

HEALTH HAZARDS AND RELATED EFFECTS OF RESOURCE EXPLORATION ON SELECTED OIL PRODUCING COMMUNITIES OF UKWUANI LOCAL GOVERNMENT AREA OF DELTA STATE, NIGERIA

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Abstract

This descriptive study examined health and related effects of oil exploration on selected oil producing communities in Ukwani local government of Ndokwa North area of Delta state in Nigeria. The communities constitute major oil producing areas in the country. However, onset of oil exploration has brought about several challenges to the area that includes massive environmental degradation, health challenges and fatal crises or conflicts which are antithetical to development. The extent of deprivation and alienation suffered by the communities over the years suggests that oil exploration and activities of Oil Exploration Companies tend to attract greater degree of life/health threatening conditions when compared to its advantages. Many people in the area are displaced and alienated from their livelihoods. Also, farm lands are degraded which cripples socio-economic activities and lives of those who are dependent on the environment. Theories adopted for explanation in this study hinged on symbolic interpretive models of deprivation and alienation. Data was qualitatively and quantitatively gathered through the use of questionnaire, IDI, KII and case study. Thematic abstraction of responses and Statistical Package for the Social Sciences (SPSS) was used in data analysis. Findings revealed that oil exploration negatively affected the people and alienated them from their original source of livelihoods, even as they are not given good appointments in oil companies in their area. A total of 108 out of 409 respondents were also of the view that there exist oppression and mental subjugation of community members by security personnel watching over oil activities. The study concludes that the people were not allowed full access to benefits of oil exploration, creating frustrations that fuel majority of the crisis recorded in the area. It was thus recommended that the area should be made less vulnerable to environmental pollution, and should be linked to social welfare services in order to experience sustainable development.

Keywords: Deprivation, Alienation, Democracy, Oil Exploration, Sustainable development.

Introduction

In recent years, Ukwani local government in Ndokwa North area of Delta state has become one of the major oil producing communities in Nigeria and the world at large (Omeje 2004). Despite vast wealth generated by oil companies from oil exploration in the area, the benefits of their activities have not adequately trickled down to host community members. For instance, since the discovery and commencement of oil exploration, host community members have been forced to abandon their traditional agricultural practices (Anikpo 2015).

With oil exploitation in Ukwani local Government Area of Delta state, there have been series of environmental pollution and issues bordering on unsustainable development among oil bearing communities. The discovery of oil and its exploration in the area has induced major crises as community leaders and youths clash over benefits from government and the oil companies, (Omeje 2004, Bassey, Ndem, Kichuru, and Garba 2013). Also, prominent personalities in various communities began to shift boundaries in order to benefits from oil royalties. This has resulted to series of fatal conflicts among erstwhile united ethnic nationalities that have lived peacefully prior to onset of oil exploration. Apart from conflict arising from struggle over land and royalties, grievances over non remittance of oil benefits to host communities often trigger conflict whose outcomes are antithetical to development.

Also very evident are health challenges and excruciating poverty which are endemic to sustainable development (Amadi, and Tamuno 1999). Indeed, while oil exploration has generated large sum of financial benefits to oil companies, their home country and the Nigerian government, their chains of activities has altered the climatic condition, and has generated generic health problems and environmental hazards for members of host communities. According to Sajini (2013), the activities of the oil industries often release pollutants in form of gaseous discharges and oil spills into the air, land, and water components of the environment. According to her, the general process of obtaining fuel mineral; that is right from oil exploration, extraction, processing and transportation as well as storage and consumption generate one form of pollution or the other. Nwanne (2015), noted that with the ongoing oil exploration activities, Ukwani people are subjected to serious environmental degradation, thus subjecting them to untold hardship. Furthermore, the recent discovery of oil in Ebedei community (situated between Abraka and Obiaruku town) has resulted in large area of land been confiscated from community members. The process of confiscation and agitations for remuneration due to the damage caused by oil drilling and gas flare has caused unrest within the community. This has great implication for development.

Interestingly, sustainable development demands transformation of economic models that leads to less environmental destruction. It requires drafting rational ideologies that close the wide gap between the rich and the poor. Such national ideologies should propel equity, fairness, justice and healthy environment for all citizens. The government should engage in non profitable social enterprises, and when it is interested in innovations that prioritize profit and wealth, such are executed with immense concern for a healthy environment. This is because all citizens have right to live in a hygienic environment. Unfortunately, in oil producing communities under study, these rights have been truncated for no fault of theirs but through oil spills and gas flaring, a product of oil exploration.

A community where oil is explored becomes vulnerable to various health hazards, insecurity and lack of resource sustainability. Poverty heightened by resources depletion deprives youths of basic education that is required for further development, (Jonah, 2002).

In addition, forests which abound in oil producing communities and were often described as the 'world largest pharmacy' because they contain natural medicines in form of leaves, roots which according to Dokun (2008) are used for contraception, stimulants, tranquilizers, anti-malaria and epilepsy are also depleted by oil exploration activities. Food plants and root such as Banana, Mangoes, Papayas, Avocados, Cassava, Yam, fruit trees that are found within the forest are

destroyed during oil exploration. Uncontrolled utilization leads to unsustainable development practices which endanger the very base upon which human and non-human existence depends, (Dokun 2008).

Certainly, sustainability, a word derived from old forestry term 'sustained yield' connotes utilizing resource for today without necessarily destroying its future availability and consumption remain a major worry in oil exploration practices of the study area.. Environmental sustainability is the process of making sure that current processes of interaction with the environment are pursued with the idea of keeping the environment as pristine as naturally possible based on ideal seeking behavior. This seems not to be comprehensively adhered to yet in the area. It is in view of the above background and problems that this study was undertaken to examine the health and related challenges of oil exploration in oil producing communities of Ukwuani local area of Ndokwa North, Delta State, Nigeria.

Objectives of the Study

The general objective of this study is to examine health and related effects of oil exploration on selected oil producing communities in Ukwuani local government of Ndokwa North area of Delta state in Nigeria. Specifically, the study examined how resource exploration affected farmlands, forests, generated conflicts situations, and altered health seeking behavior of individuals in the study area. Also, the study examined how oil exploration activities impacted on livelihoods, disease vulnerability and sustainable development of oil producing areas.

Theoretical framework

Marx theory of alienation is adopted as theoretical platform for this study. The theory is hinged on lack of control by an individual or group over their environment which often results from deprivation and powerlessness. Alienation reinforces frustration and aggression (Nazrul, 2013). Less adapted persons navigate, isolate, revolt or surrender to the situation. Those who lack basic skills to adjust become estranged.

The contract of oil exploration between the government and oil companies illuminate the phenomenon of alienation and oppression of host communities. Contract agreement requires that oil companies abide by the terms of the contract. With conspiracy and offering of little token to the Okpalauku (traditional ruler) and few community heads, the terms of agreement are often breached. Moral principles of social contract binding the operators are abandoned during operation. Alienation involves lack of control on the part of the individual over his environment and reinforces frustration and powerlessness (Nazrul, 2013). Less adapted persons navigate, isolate, revolt or surrender to the situation. Those who lack basic skills to adjust become estranged.

Forest dependent community members like farmers become hopeless about their future livelihoods. That is, uncertainties about sustenance and lack of control over their environment. To put an end to the alienating effects of oil exploration, sustainable culture must be imbibed or the source of alienating forces should be destroyed.

Unrest which distorts transformation points towards alienation and deprivation of individual's socioeconomic needs. Apart from the fact that oil exploration lead to environmental degradation, exploration and exportation activities in the oil producing communities have permanently alienated community members from large tract of farm land (Duru, 2011).

Human Development Index reports show a widespread poverty and prevalence of numerous social vices. These people whose livelihood has been truncated with environmental pollution find it difficult to adjust. Some migrate for peace to avoid harsh living conditions. Activities that induce environmental degradation are influenced by a range of economic, social, political and environmental factors.

Materials and Methods

Study Design The study adopted a descriptive survey design. It involves description of activities of oil producing companies in Ukwani Local Government area of Delta State. The study was conducted using a multi stage random sampling method in selecting the research area, selecting communities and the relevant respondents.

Area of the Study The area of study was Ukwani local government area from where Ebedei was specifically selected. Ebedei located between Abraka and Obiaruku and its environment was purposively chosen because of its being a recent place where oil was discovered. This is coupled with the recent bloodshed crisis over wrongful allocation of royalties, the choice of wrong candidate outside Ebedei communities as representative at the Desopadec, land ownership and encroachment by different parties. Hence, Ebedei, Obiaruku, Adonishaka and Obinomba community members are more likely to recount fresh memories of the pains of losing farm land to oil exploration as well as effects of this exploration on livelihood. This is believed based on recent inception of oil establishment unlike other communities who may have adjusted to effects of loss of farm lands, oil spills over a long period of time. In each of the communities, 100 households were selected through random sampling. From each of these households, household heads were selected for in-depth interviews.

The Study Setting Ebedei located in between Obiaruku and Abraka communities has a total population of 11936 (2006 census). It is extended by 18 kilometers North of the River Ethiope, with latitude 5°85'N, and longitude 6°15'E. Ebedei is clan located in Obiaruku, the head quarter of Ukwani. Ebedei people claim that their ancestor 'Dei' came from Benin. He had two sons Okpu and Ezieogoli who founded the original settlement. It is bounded in the North by Benins, on the South by Akashiada clan, on the West by Edoid (Abraka, Urhobos) and South East by Ukwani's, Umukwata. Ebedei is a clan in Obiaruku, a town in Ukwani Local Government, Delta State, Nigeria with Umuedede, Ogba Ofu, Idale, Umusume, and Ghana Quarters. Obinomba, Owah Abe, Eziokpor, Umutu, Umukwata, Ebedei, Adonishaka comprises the surrounding communities. They are known as home of Agriculture. There is massive production of cassava, melon, maize, rubber lump, and yam. The location of Obiaruku makes it a focal point for trade popularly known as Afia Ogbe. They also engage in fishing, pumpkin leaves, local beans, and other stable crops. Their gerontocracy norm authorizes the eldest male as the leader of the community. They are a mono-linguistic group with Igbo dialect.

Early 20th century saw Obiaruku as commercial region for palm produce, rubber and timber. African Hardwood Company across the River Ethiope in Okuzu quarters. Quarters include Ogbe Obiaruku, Umu Edede, Okuzu, Obi Ugbe, Umu Esume. Akasaida was believed to migrate from settlement are Eziokpor, Ezionum, and Umuebu respectively. Eziokpor founded the Umu Esume quarters of Eziokpor.

Study Population The study population is 11936 out of which 409 respondents among which were household's heads who are farmers and oil workers as determined by krejice formula of sample determination were selected as participants for the study. A total of 8 key informants out of the 409 comprising 4 each from the two villages were purposively selected for interviews. Sampling of households was basically targeted at farmers and traditional petty traders.

Instruments The research question probed the effect of oil exploration on the environment, source of livelihood, health and sustainability implication of resource exploitation. This study captured the opinion of community members in relation to the products of oil exploration and livelihood. The qualitative methods probed the effects of oil exploration. Conflict and underdevelopment are products of resource conscription and environmental degradation.

Participants' respondents for this research were male and female within the age range of 24 – 65years and above. Major participants included indigenes who are basically farmers and oil workers who are either on the job, retired or relieved. Criteria for inclusion are those who are resident in the community as farmers or as workers or as relieved staffs.

Method of Data Collection In-depth interview, key informant, case study and observation were employed in the process of data gathering. Research began with a pilot study. During the pilot survey, key informants and units for case study were identified. Purposive sampling was used to select Ebedei community and households were the research was carried out.

Through the use of key informant and case study oil activities were examined from oil workers. Information on forest based livelihood was gotten from community members who are mainly farmers and traditional health care givers. Observations were documented from traditional health practitioners, farmers and marketers on field.

Open ended, semi structured questionnaires were used for gathering of in-depth interview data. The instrument was self administered. The in-depth interview session was complemented with participatory observational approach. Household heads were target participants for interviews.

Method of Data Analysis Data were analyzed descriptively using the statistical package for the social sciences. Data from semi structured questionnaire were coded, rekeyed and entered into the system for analysis. Analyzed data were sub divided into tabulations of simple percentages and tabulation. The correlation analysis explored the relationship between environmental alteration, its effects on livelihoods and health of community members.

Qualitative data gathered were analyzed using qualitative data analysis (QDA) of content analysis. Responses were captured verbatim and correlated-similar responses were coded side by side as related.

Data Presentation and Analysis

Relevance of Forest to Oil Producing Communities

Key informants and (69.7%) respondents revealed that, there is a linkage between the environment and food security in Ebedei community. According to these respondents, almost every aspect of the people's life is tied to the environment. The study validates the existence of land conscription from local farmers, degradation of the soil, destruction of farm products and lack of capital projects, light and establishment of infrastructures that will aid meaningful development.

With oil exploration, the economic activities which are tied to the environment are disrupted. This corresponds with the finding of Ogege (2013). With oil exploitation the hitherto fertile farmlands have regressively lost its fertility. The rivers are without fishes and the forests are now without animals. The trees are dried up and farm products reduced in its yields. This inadvertently affects sustainability of the cultural lifestyle of the people and food security in the area. A total of (73.4%) respondents revealed that food insecurity is heightened by unfavorable environmental policies of the government which are made to favour land leasing to oil company. With daily oil exploration activities, and its degrading emissions amidst the unfavorable laws, it is almost impossible to meet the daily dietary requirements and food preferences for the people. This which is needed for healthy life that is lacking pose a great threat to health. Farming and fishing activities are interrupted. Pipelines and storage facilities occupy arable farm lands. Most times, equipment failure emitted pollutants which renders the environment uninhabitable. With little or no alternative means of sustenance, farm produce within the polluted environment are consumed. These contaminated farm produce pose huge treat to the health of the people. The pollution destroyed the farm produce and exterminate fishes and other aquatic animals in the river to the extent that, they hardly meet up with present daily requirement. Preserving for the next season becomes evasive. Thus, food availability and accessibility, utilization and preservation have lowered.

A total of (76%) of the participants interviewed revealed that forest was green and luxuriant before the onset of oil exploration. A total of (24%) who seem to be indifferent or unaware of the situation are mainly oil workers who lack knowledge on the state forest before the inception of oil production in the area. A total of 97% agreed that forest resources supported every aspect of their daily life. About 73% respondents revealed that the accepted norms and values that pattern their cultural, political, spiritual, economic wellness and individual lifestyles resolved around forest. Consequently, the use of forest in satisfying their daily needs was an inseparable aspect of Ebedei lifestyles. While majority of the people rejoice that oil company is cited in the community, they also bear the pains which recent discovery of oil and the onset of massive exploration of oil and gas flaring subject them to suffering the effect of depletion of their natural resource, their way of life and forest related practices which were basic means of sustenance as well as maintaining wellness.

Environmental Degradation and Conflict

Prior to the establishment of Oil Company in Ebedei, community members and its neighboring communities shared common boundaries, culture, language and great values from common ancestry. The people maintained common identity; they were united as an autonomous community which has feelings of belongingness and reciprocity. They have sacred forest which they relied on for livelihoods and to which they pay allegiance. In recent time, farm products and other natural resources found within the forest around where oil drilling and gas flaring plant is situated display a yellowish coloration of leaves as a result of heat and drained nutrients. As an attempt to escape the effect of the heat emitted by gas flared, economic trees and crops which are proximate to the gas plant are bent towards the west. That is, bending away from the east side, the source of the fire. Close observation and responses from both farmers and oil workers showed that corn which are planted 100meter close to the gas plant do not produce flower which is needed for pollination and production of fruits. Hence they do not produce fruit or food. Any attempt of complaining by farmer's occasion serious warning and repressive attack on agitators

from highly equipped security personnel's guiding the environment. They shift blame for the bad harvest on poor species of farm products. In fear, farmers groan over bad harvest in silence. The situation is worst because they are not compensated for bad harvest in farm produce which result basically from gas flaring. Lands are forcefully taken from indigenes for oil and gas production. Those who are bold enough to complain are compensated but this compensation are not commensurate to the resources acquired. Little infrastructural and social benefits or non are given to the community, especially those whose land were taken or whose farm produce were damaged.

To quell agitations from community members, hard jobs like iron bending, heavy metal loading, driver, security and monitoring of oil gadgets are given to indigenes. They are subjected to hard labour as majority who were employed were relegated to dehumanizing jobs just to silence agitating citizens. These employed indigenes are easily fired based on minor errors or negligence. Indirectly, this builds up to a more chaotic environment because those who are relieved of their duty galvanize others by rally round to ginger community members to stage a fight against Oil Company. Having experienced the juicy nature of the company and other activities going on within the company, these fired indigenes later became an eye opener to community members. The circle of agitation and reappraisal attack continues unabated. Crisis therefore becomes imminent within the community. This situation can only be mediated if the company that employ as well as retaining those employed will act as safety valve to any further uprising.

Availability of Basic Amenities and Education

Out of the total sample frame, 200 respondents were isolated and their opinion samples on the provision of basic amenities and educational facilities. Below is the table showing the spread of responses along a likert scale format

Variables	A	SA	D	SD	Total
Famers	106	34	36	24	200
Water supply	26	34	31	109	200
Transportation	28	32	33	107	200
Education	64	71	28	37	200
Housing	11	15	78	96	200
Marketers	63	97	17	23	200

A total of 63and 97 respondents agreed/strongly agreed that they are farmers. This constitutes a larger proportion of the respondent. Result coupled with observation shows that they are purely farmers while a total of 63 and 97 respondents agreed /strongly agreed that they are marketers. Observation revealed that majority who are farmers also agreed to be marketers. The reason been that farmers also go to the market to either sell their farm produce or buy what they do not produce. A total of 26 and 34 respondents agreed/strongly agreed that there is water supply while 31 and 109 respondents disagree/strongly disagreed that there is no water supply. Responses and reactions show obviously that the community lack portable water. They have to walk miles away to get water from flowing streams which also acts as their bath tub, means of processing food and storage facilities. These are life threatening.

A total of 28 and 32 respondents agreed/strongly agreed respectively that there is good network of transportation while 33 and 107 disagreed/strongly disagreed that there are no good means of transportation. Observation corroborates the assertion by the later respondents. Apart from the federal road which runs across the town, there is no good road network especially within the community. Major means of local transportation is by foot or bicycle. Potholes on the road make it more difficult because they are force to exert more energy to paddle their bicycle and trucks for conveying farm products on the bad road.

A total of 67 and 71 agreed/strongly agreed that although their children are educated or attending to various skills acquisition schools, they are not sponsored by the oil company. They train these children from farm produce which is now bedeviled by recent oil drilling and gas flaring activities within the community. 78 and 96 disagreed/strongly disagreed that there is good housing within the community. Observation shows that there were patches of houses made with poor materials. Some have licking roofs, while some part of the hose is falling apart as a result of heavy wind. Trees that protect these houses have been up rooted or roasted by the fire emitting from gas flaring.

Importance of Oil and Gas Exploitation in Nigeria

Reponses	Percentage Rating
Foreign exchange Reserve	65%
Gross Domestic Product	80%
Income/Revenue generation	80%
National recognition	90%

The above table shows that oil and gas exploration provides a total of 65% foreign exchange earnings. This exchange has gone a long way in grafting the nation a footing in international market. Crude Oil drilled in Nigeria has been used in payments for exchange of products and offsetting of debts by Nigerian government. Oil product provides 80% gross domestic product which are consumed by the masses. Oil serves as 80% source of income generation. With all of these, Nigerians endowment with oil resources has earned Nigeria and Nigerians national and international recognition. Ebedei a rural community is known in international market as one of the oil producing communities in Niger Delta.

Transformation and Sustainable Development

Resposnes from the interview section couple with a knee observation of environmental condition within the community where oil is drilled with gas flared in Ebedei presents a picture of backwardness. In many developed countries, the presence of natural resource is an added advantage to the community where such resources are discovered. But in Nigeria, the profiteering orientation of foreign companies coupled with selfish interests of Nigerian government, key players within the host communities, majority who are poor suffer more pains of deprivation and alienation. This is more frustrating with the disparity of class and lifestyles of oil personnel who flaunt their affluence against poor members of host community. Little opportunities of becoming a representative to oil companies raises crisis among community

members. For instance, the objection to the nomination of a representative into Desopadec from Obiaruku instead of Ebedei/umukwata created a storm among indigenes both at home and Diaspora. Ebedei accused Obiaruku as the sole beneficiary in development accruing from government especially that relating to oil allocation which is not located in the community. Erection of Markets structures and political appointments into Desopadec is skewed to Obiaruku people while the Ebedei's bear the burden and effects of gas flaring. The people of Obiaruku are seen as lording themselves over Ebedei people. Therefore, the discovery of Oil and the allocation of resources present a level ground for the disintegration of a once united community. Few elites decide what happens to oil allocations and its distribution. A total of 108 out of 409 respondents revealed that there exist oppression and mental subjugation of community members by security personnel's. Even when they are given opportunity, they are offered the hardest form of job and easily fired on slightest error. This scenario has not allowed full access to benefitting from oil exploration. This hampers development

Development, Livelihoods and Environment

Nigerian government is faulted by not relating to changes in economic structure, institution, relationship and processes of a particular region, (Williams 1978). Development for the community should be considered out based on the people's needs. This should be people oriented and projected round Ebedei clan and indigenes. A total of 97% respondents revealed that most crisis and agitation that occurred in the past are based on the fact that the need of the community were not considered whenever there was an opportunity of supplying the community amenities. It therefore shows that community members are not consulted before social services are offered. According to the respondents, farm products are affected, they experience poor yields. This has resulted in food insecurity among the Ebedei. Pure and serene atmosphere enjoyed by members are lost to effect of oil exploration. Sources of livelihood are greatly altered. They are alienated from benefiting in equal measure the gains of having natural resource within their environment. They experience tense atmosphere emanating from grievances and lack of power in challenging the situation to better their condition. The experience of an indigene in Diaspora is recounted below;

I used to breathe in fresh air in the late 1990s when I moved to my house. Since 2003, the air quality within the town has deteriorated badly that I find it difficult to breathe. Interview 18/06/2013:10am.

The situation is worst with the expansion products produced and enlargement of area of land mass covered as production increases.

Traditional Herbal Practitioners

As a first aid care giver from time immemorial, every house hold engages in various forms of traditional health care services. Observations and responses revealed that most family heads use one form of herbs or the other for the prevention as to protecting themselves from various diseases and cure of illness. Nevertheless traditional practitioners within the community agreed that herbs are still available for use except for those found within the location where oil and Gas Company is located. Although people seem to go about with their daily activities, there are alterations in living conditions within the community.

Disease vulnerability and health seeking behaviors among the Ebedei people

A total of 112 out of 409 respondents believed that a typical Ebedei community member will seek health first from their immediate environment by providing self help before proceeding to a traditional doctor or the general hospital. In other cases they do the preparation themselves.

Conclusions

The endless form of deprivation and alienation suffered by majority who are mostly farmers in Ebedei:s awakened their consciousness on the danger of oil exploration and environment degradation. This raised a feeling of frustration which propels majority of them towards aggressive behavioral manifestation. Despite the volume of oil catered away from the community leaving them to greater degree of damage, they suffer immense environmental degradation and health problems. The community lack portable water supply, the bore hole were only erected around oil drilling area.

There exists absence of good road network within the community. Major means of local transportation is by feet and bicycle. Observation revealed that there were patches of houses made with poor materials from raphia palms. Some have licking roofs with some parts of the houses falling apart as a result of dilapidation. Even when the houses of the oil workers and security personnel are made with caravan, they are all air conditioned. They are feed with quality food. Community members watch these and they are moved to revolt against the forces that subject them to greater degree of suffering.

Recommendations

Development in Nigeria must consider the regions which suffers devastation as a result of resource exploration. In this regard Ebedei community should be prioritized in allocation of budget for development and alleviation of pains caused by dangerous emissions. They must take the responsibilities of relating to changes in economic structure, institution, relationship and processes (Williams 1978). This effort should be made to root out insensitivity on the part of government and oil companies.

Community and Oil Companies can realize mutual benefits if government makes policies that are mutually beneficial and supportive of sustainable development. Sustainable development is a co-evolution of human and natural system indicators. The indicators for sustainable development should be entrenched in oil producing communities. Such communities which are rural in nature with erstwhile relatively pure atmosphere and peaceful inter-personal relationship is now faced with rift that accompanies sharing royalties and land encroachment which must not be allowed to escalate.

There is need to balancing the environmental quality against resource use in Nigeria. Gas flaring alters life, indoor and external environmental quality such as air. Often oil company lack cordial relationship and integration with communities where operation is carried out. Gas flaring affects daylight, rain quality, weather and visual comfort around the communities where exploration is ongoing. Oxygen, natural ventilation and fresh air/healthy material are altered. Intermittent break periods could be used to allow the environment to recover, re-green and regrow to natural forms prior commencement of new explorations.

Oil company setup and maintain powerful health care services for their staffs. The communities whose resources have been depleted should not be allowed to suffer lack of hospital. Government should collaborate with these companies to protect the health and interest of host communities.

Oil companies often take the advantage of lack of political will on the part of the government not to implement environmental laws as it affects them. Government must take the initiative and enforce those laws. This will punish defaulting firms perpetuating unacceptable and substandard practices in environmental safety (Duru Emmanuel, 2011). Also, weak environmental laws that support indirectly underdevelopment in the Niger Delta region should be strengthened.

REFERENCES

- Adati A. K. 2012. Oil Exploration and Spillage in the Niger Delta of Nigeria. *Journal of Civil and Environmental Research* Vol 2, No.3, pp 38-51.
- Adesina S. K 2013. Oil exploration in Nigeria. Retrieved 13.05.2013 from <http://www.onlinenigeria.com/health>.
- Adeyemo, A.M. (2002). The Oil Industry Extra- Ministerial Institutions and Sustainable Agricultural Development: A Case Study of Okrika L.G.A. of Rivers State, in Nigeria. *Journal of Oil and Politics*, 2(1).
- Agbola, T. and Olurin, T.A. (2003). Landuse and andcover Change in the Niger Delta. Excerpts from a Research Report presented to the Centre for Democracy and Development.
- Agulanna. M.U. & Snowman, S.S. 2009. Food security in our society. *Journal of Population and Food Security*. 4 (2): 17-27.
- Amadi, S. N. and Tamuno, S. O. (1999). Oil Exploration in Nigeria: Its socio-Economic impact on the oil-bearing communities *Tiber*, Volume 3, No.1 January – June, 1999.
- Amu, L.A.O. (1997). A Review of Nigeria's Petroleum Industry. NNPC, Lagos.
- ANEEJ (2004). Oil of Poverty in the Niger Delta. A publication of the African Network for Environment and Economic Justice.
- Anifowose, B. (2008). Assessing the Impact of Oil & Gas Transport on Nigeria's Environment. U21 Postgraduate Research Conference Proceedings 1, University of Birmingham UK.
- Anon, 2010. Democracy. Retrieved on the 23.05.2013 from <http://www.stakeholderdemocracy.org/programmes/oilspills.html>
- Asthana, D. k and Asthana, M. (2006) A textbook of Environmental Studies. S. Chand & company , Delhi. Pp 215
- Botkin D, and Keller, E (1998) Environmental Science, Earth as a living planet John Willey & Sons, Inc Canada. Pp. 414
- Crosby and Faye, 1976. A model of egoistical relative deprivation. *Psychological Review*, Vol 83.2:85-113 American psychological association
- Dokun, O.P 2008. Sustainable Development Issues and Challenges for Nigeria. Daily Graphics, Ibadan. Xxvii +379
- Duru, E. 2011. Environmental Law and Underdevelopment in the Niger Delta Regionn. Retrieved on 1st June, 2013.
- Elis G. (1994). Shell in Nigeria: what are the issues <http://www.essentialaction.org/shell/issues.htm>
- FAO 2001. Handbook for defining and setting up food security information and early warning system. Rome: Italy.
- FEPA (2001). Delta State Environmental Action Plan – Final Report Pp. 95

- Jonah, O. 2002. Youth Education and Sustainable Democracy in Nigeria Nsukka Journal of Humanities No. 12.1:41-55
- Kharaka, Y. K. and Dorsey, N. S.(2005) Environmental issues of Petroleum exploration and production: *Introduction Environmental Geosciences*, v. 12, no. 2 (June 2005), Pp. 61–63
- Nazrul, I. 2013. Theories of Alienation-Marx, Weber and Mannheim in a Comparative Perspective. Pp 1-17
- Nwanne U. B. 2015. Environmental degradation and the corporate social responsibilities of oil companies in Nigeria. In oil theft, environmental degradation and reciprocal responsibilities of host communities and the government in Nigeria Ewhrudjakpor, Atubi and Etemike edited. Pp 83-102
- Olujimi, J. A, Adewumi, E. A. and Odunwole S. (2011) Environmental Implications of oil exploration and exploitation in the coastal region of Ondo State. *Journal of Geography and Regional Planning* Vol. 4(3) Pp. 110 – 121.
- Omajemite, B. U. (2008). The Economic Dimensions of the Niger Delta Ethnic Conflicts: In Omotor et al (eds) *Conflict Management and Peace Building in Africa*. Volume II Pp. 273
- Omeje K 2004. The state, conflict & evolving politics in the Niger Delta, Nigeria. Review of African Political Economy No.101:425-440. ROAPE Publications Ltd
- Oseji, J.O. Asokhia, M.B. Okolie, E.C. 2006. Determining of Ground Water Potential in Obiaruku and Environs Using Surface Geoelectric Sounding Springer Science and Bussiness Media LL Journal of Environmentalist, Vol. 26.4:301-308.
- Richard, J. E. 1993. Toward Sustainable Development. From Theory to Praxis Social Development Issues 15.3: 1-29
- Sajini F. I. 2013. Socio-Economic Problems of Oil Exploration and Exploitation in Nigeria's Niger Delta. *Journal of Energy Technologies and Policy* vol.3, No.1, pp 76-80.
- Wikipedia, 2010. Criticisms of Democracy. Retrieved on the 23.05.2013 from http://en.wikipedia.org/wiki/criticism_of_democracy.html.
- Worlu, R. E. (2008). Oil Conflict, Nigeria Unity: the Linkage and the Divide. In Omotor et al (eds) *Conflict Management and Peace Building in Africa*. Volume II Pp. 395.