

Crude Oil Exploitation: The Environmental and Economic Implications to the Niger Delta People.

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Abstract: *Crude oil exploitation activities have been implicated as major causes of environmental degradation within the oil bearing communities of the Niger Delta. This study, analysed the impact of crude oil exploitation on the environment and the consequences on the socio-economic life of the people. The study relied on secondary data from journals, published and unpublished materials on related literature. The data were analysed using descriptive method to make reasonable deductions. It was discovered that severe environmental degradation has been inflicted on the oil bearing communities of the Niger Delta as a result of oil spillages and other factors to the extent that economic activities in the area have been adversely affected leaving the people completely impoverished, with no meaningful alternative source of livelihood. Both the land, water and air have been polluted with crude oil over the years, thus depriving them of the opportunity to continue to engage in their usual basic economic activities, prominent among which are farming and fishing, from where they met their basic economic needs. Stakeholders' participation critical decision making was visibly absent, thus creating doubts in the credibility of even the best and well-intended policy of the principal actors in the oil industry, thereby compounding the already pitiable situation. To address the current challenges of the Niger Delta and effectively guaranteed peace and economic growth of the oil bearing communities, it is, therefore, pertinent to put in place a deliberate policy whereby the people will be fully integrated in the scheme of things especially when certain policy decisions are being taken. Secondly, a system should be created whereby a reasonable chunk of the oil proceeds are judiciously applied towards a guaranteed economic development and empowerment of the people.*

Keywords: *Degradation, Economic, Environment, Exploitation, Oil Spill.*

I. Introduction

The Niger Delta region has experienced both intensive as well as aggressive oil activities since the discovery of crude oil in commercial quantities at Oloibiri in 1956. The Nigerian nation, having found this product a major foreign exchange earner, without proper planning and management strategies, swung into the tapping of this resource, so recklessly that it has turned-out to be, no longer an asset but a liability to the country, as it has left the environment completely devastated and its people grievously impoverished. According to the Central Bank of Nigeria (CBN, 1981) annual report, oil accounted for more than 90% of Nigerian exports by value and about 80% of government revenue. The situation is still the same today it is still the major foreign exchange earner. Oil has indeed played a very significant role in the overall economic growth of the country. However, the adverse implications of petroleum exploration, exploitation and production are very severe as these have affected the micro economic indices of the host communities. If the oil industry is considered in view of its enormous contribution to foreign exchange earnings, it has achieved a remarkable success. On the other scale, when considered in respect of its negative impact on the socio-economic life and the environment of the immediate oil-bearing local communities and its inhabitants, it has left a balance sheet of ecological and socio-physical disaster (Achi, 2003). The people of the Niger Delta claim that the pollution of their land, water and air environments is as a result of the poor and inefficient management and production systems of the operators in the oil and gas industries by way of total neglect and non-involvement of the stakeholders in the entire process. Furthermore, according to (Ogula, 2012 and Omojimito, 2012), the indigenes equally assert that in environmental economics, the cost of externalities arising from the internal transactions of the Multinational Oil Companies (MNOCs) ought to be integrated into the direct cost and profit opportunity of production. Not providing adequate strategy to internalise these externalities has resulted in the people suffering a double fold. The subject of this study, therefore, is to analyse the extent of this impact on the socio-economic and environmental status of the oil-bearing communities of the Niger Delta.

1.1 Statement of the Problem

In 2011, the United Nation Environmental Programme revealed an independent assessment report establishing that decades of oil and gas exploration and production activities by MNOCs have caused severe pollution of the ecosystem in the Niger Delta (Duru, 2014). These decades of huge investments by these MNOCs in this sector have equally translated to huge profits for them and colossal loss to the host communities

as according to (Oluduro and Oluduro, 2012; and Oguduvwe, 2013), the Niger Delta indigenes have not benefited from the profits of the MNOCs. Instead, the people have been subjected to undue hardship and economic stagnation since the commencement of oil production on a large scale in their communities. This is evident in the severe environmental degradation and consequent neglect by both the operators of the oil companies and the government whose regulations and policies are so feebly pursued that the impact is not felt in any way. While the palpable neglect can be said to be a common decimal in the country as a whole, the Niger Delta region is particularly single out here by reason of the resource it produces for the country and the magnitude of socio-economic and political deprivation it suffers (Akhakpe, 2016). An overwhelming majority of the people live in abject poverty even as the only source of meeting their basic economic needs have been devastated by incessant oil pollution through spills that pollute the land and aquatic environments, gas flaring and other forms of environmental degradation. Oil and gas extraction are meant for economic development and economic empowerment of the entire people of the country, but the reverse is the case as the ordinary masses, especially the people of the oil-bearing communities, are totally impoverished and their communities grossly underdeveloped.

1.2. Aim and Objectives of the Study

The aim of this study is to analyse the extent to which the environment of these oil-bearing Niger Delta communities has been devastated by oil production activities and consequently how the economic sustenance of the people has been incapacitated.

The following objectives will therefore be vigorously pursued:

- To analyse the impact of crude oil exploitation on the Niger Delta Environment;
- To examine the impact of environmental degradation on the economic development of the oil-bearing communities of the Niger Delta.

1.3. Research Questions

Having stated the objectives of this study, the following research questions have been formulated to address these objectives:

- How have the oil production activities affected the environment of the Niger Delta Region (NDR)?;
- How has environmental degradation affected the socio-economic activities of the people of the NDR?
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II. Conceptual And Theoretical Framework

Oil-induced environmental degradation has impacted negatively on the life and socio-economic growth and development of the nation as a whole and the oil-bearing communities of the Niger Delta in particular. The critical and stakeholder theories will form the foundation that shaped the direction of this study.

Critical theory is a school of thought which aims to dig beneath the surface of social life and uncover the assumptions that keep one from a full and true understanding of how the world works. The theory promotes an equal opportunity for members to contribute to the development of systems, which meet human needs and lead to the progressive development (Ogbor, 2001). Duru (2014), quoting Odoemene (2011) and Akhakpe (2012), posited that environmental degradation and the implication for the rights of the Niger Delta people both to a safe environmental and to a meaningful living within their location, are the causes of continuing conflict and tension between the people and the government/multinational oil corporations. In the midst of sustained conflict, crisis situation arises and definitely economic development is stalled. Citizens' participation in environmental decision-making in matters affecting them is a sine-qua-non to economic development. According to Vetriss and Kuentzel (2005), most resource management agencies are mandated by law to engage in some form of public participation when making policies or implementing actions. The people of the Niger Delta have, by their actions, given credence to this theory.

Concomitantly, stakeholder theory, which recognizes the existence of some people who have a stake, in one way or the other, in an organization and thus have a claim or right of ownership or interest in the organization, is also critical to this study. In validating this assumption, Ventriss and Kuentzel (2005), further posited that effective management requires decision makers to bring all stakeholders together to deliberate on positional differences in a non-threatening communicative environment. Corporations have stakeholders, that is, groups and individuals who benefit from or are harmed by, and whose rights are violated or respected by, corporate actions (Freeman, 2012).

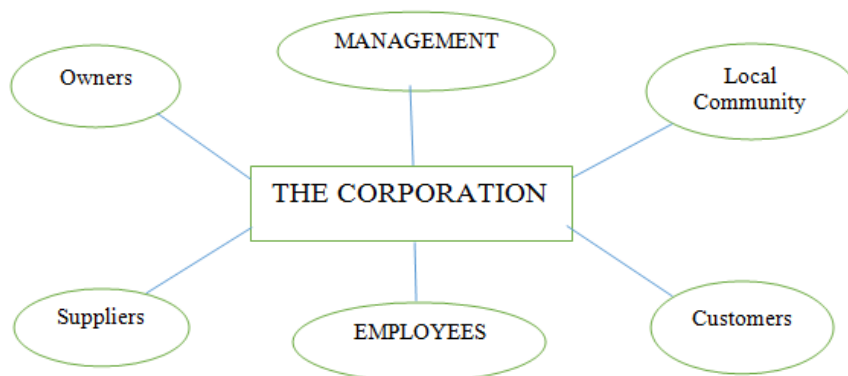


Figure 1. A Stakeholder Model of the Corporation

Source: Stakeholder Theory of The Modern Corporation: Freeman R. E. (2012).

Figure 1 shows the Stakeholder model of a firm which presents a bilateral relationship between the corporation and each of the various stakeholders. Where the existence of stakeholders are not recognised and factored into an organization, business failure becomes imminent. To buttress this point, Freeman (2010) argued that by paying no attention to owners and employees, each of which has a stake in the firm, and by having no concepts with which to manage these relationships, managers could guarantee their own demise in the form of new management or debilitating strikes and work stoppages. Omojimito (2012), further argued that by omitting the stakeholder concept in its business, MNOCs have tacitly engendered the emergence of new social movements in the Niger Delta. Against this backdrop therefore, the current challenges of the Niger Delta cannot be effectively guaranteed without involving the people and creating a system whereby oil proceeds are judiciously applied towards the economic development and empowerment of the people.

III. Materials And Methods

Data for this study were sourced from past studies and works on related literature. The study relied on secondary data from government and non-governmental organizations such as Nigerian National Petroleum Corporation (NNPC), United Nations Environmental Protection Programme, Journals, published and unpublished materials. Thereafter descriptive analysis was adopted to make reasonable deductions from the data.

3.1. The study Area

The Nigeria's coastline is approximately 853km facing the Atlantic Ocean and lies between latitudes 4° 10' to 6° 20'N and longitudes 2° 45' to 8° 35' E (Nwilo and Badejo, 2001). This area is characterised by mangrove, brackish swamp and rain forest vegetation richly endowed with crude oil deposit, fertile agricultural land and waters thickly populated with variety of aquatic animals which make fishing and farming the major economic activities in the area. The astronomical increase in oil exploration and exploitation in the area has subdued the activities of the once very vibrant farmers, not just for reason of the sudden quest for oil wealth but due, largely, to the damages resulting from oil exploitation to their farming grounds and fishing waters, leaving them with little or no alternative source of livelihood.

IV. Crude Oil Exploitation In The Niger Delta And Oil Spill

Nigerian crude oil reserve is over 25 billion barrels, while the crude oil production per day is estimated at 2.2 million barrels (Nwilo and Badejo, 2001). Nigeria, with the largest natural gas reserve in Africa and the second largest oil reserve, also in Africa, is the largest producer of oil in the continent. The production rate has been on the increase over the years starting with a production capacity of 5100 barrels per day (bbl/d). In 2008, Nigeria's crude oil production averaged 1.94 mb/d, and slightly over 2.2mb/d in 2009 (Country Analysis Brief, 2009). The Nigerian National Petroleum Corporation (NNPC) News and Update as at May 2016 revealed that Nigerian crude oil production has increased from 2.4 million barrels per day (mbpd) to an all-time high of 2.7mbpd. Despite this huge quantity of oil being extracted on a daily bases, the region and its people have remained relatively poor and under developed. Thus, the persistent demand for attention and amenities such as Primary Health Centre (PHC), educational facilities etc, by the representatives of host communities is to ensure relevance in terms of socio-economic well-being after the oil becomes empty (Omofonmwan and Odia, 2009).

According to Kareem, Kari, Alam, Chukwu, David and Oke (2012), all stages of oil exploitation negatively affect the environment, and the greatest single intractable problem caused by crude oil exploration in the Niger Delta is oil spillage. In trying to extract oil, the host communities have suffered grievously in terms of direct loss of their farming lands and fishing waters due to spill. Environmental damage due to spill has both

short-term and long-term effects. The effects could last for decades even after clean-up exercise. When oil spills, it coats every substance it comes in contact with, plants absorb it and get damaged and the entire land (forests and wetlands) and water bodies become most unsuitable for sustenance of life. The entire ecosystem in contact with oil become contaminated. In water, fish and other smaller organisms which are essential links in the global food chain are destroyed, while on land, wildlife habitat becomes too hostile for continued existence of its inhabitants. In his study on Special Issues on Africa-based Oil Exporting Companies, Snapps (2011), opined that the wide-scale contamination of farmlands, creeks, swamps and rivers in the Niger Delta is the result of crude oil exploration, refining and other allied business activities in the region. Oil-related environmental degradation is a direct consequence of oil exploitation. Identification of needs by the people and participation of the people in the process of servicing their needs, are vital synergies towards actualizing the people's needs and desires (that are accepted as satisfactory), (Omofonmwan and Odia, 2009). The very long period of intensive oil activities in this area, dating back to 1956, has been implicated in the large scale pollution, environmental degradation, soil impoverishment, destruction of aquatic life, diminishing agricultural productivity, displacement and mass exodus of youths to cities, restiveness initiated by youths left behind, numerous vices which include kidnapping, vandalism and other social ills. Evidently, the people's core interests and aspirations have not been properly articulated and factored into the daily operations of the MNOCs involved in the continuous oil extraction in the region.

In the course of oil extraction too, spills occur on different scales. Oil spill is a global environmental issue which occurs regularly for as long as oil production goes on. Spill is a major threat to the environment of the host communities as the oil pollutes the waters, land and air and create very hostile environment for both the flora and fauna. It also cripples economic activities on a large scale.

The volume of oil that has been spilled into the environment of the oil-bearing Niger Delta communities is quite enormous. According to (Nwilo and Badejo, 2010), between 1976 and 1996 alone, a total of 4647 incidents resulted in the spill of approximately 2,369,470 barrels of oil into the environment. Also, between 1997 and 2001, Nigeria recorded a total number of 2,097 oil spill incidents. The largest spill was the offshore well damage in January 1980, when at least 200,000 barrels of oil (8.4 million U.S. gallons), according to oil industry sources, spilled into the Atlantic Ocean from Texaco facility and destroyed 340 hectares of mangroves (Oil Spill Intelligence Report, 1998).

Table 1. Oil Spill Data

S/NO	Year	Number of Spill Incidents	Quantity spilled (barrels)
1	1976	128	26,157.00
2	1977	104	32,879.25
3	1978	154	489,294.75
4	1979	157	694,117.13
5	1980	241	600,511.02
6	1981	238	42,722.50
7	1982	257	42,841.00
8	1983	173	48,351.30
9	1984	151	40,209.00
10	1985	187	11,876.60
11	1986	155	12,905.00
12	1987	129	31,866.00
13	1988	208	9,172.00
14	1989	195	7,628.161
15	1990	160	14,940.816
16	1991	201	106,827.98
17	1992	367	51,131.91
18	1993	428	9,752.22
19	1994	515	30,282.67
20	1995	417	63,677.17
21	1996	430	46,353.12
22	1997	339	59,272.30
23	1998	390	98345.00
	Total	5724	2,571,113.90

Source: The Department of Petroleum Resources

The spill is continuing till today. Table 1 shows the number of oil spill incidents recorded from 1976 to 1998, and the quantity of oil spilled (in barrels), within the same period. There appears to be a consistent reduction in the volume of spill from the table, but the number of spill incidents showed a consistent increase.

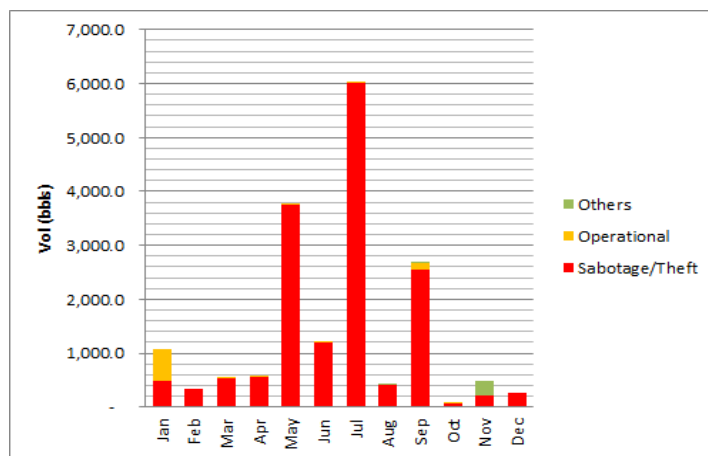


Figure1. Monthly Oil Spill Incidents 2015

Source: SPDC

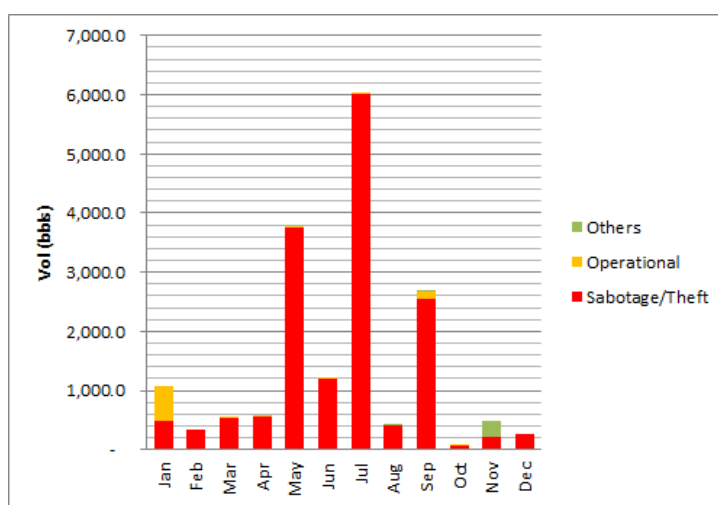


Figure 2. 2015-Volume of Oil Spill /month (bbl)

Source: SPDC

More recently, the monthly oil spill incidents recorded for 2015 were presented in figure 1 and the volumes spilled for the same period were equally presented in Figure 2 (SPDC, 2015). Spill is therefore an environmental menace that has defied all reasonable solutions.

V. Oil Exploitation, Environmental Degradation And Economic Development In The Niger Delta

Oil exploration and exploitation are meant to bring development both on the issues of per capita income, Gross National Product (GNP) and also in the socio economic context. The socio economic context of development implies modernization, “a process whereby a society is reoriented in its structure, institutions values and patterns of behaviour (Bayode, Adewunmi, and Odunwole 2011). The Niger Delta communities have remained grossly socio-economically underdeveloped and pauperised amidst the immense oil wealth owing to systematic disequilibrium in the production exchange relationship between the state, the trans-national companies and the people (Essaghah, 2008). Environmental degradation of the oil-rich Niger Delta region has been wanton and continuous with dire health, social and economic consequences for its people, for over three decades (Inoni, Omotor and Adun, 2006). Corroborating the above submission is the position of Worgu (2000), in his study titled Hydrocarbon Exploitation, Environmental Degradation and Poverty in the Niger Delta, that crude oil exploitation has had adverse environmental effects on soils, forest and water bodies in the host communities.

Volumes have been written over the years on the impact of oil activities on the environment, thus reinforcing its global significance. Chief among these sources of environmental degradation is oil spill. Kingston (2011) in his work, revealed that environmental degradation caused by the oil spill and other oil and gas activities has worsened the economic levels of the people by destroying the once abundant fishing grounds

and decreasing availability of quality agricultural land, thereby furthering impoverishment of those affected. There is therefore a linkage between environmental degradation and economic growth of the areas affected. In assessing the impact of oil activities on the environment and subsequently the implications on the economic development of the oil bearing communities, environmentalists agree on the adverse socio economic consequences of oil spill on the host communities citing the soil fertility as the most adversely affected by the crude oil thus creating a monumental reduction in agricultural productivity. In Opukri and Ibaba (2008), environmental degradation arising from oil spills result in internal displacement of communities, diminished productivity of farming and fishing, mass relocation, occupation and income losses, poverty, induced voluntary and involuntary migration, loss in ancestral homes and familiar surroundings, loss in religious and cultural artefacts, youth restiveness and inter community clashes. This view translates into colossal loss of income and source of livelihood, forcing the farmers to abandon their land to seek succour through other means which in most cases are not available. All these socio-economic problems associated with oil spill very much agree with the findings of Ikwuegbu (2007) and Iloeje (2014), which put the socio-economic damage caused by oil spill on the Niger Delta at 82%. The percentage damage is quite high judging by the results. It is very evident that the socio-economic life of the people in the Niger Delta revolves round the land and water resources. Pollution of the soil and water is instantly reflected on low agricultural productivity as well as reduction in quantity of edible aquatic animals and this translates into series of painful social and economic consequences. The soil is starved of relevant nutrients such as nitrogen, oxygen, etc. which the plants need for healthy development and growth while sea animals suffocate under the crude oil floating on the waters. In the process, economic trees and fishes are depleted and lost to the spills. This very deplorable situation has completely disorganised the traditional social and economic life of the people, thus making life most unbearable for them.

VI. Conclusion

The intensive and very aggressive oil exploration and exploitation activities in the Niger Delta Region have brought with it substantial economic growth of the Nigerian nation but not without severe socio-economic consequences to the oil bearing communities. In spite of the huge economic gains to the country, an overwhelming majority people of the Niger Delta people are yet to be economically emancipated. The degradation of their land and persistent pollution of their waters, through oil spills and other pollution agents, have contributed immensely to their economic woes. A major factor implicated in this situation is the obvious disconnect between the major players in the oil industry (MNOCs) and the relevant stakeholders. It is therefore advocated that appropriate concepts with which to manage the existing relationships be developed in order to address positional differences and guarantee effectiveness of policies and decisions critical to the healthy development of the existing system.

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