groups in the USA. It developed as a resistance to the location of factories that are not environmentally safe in the predominantly black neighbourhoods and in indigenous peoples reservations. The movement relied on the enormous academic literature in the USA which documented the extent and causes of environmental injustices (see Hofrichter, 1993, Byrant, 1995 and ESRC, 2001). The concept of Environmental justice adopts civil rights and social justice approach to argue against the concentration of the negative environmental externalities in selected neighbourhoods. This agitation was reinforced by the issuance of *Executive Order 12898: Federal Actions to address Environmental Justice in Minority Populations and Low Income Populations*. The order required regulatory agencies to "make environmental justice a part of what they do".

The basic principles of environmental justice are captured aptly by the UK Sustainable development Strategy that:

Everyone should share in the benefits of increased prosperity and clean and safe environment. We have to improve access to services, tackle social exclusion and reduce the harm to health caused by poverty, poor housing, unemployment and pollution. Our needs must not be met by treating others, including future generations and people elsewhere in the world unfairly. (ESRC, 2001)

In other words, environmental justice presupposes the pursuance of a better quality of life for everyone within the guiding principle of social progress which meets the needs of every one. Environmental justice principle therefore require from users of natural resources to:

- Provide a formal elaboration of the definitions of the victims of environmental injustices and design appropriate
 institutional and governance strategies that accord the victims status in law even when the victims are as yet
 voiceless.
- Recognize the need for environmental justices to account for injustices over large areas and across the social
 spectrum. Pollution impact, for instance, can be felt in locations farther away from the source of the pollutant.
 Environmental justice principles therefore forestall the situation in which some people get economic and other
 benefits of a development or industrial process while large majorities suffer consequent social and environmental
 dis-benefits.
- Recognize that environmental justice is a global and intergenerational issue as well as a national one in many countries. Environmental problems suffered by the poor and the unborn are often those that were generated by other people elsewhere with advanced culture and lifestyle. Global warming and the associated climate change affects the poor people in Africa and the children that are yet unborn. It is important to note that most of the activities leading to the alterations in climate are caused by activities of people in advanced western countries.
- Environmental justice therefore canvasses for human race to take responsibility for ensuring the continued existence of the plants and animal diversity since man is the sole agent of high rates of extinction of the plants, animals and habitats (UNEP, 2000). This becomes imperative in view of the fact that "no theory of justice can be regarded as complete if it does not take into account the possibility of extending the community of justice beyond the realm of present generation of human beings" (Dobson, 1998)

Environmental resource exploitation therefore carries with it both ecological and social contract of ensuring the continuity of environmental stability and sustainability for the generations beyond the present as well as the social angle of ensuring that the extraction of such resources does not impoverish the land and people. In Nigeria, the tenets of environmental justice is captured in a local terminology of 'resource control'

It is important to recognize the efforts of government towards wealth redistribution in Nigeria. Some of these efforts include the following:

- Directive to the NNPC and multinational oil companies in joint venture to allocate 3% of their annual investment in capital projects to community development programmes in their areas of operations. (The African Guardian, 1991)
- The establishment of the Oil Producing Areas Development Commission (OMPADEC) in 1992 also brought with it a hundred percent increase (1.5-3 percent) in the statutory allocation for the development of the Niger Delta while the region continue to receive the 1% mineral revenues on the basis of the derivative principle. The allocation for the amelioration of ecological problems was also doubled from 1% to 2% of the federation account
- In 2006, the government also created the Niger Delta Development Commission (NDDC)
- And in 2008, the Ministry of Niger Delta Affairs was created.

. Although, some of these redistributive concessions put to rest the controversial and ineffectual practice of disbursing the mineral producing areas' fund through ad hoc and random presidential committees, yet they did not meet the expectations of the Niger Delta people in most parts. For instance, the OMPADEC derived it legitimacy and authority from the Federal Government, to which its chairman was answerable. This was a lopsided bureaucratic arrangement as it posed a lot of difficulties for the commission in its dealings with the governors in the oil producing states. It was also grossly under funded, politically unrepresentative and administratively over centralized (Quaker- Dokubo, 2001).

Above all, it is tragic to note that in the Niger Delta, just like in many other parts of the country, people are unable to accept such government appointments and creations as measures designed to solve human problems, but a means of creating places where political loyalists and associates could hide to enrich their private pockets because of the antecedents of looting, greed and corruption of people in high places.

"Governance here seems to be a god's appointed time for political office occupants to wreck the state treasury without any intention to serve the people" (Focus Group participant) (UNDP, 2006)

When followers carry this notion about their leaders, the representation is fraught with suspicion and the legitimacy is short of genuine.

SUMMARY AND CONCLUSION: WHEN SHALL THE PEACE 'ARRIVE'?

In this paper we have argued severally that the main causes of crisis in the Niger Delta revolves around greed and selfness of leaders with the consequent poverty and multiple deprivations in an environment bleeding with social and environmental injustices. The solution to these injustices is the adoption of the equity principles of 'same contribution equals same benefit' and that no community should be given more when it contributes less and vice versa. The benefit of adopting this principle is also straight forward. Without social justice, peace, stability and hence development will continue to elude the region and hence the nation because it is social justice that "creates a healthy, harmonious, reliable social psychological atmosphere that will stimulate economic development" (Boothroyd and Xuan nam, 2000).

The challenge of achieving this pace is enormous. It includes the creative legal and institutional technology to retrieve monies that were appropriated by individuals other than communities or agencies to which shares of national resources are, by law due. Therefore, a critical reflection on the level of chronic poverty in Nigeria an that of multiple deprivation in the Niger Delta shows that the solution lies at the frontier of social and environmental justice as well as a meticulous overhaul of the national moral values. This attempt must be geared towards taming of the inordinate greed and wealth acquisition through corruption in high places. These features are also inseparable allies of capitalism in its crude orientation. If violent conflicts in the Niger Delta and elsewhere in the country must abate, the nation must therefore rebrand its moral values and release, to human beings, the dignity that nature has bestowed on him.

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