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ENVIRONMENTAL SUSTAINABILITY AND CORPORATE SOCIAL RESPONSIBILITY IN THE PETROLEUM INDUSTRY IN NIGER DELTA REGION OF NIGERIA

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ABSTRACT: *This study investigated environmental sustainability and corporate social responsibility (CSR) in the petroleum industry in Niger Delta Region of Nigeria. The petroleum industry is the mainstay of the Nigerian economy and as in other global countries where exploration of petroleum and other minerals take place, zero emission is impossible. Thus, there is no doubt that production of noneconomic materials such as emissions and waste will be an ongoing process from petroleum activities. However, the need for environmental sustainability for the existence of life in the study area cannot be compromised. Thus, this study used qualitative research approach by means of examining scholarly papers of the subject, content analysis and environmental reporting for discussion. The study found that corporate social responsibility of oil petroleum companies is preoccupied with demands made by local communities for relief materials and compensation on the occurrence of pollution while environmental remediation is politicized. This may be the result of lack of knowledge of the long run effect on the environment or possibly for selfish gains by the host communities or as a deliberate action by the oil companies or government to mislead the locals on the demand for remediation of the environment. Additionally, the study found low environmental reporting in recent years suggesting lack of interdependence and oversight, lack of technical competence on the part of regulatory bodies, lack of technical competence on the part of community representatives, lack of transparency one the part of oil companies, amongst others. This study recommended interdependence of environmental reporting and continuous orientation on the adverse effects of petroleum activities should be considered in CSR activities. Additionally, present, and future generations should demand for environment remediation in future legislations regarding oil spills and environmental degradation in the Niger Delta region.*

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INTRODUCTION

Economic wellbeing globally is the product of the management and productivity of the environment. This is because it is the basis by which reproduction of the various forms of life is derived from and produces the resources from which we have shelter, food, artifacts, and clothing, among many other necessities of life. A society develops economically as its members jointly increase their capacity for dealing with the environment (Rodney,1972).

However, with the quest for development, societies are transformed from their natural states to modernity and with increasing population, the balance between man and his environment break-down as wastes are emitted into the environment in the process of producing goods and services for human existence and in the process causes depletion of global resources (Roseland, 1998). These wastes in form of particles, substances, and gases are released into the air, water, and soil that have negative effect on the environment (Hunjet, Jurinic and Vukovic, 2020). Additionally, Meagher (2018) posited that the extraction and production of oil often come with environmental costs, including pollution and habitat destruction which threaten the livelihoods.

Thus, economic decisions to enhance economic growth globally that produces wastes have dealt severe blows on nature and environment. Even though tremendous wealth has been generated as a means of promoting economic growth through the extraction and exploitation of natural resources, this has resulted to serious environmental challenges. Similarly, environmental abuse resulting from uncontrollable consumerism is prevalent in our various societies globally (Kramer and Johnson, 1996). In addition, Ofomata and Ez-phil, 2001; Imoh, (2009) and Environment Canada (2009) opined that environmental problems are social problems that arise due to people, their number and livelihood activities, with the irony that only the people (who often end up as its victims) can remedy the problems themselves. Thus, the balance between the use of the environment by humans to sustain its needs and the preservation of the environment to sustain man is a major concern to individuals, corporate bodies, and societies in the global community.

In the same vein, Dahiru (2017) noted that economic mineral exploration activities have become more intensified and widespread in recent years due to the growing human population, advancement in technology, and affluence. Therefore, the growing need to meet the compulsive demand and consumption of mineral resources has led to increasing spate of the activities that tinker with ecosystems functions and environmental sustainability.

In the oil industry, corporate social responsibility supposed to aim at clean, renewable, sustainable forms of energy while pursuing their business interest and avoid polluting the environment and take responsibility by cleaning it up if they do. Nevertheless, responsibility is not just about having good environmental practices. A company's contribution to the greater good by way of allocating more time, money, and effort to charitable organizations and maintaining safe, inclusive, and ethical workplaces are also considered important as a corporate responsibility leader.

The purpose for the establishment of a company is to make profit. However, environmental issues are increasingly considered as major important risk factor for the global economy. The negative consequences of the oil and other minerals have been identified in several studies (Dahiru, 2017; Zabbey, Sam, and Onyebuchi, 2017; Moore, 1978). OECD (1996) contended that tremendous attention has been directed towards environmental damage by activities which

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affect livelihood and the ecosystem. Air pollution, water scarcity and the despoliation of natural capital has become credit, market, and legal risks for businesses.

Thus, environmental degradation is gaining global recognition as it poses significant negative effects on present and future generations. Nigeria where poverty and other socioeconomic problems seems to the highest priority objectives, issues of the environment have been on the rise mainly because man's continued stay is dependent on the environment. Environmental hazards of petroleum industry operations are heightened because petroleum deposits in form of oil and gas are often located in developing economies near areas of high biological diversity and high ecological vulnerability, such as rain forests, mangroves and protected national parks (Frynas, 2009).

In the Niger Delta region of Nigeria, contamination of the total environment consisting of air, biota, soil and water by crude oil exploration and exploitation has become a paramount concern. Similarly, the mangrove ecosystem is fast degrading that have necessitated demands for urgent remediation (Zabbey, Sam, and Onyebuchi, 2017). This therefore necessitate sustainability of the environment for future generations.

Environmental sustainability as a CSR objective in Nigeria is not new. Prior to the Petroleum Industry Act (2021), there has been Environment Impact Assessment Decree No 86 (1992), Federal Environmental Protection Agency (FEPA) 1988, National Oil Spill, Detection, and response Agency (NOSDERA) Act of 2006, The Water Resources Act, 1993, among others. (Debski, 2022). However, the results of these regulations have not yielded the much-needed environmental protection in the Niger Delta region of Nigeria as despoilation of the environment in the region is persistent due to activities of petroleum exploration and exploitation. Admittedly, in such a technically challenging industry, accidents happen. Therefore, societies seek oil and gas companies to do more to guide against risks to society than merely comply with the law. Perhaps more so than any other industry, people demand corporate social responsibility (CSR) from oil and gas companies (Spencer, 2010).

The sustainability corporeality concept was formed to identify and prioritize the sustainability issues that are most important to the company, its stakeholders, and the communities in which it operates (Calabres, 2019). However, as Ogula (2012) posited, CSR practices in the oil-rich region were apparent by the host communities and observers as mere attempts to act in a manner that seems to be socially responsible, or actions taken only to protect the companies' reputations (Ogula, 2012). This paper examines the effectiveness of CSR on environmental sustainability in the Niger Delta communities. The region comprises the states of Akwa Ibom, Bayelsa, Cross Rivers, Delta, Edo, and Ondo.

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LITERATURE REVIEW

Environmental degradation signifies damage inflicted on the biosphere as a whole owing to precarious and nefarious activities of human elements. This transpires when nature's resources are being consumed faster than nature can replenish them, when pollution results in irreparable damage inflicted on the environment, or when human beings destroy the ecosystem in the process of development (Ugochukwu, Ertel, and Schmidt, 2008).

The concept of corporate social responsibility implies activities such as providing support to the community such as investing human capital and the environment, maintaining good relationships with stakeholders and ethical behaviour in business with the aim of creating added value for the organization and a more pleasant and healthier environment in general (Hunjet, et al, 2021). The term corporate social responsibility in simple terms is any action a company does to benefit the relationship between the company and the community, and to make a positive difference in the community with employment engagement, financial support, and volunteerism (Kotler and Lee (2009). CSR according to Debski (2022) is primarily voluntary and therefore, no formal regulation controls it which makes companies self-regulate by establishing their own social and environmental standard in line with global guiding principles and reporting standards.

The concept of sustainability encompasses to the safeguarding the ways of life of people affected by these hazards especially in developing countries. Environmental sustainability is usually a part of corporate social responsibility. For many companies, treating the environment well important, and the value may be reflected in their CSR programmes. Within the petroleum industry, environmental sustainability is defined as the responsible use of petroleum resources to reduce their negative impact on the environment and host communities and to preserve the environment for future generations (Debski, 2022). However, according Arscott (2021), in the petroleum industry, environmental sustainability does not mean the ability to continue production infinitely, but it advocates dealing with the global energy demand responsively at a reasonable cost while also protecting the environment until an eco-friendly product becomes commonly accessible

The theoretical framework of this study is eclectic based on Freeman (1984) and Segal and Whinston (2010) property rights theory. Freeman's stakeholders' theory stated that effective management demands a balanced thoughtfulness of and attention to the rightful interest of the stakeholders. The theory affirms that for a business to survive, different stakeholders in the business must be given adequate consideration by initiating policies that would guarantee their interest to create a balance between the different stakeholders. Property rights theory posits that property owners possess a variety of legal entitlements, including the right to use and exclude others from the property.

According to Hunjet, et al, (2020) some social issues are easier to support than others, so deciding which social issue an organization will choose is perhaps the biggest challenge as it affects subsequent programmes and outcomes. Kotler and Lee (2009) posited that there are several ways to address a social issue to benefit stakeholders. These include community service, corporate philanthropy by contributing towards others in the community, corporate marketing by embarking campaigns aimed at behavior changes in society, community service by employing volunteers, corporate cause promotion by supporting growing concern and

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awareness for social causes and socially business practice in the day-to-day business based on increased social responsibility

Empirical studies show that resource availability in society is a basic source for development (Alexeev and Conrad, 2009). The utilization of resources to improve living conditions is a critical factor of development. Kimenyi and Lewis (2016) posited that natural resources have the potential to be a boom for economies when managed well and can create an environment for the effective use of the revenues with proper management, transparency and engagement of stakeholders otherwise it will undermine development. However, mineral resource exploration is one of the most environmentally devastating and the most important part of history, civilization, and imperialism that provides basic raw materials and commodities of modern economies through which many developed countries first became industrialized and prominent, while in the case of developing states like Nigeria, it is a viable means of raising their overall socio-economic status for the better, the problems associated with which are both significant and complex (Mallo, 1999).

Phillipe (2023) identified three main environmental degradation problems: climate change, soil erosion and deforestation. The study also includes other causes to include global warming, ozone layer deletion, and depletion of biodiversity. Regarding rural environment, the study further stated that desert encroachment, flooding along the riverbanks, lakes and streams, and other channels; bush burning, dumping of toxic wastes, gas flaring, improper waste disposal, obnoxious fumes emission, indiscriminate felling of trees, land reclamation and massive exploitation of land and sea resources without replenishment are challenges to human existence.

Nicholas, Tarilayefa and Ereke-Owei (2022) used survey method to examine the effect of oil spillage in Opuama kingdom in Bomo Ibe Southern Ijaw LGA of Bayelsa State. The study asserted that the social and environment cost of oil has been extensive and include destruction of wildlife, biodiversity, and pollution that damage the ecosystem with severe health challenges for the inhabitants of the study area. The analysis was performed with chi square technique and showed oil-spillage tremendously affected the environment, the study recommended that there should be constant environmental monitoring and the provision of relief to affected communities by assisting them in their socioeconomic wellbeing. Furthermore, due to the devastating effects, the need to ensure good relationship between stakeholders and the need to protect the environment has been a common concern and this has led to the introduction of corporate social responsibility.

Moore (1978) opined that oil exploration has disastrously impacted the social and physical environment of the Niger Delta region, oil bearing communities and threatens the subsistence economy and biodiversity and their entire livelihood. Arugau and Eseduwo (2014) examined poverty and sustainable development and activities of illegal refineries using both primary data and secondary information in Southern Ijaw LGA of Bayelsa state. The study found that illegal refineries structured in four categories such as unions, tap points, the clamp owners and distribution points in the study area was because of poverty and on the other hand destroyed the ecology of the area, thus contributing to further poverty in the area.

Argaewhule (1997) asserted that oil companies are showing social responsibility by instituting community service and training programmes such as vocational skills for youths, scholarship schemes and offers discretionary work contracts with tribal chiefs and leaders, conducts

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operational awareness seminars, crisis management training and people-oriented projects such as water and electricity supply, construction of classroom blocks, laboratories, and hospitals.

Igbara, Etu,Alobari, and Naenwi (2014) using primary data to evaluate CSR of oil and its role in community development projects in Rivers state, Nigeria and found among others that the perceived needs of the host communities differ significantly with that of the oil companies and lead to failure or abandonment of projects that instigates conflicts between host communities and the oil companies. The study highlighted development needs of various oil producing communities to include education, job/empowerment, infrastructure, health, agriculture and security among which education is ranked first.

Additionally, Victor and Okpu (2021) noted in their study that some of the CSR initiatives adopted include schools, healthcare facilities, rural water projects, scholarship awards, cash donations, agricultural programmes, and road constructions, and other philanthropic gestures. The study further stated that host communities' continuous aggression towards the oil companies suggests that these measures were inadequate over the long term. predicated on the primacy of business objectives and focused on fulfilling only the most minimal ethical obligations. This according to DesJardins (2006), CSR practices not often vary from legal compliance and providing the "moral minimum".

Oboh (2018) investigated corporate social responsibility and the welfare of Nigerian Niger Delta landowners using content and inductive techniques in the analysis. Data was obtained through interviews from participants selected from different backgrounds. The results revealed that CSR initiatives in the Niger Delta lack a community-centric framework to ensure optimal and sustainable returns on CSR investments for multinational corporations and local Nigerian landowners.

Zabbey, Sam, and Onyebuchi (2017) opined that land contamination remediation in the Niger Delta region of Nigeria is ad hoc and utilizes the do-nothing approach to clean up. Impact of oil toxicity on the environment and exposed population is variable and deleterious. Different factors including overlapping governance structure, stakeholder conflict, funding and lack of expertise is a challenge to land contamination remediation. Bioremediation is a potential approach to effective and efficient clean-up given its low greenhouse emissions and environmental footprints.

UNEP (2011) pointed out that Nigeria is yet to develop policies that meet international standards in dealing with land contamination despite widespread environmental contamination in the Niger Delta region. This has aggravated socio-economic, and environment impacts in the region, in some serious cases lead to arms confrontation between groups in the region

Okeke (2021), posited that sustainability is a growing concern in the petroleum industry globally due to the negative environmental impacts of their extraction and use which have necessitated petroleum industry companies are adopting more sustainable practices in their operations by reducing their greenhouse gas emissions. (Zhong and Bazilian, 2018; Makitie et al., 2019) asserted that variety of methods, such as investing in renewable energy sources, implementing energy efficiency measures, and utilizing carbon capture and storage technologies can be used to achieve sustainability.

Martin-Roberts et al., (2021), also asserted that companies strive for sustainability by minimizing the environmental impact of their operations, comprising actions such as by means

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of additional environmentally friendly drilling and extraction techniques, managing waste and water resources reliably, and protecting natural habitats and biodiversity. The study further asserted that petroleum companies are also employing more techniques to improve the sustainability of their products by developing cleaner-burning fuels and reducing the carbon intensity of their processes, aiming the carbon neutrality. Additionally, the petroleum industry is working to become more sustainable to address the environmental challenges our planet is facing and meet the growing demand for more sustainable energy sources for future generations (Bandeira., et al (2023).

METHODOLOGY

This study employed a qualitative research approach by means of examining scholarly papers of the subject matter and useful contents extracted through content analysis for discussion. Review of extant literature helped us to properly situate this work and enrich our understanding of the issues at play. Content analysis is a flexible method and gives a certain advantage in the process of review of the relevant material as it also saves time, which is a luxury of the research process (Bryman, 2008). Additionally**,** this study utilized environmental reporting to allow us provide evidence that oil companies have made some improvements in their environmental practices over the years.

DISCUSSION

Environment is the source of all the resources needed by any business to accomplish its objectives. However, environmental sustainability which is an essential factor towards achieving sustainable development has been reduced and overwhelmed by the activities of oil producing companies in the Niger Delta region of Nigeria and has triggered environmental degradation caused by oil spills and host of other factors. Naturally, the extraction of oil has its negative impact on the environment. The exploration and exploitation of oil have caused a lot of havoc because farmlands, fishes, food production are severely affected because of oil spills and gas flares which are not economically viable, sustainable, healthy, and palatable to humans. Oil spillage and gas flares have been a source of nuisance to our environment. In the Niger Delta region of Nigeria this have remained a major threat to livelihoods for decades occasioned by seismic operations, oil theft and oil refining with serious implications on climate change, flooding and food insecurity that are not unsustainable to the environment.

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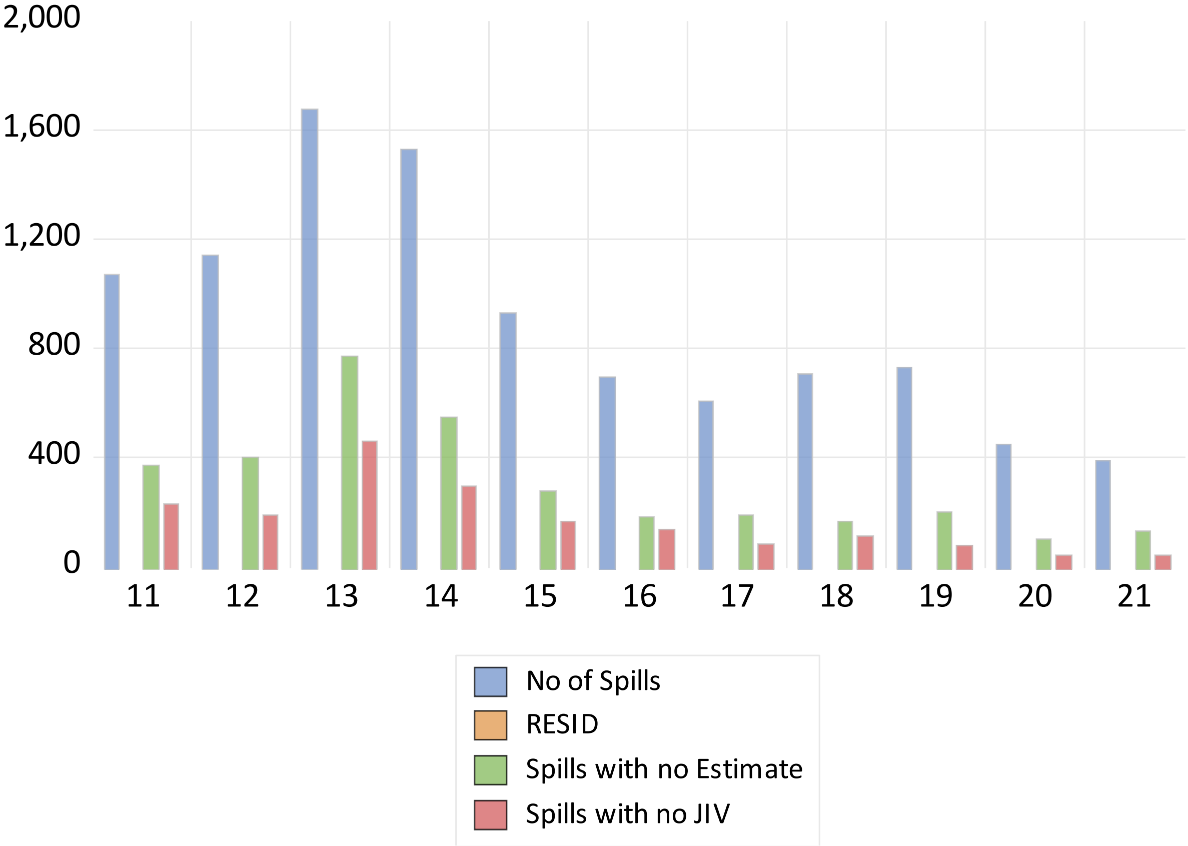
Figure 1: environmental reporting in the Niger Delta region



Source: authors' compilation from nosdra.oilspillmonitor.ng

Figure 1.0 showed multiple spills in the Niger Delta region from 2011 to 2021. The figure showed that there has been reduction of number of spills from 1059 in 2011 to 382 in 2021. This reduction in number of spills can be explained in the consistent reporting of spills and management of spills with technical and managerial capabilities of oil and gas companies and the involvement of consultants in reporting to reduce spills in the region. However, the number of spills without oil spill volume estimation varies in the period of study. Additionally, the joint investigation visits (JIV) have been on the decrease in recent years of the study indicating lack of interdependence and oversight, lack of technical competence on the part of regulatory bodies, lack of technical competence on the part of community representatives, lack of transparency one the part of oil companies, amongst others.

However, the quest for a sustainable environment in the region is minimal juxtaposed with other social responsibilities such as education, infrastructural development, job/employment, hospitals, and schools as demands made by stakeholders in the local communities. It is common as shown in the various studies cited in this study that in the Niger Delta demands made by local communities on the occurrence of pollution are relief materials, compensation without seeking for environmental remediation. This may be the result of lack of knowledge of the long run effect on the environment or possibly for selfish gains or as a deliberate action by the oil companies or government to mislead the locals to demand for remediation of the environment. The Ogoni clean-up is a case in point where despite international and national commitments has been made, the project is delayed due to various factors such as lack of funds and

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disagreements between stakeholders. The implementation of the project necessitated the establishment of Hydrocarbon Pollution Restoration Project (HYPREP) an agency under the Ministry of Environment.

In the Niger Delta region, before the enactment of the Petroleum Industry Act, 2021, cluster boards were formed to liaise with oil companies to carry out CSR activities such as empowerment schemes, scholarships, infrastructures, and environmental conservation activities to promote cordial relationship between companies and communities with the objective of achieving corporate objectives and community development. However, CSR initiatives lack a community-centric framework and in most cases, perceived needs of the host communities differ significantly with that of the oil companies and lead to abandonment of projects that instigates conflicts between host communities and the oil companies. Additionally, land contamination remediation is ad hoc and utilizes the do-nothing approach to clean up as in the case of Ogoni clean up in Rivers State

The PIA identifies several interest groups. These include licensed Oil and Gas Company, an external government regulatory agency and the host community. This framework, according to Debski (2022) is a default faulty command and control template for the Nigeria petroleum industry over resource maximization directly or indirectly. This is a negation of the Freeman stakeholder theory as the interest of the landowners and communities are not given due consideration. It is expedient that present and future generations should demand for environment remediation in future legislations regarding oil spills and environmental degradation in the Niger Delta region.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of corporate social responsibility on environmental sustainability in the Niger Delta region of Nigeria that is home of petroleum exploration and exploitation activities. The study found that corporate social responsibility of oil petroleum companies is preoccupied with demands made by local communities for relief materials and compensation on the occurrence of pollution while environmental remediation is politicized. This may be the result of lack of knowledge of the long run effect on the environment or possibly for selfish gains by the host communities or as a deliberate action by the oil companies or government to mislead the locals on the demand for remediation of the environment. At the corporate level, making decisions about actions towards Corporate Social Responsibility (CSR) and sustainability, communities should be considered who are impacted. By putting communities in the forefront in decision making, a CSR programme will be able to cater to those who care about the programme and be able to enhance innovation as a company. As one of the key signs of environmental engagement, oil companies now provide extensive environmental reports to address environmental issues. This study recommended interdependence of environmental reporting and continuous orientation on the adverse effects of petroleum activities should be considered in CSR activities. Additionally, present, and future generations should demand for environment remediation in future legislations regarding oil spills and environmental degradation in the Niger Delta region.

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REFERENCES

Alexeev and Conrad (2009). The elusive curse of oil. *Review of Economics and Statistics.* 91, 586-598

Argaewhule, W.(1997). Oil companies, communities and social responsibility. training and Development 51(7)

Arugu, A, L, & Eseduwo, F.S. (2014). Poverty and sustainable development in Bayelsa State: a survey of selected communities in Southern Ijaw LGA OF Bayels State. International Journal odf Advanced Studies in Ecology, Development and Sustainability (2)11741-8763

Baldassarre, B., Keskin, D., Diehl, J. C., Bocken, N., and Calabretta, G. 2020. Implementing sustainable design theory in business practice: A call to action. *Journal of Cleaner Production,* 123113. http://doi:10.1016/j.jclepro.2020.123113

Bryman, A. (2008). Social research methods. 3rd Edition, Oxford University Press, New York

Calabres, A., Costa, R., Ghiron, N.L., and Menichini, T. 2019. Materiality Analysis in Sustainability Reporting: A Tool for Directing Corporate Sustainability Towards Emerging Economic, Environmental and Social Opportunities. Technological and Economic Development of Economy. http://dx.doi.org/10.3846/tede.2019.10550

Carter, C. R., and Rogers, D. S. (2008). A framework of sustainable supply chain management: moving toward new theory. *International Journal of Physical Distribution & Logistics Management*, 38 (5), 360–387 http://doi:10.1108/09600030810882816

Dahiru, M.K. (2017). Impactof barites mining on the environment of Azara area of Nasarawa State. Unpublished PhD Thesis, Geography Department, University of Jos.

Debski, J.. (2022). Corporate social responsibility under the Petroleum Industry Act 2021.: achieving environmental sustainability through multi-stakeholder partnership. *African Journal of engineering and Environmental Research* 3(1) 1-24

Environmental Canada (2009). Environment code of practice for metal mines 1/MM/17, Canada

Freeman, R.E. (1984). Strategic management: a stakeholder approach. Boston, M.A: Pitman/Ballinger

Hunjet, A., Jurinic, V., Vukovic, D. (2021). Environmental impact of corporate social responsibility. Globalization and its socio-economic consequences2020. SHS Web of Conferences 92 , 06013. http://doi.org/10.1051/shsconf/20219206013

Imoh, E.U., (2009). Perspectives on environmental management(Ed). Environmental system Inc,
Uyo Nigeria 32-338

Igbara, F.N., Etu, N.O., Alobari, C.M & Naenwi, M.O. (2014). Corporate social responsibility and the role of oil companies in community development projects in Rivers State, Nigeria: an evaluation. *IOSR Journal of Humanities and Social Science* 19(3), 92-97.www.iosrjournals.org

Kramer, J.C., & Johnson, C.D (1996) sustainable development and social development: necessary partners for the future. *Western Michigan University Journal of sociology and Social Welfare* 23(1)75-91

Kotler, F.I & Lee, N (2009). Drusteveno

Makitie, T., Normann, H. E., Thune, T. M., and Sraml Gonzalez, J. (2019). The green flings: Norwegian oil and gas industry's engagement in offshore wind power. Energy Policy, 127, 269–279 doi:10. 1016/j.enpol.2018.12.015

Martin-Roberts, E., Scott, V., Flude, S., Johnson, G., Haszeldine, R. S., & Gilfillan, S. (2021).

Carbon Capture and Storage at the end of a lost decade. One Earth. https://doi.org/10.1016/j.oneear.2021.10.002

Mallo, S.J. (1999). Reclamation Of mined out areas. A case study of the Jos-Plateau. *Nigeria Mining Journal* 3(1), 17-25

Meagher, K, (2018). *Oil booms and business busts: why resource wealth hurts entrepreneurs in Africa.* oxford University Press

Moore, M. (1978). Truth, thrust and market transactions: what do we know? *Journal of Developmental Studies* 36(1)74-88

Nicholas., Tarilayefa, C and Ereke-Owei, D (2022). The effects of oil spillage in Opuama Kingdom in Southern Ilaw LGA, Bayelsa state. *International Journal of Innovative Environmental Studies Research* 10(3)1-16

OECD (1996). Organization for Economic Co-Operation and Development: Economic Management: Canada, Institute print Editors

Ofamata, G.E.K., Eze-Phil, P.O. (2001). Environmental problems and management in Nigeria. Enugu; Nigeria

Okeke, A. (2021). Towards sustainability in the global oil and gas industry: Identifying where the emphasis lies. Environmental and Sustainability Indicators, 12, 100145. doi: 10.1016/j.indic.2021.100145

Oboh, C. (2018). Corporate social responsibility and the welfare of Nigerian Niger Delta landowners. Walden dissertation and Doctoral Studies. Walden University. https//: scholarworks.walden.edu/dissertations

Ogula, D. (2012) 'Corporate Social Responsibility: Case Study of Community Expectations and the Administrative Systems, Niger Delta', *The Qualitative Report 2012*, 17, 1-27

Phillipe, L (2023). Causes, effects, and solutions to environmental degradation. Stories of life change

Rodney, W (1972). How Europe Underdeveloped Africa. London: Bougle-□Ouverture.

Roseland, M. 1999. "Natural Capital and Social Capital: Implications for Sustainable Community Development," in J.T.Pierce and A. Dale, Editors, Communities, Development, and Sustainability across Canada. Vancouver: UBC Press: 190-207.

Segal I.R & Whinston, M.D. (2010). Property rights. S*tanford Law and Economics Olin Working Paper* 394

Spencer, D.. (2010). Corporate social responsibility in the oil and gas industry: the importance of reputational risk. Chicago-Kent Law Review 86(1)59-85

UNEP (2011). Environmental assessment in Ogoniland. UNEP, Switzerland

Victor, Tarilate1& Okpu, T.0 (2021). Corporate Social Responsibility: A Study of Factors influencing Host Community Perception and Expectations of Oil Companies in the Niger Delta, Nigeria. *IOSR Journal of Business and Management* 23,(4).11-17

Zabbey N., Sam, K and Onyebuchi, A.T. (2017). Remediation of contaminated lands in the Niger Delta, Nigeria: prospects and challenges. Science of the Total Environment.www.eslevier.com//locate/scitotenv

Zhong, M., and Bazilian, M. D. 2018. Contours of the energy transition: Investment by international oil and gas companies n renewable energy. T*he Electricity Journal*, 31 (1), 82–91 doi:10.1016/j.tej.2018.01.001

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APPENDIX 1
Multiple Spills in the Niger Delta region of Nigeria

Year	No of Spills	Major Spills	Spills with no Estimate	Spills with no JIV
2011	1059	2	359	218
2012	1135	4	391	179
2013	1666	1	762	450
2014	1521	8	540	284
2015	920	4	268	158
2016	684	5	173	129
2017	599	6	178	73
2018	699	0	154	104
2019	723	5	192	70
2020	440	0	90	35
2021	382	2	122	33

Source: nosdra.oilspillmonitor.ng

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