AN APPRAISAL OF THE IMPACT OF THE NATIONAL OIL SPILL DETECTION AND RESPONSE AGENCY ON ENVIRONMENTAL POLLUTION IN NIGERIA*

Abstract

The paper examined the National Oil Spill Detection and Response Agency (NOSDRA) as a management tool in curbing environmental problems associated with oil exploration and spillage in Nigeria with a view to proffering solution(s) where necessary. There is no doubt that the discovery of oil in Nigeria has been of immense benefit to the country and the citizenry at large, however the implications of the pollution caused by oil spillages are far reaching and has constituted serious danger to, mankind and the environment. As a result of oil spillages, farmlands have been destroyed and rendered unproductive, aquatic lives and sources of water are not spared as the waters are contaminated and aquatic lives destroyed, living houses are overrun by the oil and the people living in those areas are exposed to serious health hazard as a result of the effect of the oil spillages on water. farmlands etc. The paper examined the concept of environment and environmental management vis a viz the legislations put in place for the protection of the environment. The paper discovered that prior to the enactment of the NOSDRA Act, most of the existing legislations on the protection of the environment did not make adequate protection against the environment as a result of oil spillages. The paper further reviewed the NOSDRA Act and the functioning, prospects, limitations and challenges of NOSDRA as an agency charged with the responsibility of detecting and promptly responding to the incidences of oil spillages in Nigeria. The paper adopted the doctrinal research method using statute books, text books; law reports, internet materials etc and recommendations as to the way forward are proffered.

Keywords: Oil Spill Detection, NOSDRA, Pollution, Nigeria

1. Introduction

The oil and gas sector is a contributor of environmental hazards in any given nation and the world at large hence, the special treatment which ought to be given to the sector especially as it concerns safe, healthy and sustainable environment. The hazards may be in the form of greenhouse gases, poisonous chemicals, chemicals produced as result of gas flaring, oil spillages and other activities. In Nigeria for instance, oil exploration and exploitation has been ongoing for several decades since the discovery of oil in commercial quantities. The activities of the sector have had disastrous effect on the country and have adversely affected people and the environment. Nigeria consist of diverse ecosystems of mangrove swamps, fresh water swamps, rain forest and is the largest wetland in Africa and among the ten most important wetland and marine ecosystems in the world, but as a result of oil pollution due to oil spillages, Nigeria is now characterized by contaminated streams and rivers, forest destruction and biodiversity loss etc. This affects the livelihood of the people who depend on the ecosystem services for survival leading to increased poverty, displacement of people and sometimes death as a result numerous diseases contacted there from. The oil industry in Nigeria has contributed immensely to the growth and development of the country which is a fact that cannot be disputed but unsustainable oil exploration activities has rendered the country with lots of pollution. The coming of NOSDRA is a welcome development to help in drastically reducing the menace caused by various tiers/categories of oil pollution arising from any stage of oil exploration, exploitation and/or transportation activities

2. Meanings of 'Environment' and 'Environmental Management'

The word 'environment' has been defined in various ways by several authors. Chambers Concise Dictionary, defined environment as "surroundings, external conditions influencing development or growth of people, animals or plants; living or working conditions." In the same vein, Queen's English Dictionary & Thesaurus of the English Language, defined environment as the external conditions and surroundings, especially those that affect the quality of life of plants, animals and human beings. Environment refers to the components of the Earth and includes: land, water and air, including all layers of the atmosphere; all organic and inorganic matter and living organism; the social, economic, recreational, cultural, spiritual, aesthetic conditions and factors that influence the life of human and communities; and a part or combination of these things referred to above and the

^{*} By B.E. EWULUM, PhD, Lecturer, Faculty of Law, Nnamdi Azikiwe University, Awka, Email: be.ewulum@unizik.edu.ng, 07038137153; and

^{*}Ejike OKAPHOR, LLB, LLM, Lecturer, Faculty of Law, Nnamdi Azikiwe University, Awka. E mail: pushejyke@yahoo.com;

^{*}Nnedimma Ezenwa-Ohaeto OKOLI Esq., LL.M, LL. B, B.L, ChMC (Associate), School of Post Graduate Studies, University of Benin, ezenwa ohaeton@gmail.com,

¹ Catherine Schwarz et al (ed), Chambers Concise Dictionary', 1999 Chambers Harrap Publishers Ltd, Edinburgh, at pg. 334.

² Geddes & Grosset 2002, New Lanark, ML II 9DJ, pg. 111.

interrelationships between two or more of them.³ The NESREA Act, in its interpretation section⁴ defines environment to include water, air, land and all the plants and human beings or animals living therein and the interrelationships which exist among these or any of them. From the above definitions, we can see that what is lacking or absent in one definition, may likely be available in another.

Environmental Management is concerned with the description and monitoring of environmental changes with predicting future changes and with attempts to maximize human benefit and minimize environmental degradation due to human activities. Environmental Management which is concerned with the management for environment represents the organizational structure, responsibilities, sequences, processes and preconditions for the implementation of an environmental corporate policy. Given the place of Environmental Management in ensuring a sustainable environment, it is trite to identify the basic functions of good environmental management which include: good setting, information management, support of decision making, organizing and planning of environmental management, environmental management programs, implementation and control, communication, internal and external auditing and so on Furthermore the Safety dictionary defined Environmental Management as consisting of organizing different environmental initiatives aimed at addressing various ecological issues that are affecting the world. Environmental Management deals with trying to prevent ecological disaster as well as aiding in environmental crises and trying to find appropriate solutions. It looks at marine and atmospheric conditions such as global warming, marine-life preservation and deforestation.

3. Legal Framework on Environmental Protection and Management prior to NOSDRA

Environmental issues were not in the front burner of national debate before 1988.¹⁰ When the toxic waste in the Nigerian port town of Koko occurred in June 1988, a public outcry and concern about the sustainability of the Nigerian environment became an issue of national discourse. The government of the federation responded by enacting

- 1. The Harmful Waste (Special Criminal Provision etc) Act 1988.
- 2. The Federal Environmental Protection Act (FEPA) 1988 (now repealed), and the
- 3. Environmental Impact Assessment Act 1988.

The period before this time has become popularly referred to as the "Pre Environmental Era". 11

The above legislations were however not specifically targeted at oil and gas pollution but at general environmental protection. Furthermore, none of the legislations contained a clear cut provision on what should be done in the event of occurrence of oil pollution. It is noteworthy however that legislation in the Nigerian oil and gas sector dates back to the colonial period with the Oil Minerals Ordinance of 1916. This was followed by the Oil Pipeline Act of 1956. In 1968, the Oil in Navigable Waters Act was promulgated because of the need to conform to international efforts in the area required by the International Convention for the Prevention of Pollution of the Sea by oil of 1954 as amended in 1962. In 1967 however Petroleum Regulations were made pursuant to the Petroleum Act 1969. Other relevant regulations made pursuant to the Petroleum Act include the Petroleum (Drilling and Production) Regulations in 1969, the Petroleum (Drilling and Refining) Regulations of 1973, and the Petroleum (Refining) Regulations in 1974. The Oil in Navigable Waters Regulation was also made in 1968 pursuant to the Oil in Navigable Waters Act. The Associated Gas Re–injection Act was enacted in 1979. The Oil and Gas Pipeline Regulations were also made in 1995 pursuant to the Oil Pipeline Act. 12

The above statutes enumerated above showed little or no concern for the negative impact of oil prospecting, production, refining and marketing on the Nigerian man and his environment. The Associated Gas Re-injection Act merely placed an illusory ban on gas flaring without the permission of the Minister. The statutes did not also provide any institutional framework for the enforcement of pollution prevention and control. The administrative

³ M.S. Aibor & J.O. Olorunba, 'A Technical Handbook of Environmental Health in the 21st Century', 2006. His Mercy Publishers, Akure, Nigeria, at pg. 357.

⁴ Section 37. National Environmental Standards and Regulations Enforcement Agency (Establishment) Act CAP N164, LFN 2010.

 $^{^{5}\} https://researchleap.com/introduction-concept-environmental-management-indian-context/\ accessed\ on\ the\ 25^{th}\ of\ February,\ 2020$

⁶ Ibid

 $^{^7\} https://www.safeopedia.com/definition/693/environmental-management\ accessed\ on\ 20th\ of\ February,\ 2020$

⁸ Ibid

⁹ Ibid

¹⁰ A.G. Eze & T.C. Eze, 'A Survey of the Legal Framework for the Control of Oil and Gas Pollution from some Selected Countries', (2014), *Journal of Law, Policy & Globalization*, Vol. 31. Pg. 2.

¹¹ A.G. Eze & T.C. Eze, 'A Survey of the Legal Framework for the Control of Oil and Gas Pollution from some Selected Countries', (2014), Journal of Law, Policy & Globalization, Vol. 31. Pg. 2.

¹² Ibid.

framework within the Ministry of Petroleum Resources and later the NNPC were inadequate and inappropriate for this function. An attempt was however made in 2006 to establish an institutional framework for the control of oil spill pollution through the enactment of the National Oil Spills Detection and Response Agency Act (NOSDRA).¹³ The 2006 Act narrowed its focus to the prevention of oil and gas pollution arising from oil spillages. The other aspects of oil and gas pollution such as effluent discharge from petroleum refining activities and gas flaring was removed from the ambit of the agency.

4. General Overview of NOSDRA

NOSDRA was established by the National Assembly of the Federal Republic of Nigeria Act No. 15 of 2006 as a deliberate and articulate response by the Federal Government to the persistent environmental degradation and devastation of the coastal ecosystem especially in the oil producing areas of the Niger Delta region. 14 It was hitherto established with responsibility for preparedness, detection, and response to oil spillages in Nigeria. It was established as an institutional framework to co-ordinate the implementation of the National Oil Spill Contingency Plan (NOSCP) for Nigeria in accordance with the International Convention on Oil Pollution Preparedness. Response and Cooperation (OPRC 90) to which Nigeria is a signatory. Since its establishment, the Agency has been intensely occupied with ensuring compliance with environment legislation in the Nigerian Petroleum Sector.¹⁵ It is a specialized and principal legislation on environmental protection in the oil and gas sector in Nigeria. It established the National Oil Spill Detection and Response Agency with responsibility for preparedness, detection and response to all oil spillages in Nigeria. 16 It also established the advisory, monitoring, evaluating, mediating and coordinating arm of NOSDRA known as the National Control and Response Centre (NCRC). 17 The Constitution of the Governing Board of the Agency¹⁸ and the operational *modus* of the Agency in the event of major or disastrous oil spill takes into account the multi-sectoral demand of environmental protection in the oil and gas sector. According to 'Global Best Practice' and in order to adequately protect the environment, all oil spills must be reported to the industry regulator. 19 In Nigeria, the Department of Petroleum Resources (DPR) is the oil industry regulator within the Ministry of Petroleum and NOSDRA is the emergency responder and coordinator within the Ministry of Environment. NOSDRA is generally perceived better able to regulate oil spill response than the DPR; its priority is the protection of the environment, over the maintenance of oil revenues.²⁰

Tiers of Oil Spill

In Nigeria, response to oil spill is based on a tiered system.²¹ The National Oil Spill Contingency Plan (NOSCP) consists of 3 tiers of implementation:

Tier One

Operational type spills, less than or equal to 7 metric tonnes (50 barrels), that may occur at or near a company's own facility, as a consequence of its own activities. An individual company would typically provide resources to respond to this size of spill.

Tier Two

A larger spill, greater than 7 metric tonnes (50 barrels) but less than 700 metric tonnes (5000 barrels), in the vicinity of a company's facility where resources from another company, industry and possible government response Agencies in the area can be called in, on a mutual aid basis. The company will participate in local cooperatives such as the Clean Nigeria Associates (CNA) where each member pools its Tier 1 resources and has access to any equipment which have been jointly procured for the co-operative.

Tier Three

The large spill, greater than 700 metric tonnes (5,000 barrels), where substantial further resources will be required and support from a National (Tier 3) or International Co-operative Stockpile, like the Oil Spill Response Limited

¹⁴ https://nosdra.gov.ng/accessed on the 15th of February, 2020

¹⁶ Section 1 NOSDRA.

¹³ Ibid.

¹⁵ Ibid

¹⁷ Section 18 *ibid*.

¹⁸ Section 2 (1&2) *ibid*.

¹⁹ A Report Presented by Stakeholder Democracy Network (SDN), 'Memorandum on 'best practice' in environment protection in the oil industry in relation to oil spills'. February, 2013.

²⁰ A Report Presented by Stakeholder Democracy Network (SDN), Improving oil spill response in Nigeria – Comparative analysis of the Forms, Data and related processes of the JIV.www.stakeholderdemocracy.org. Accessed on 16 September, 2019

²¹ Section 9 of National Oil Spill Contingency Plan (NOSCP).

(OSRL), may be necessary. Such operation is subject to government control and direction. It is important to recognize that a spill which receives a Tier 3 response may be close to, or remote from company facilities.²²

The National Oil Spill Contingency Plan²³ is the objective of the Agency to co-ordinate and implement as follows:

- a. Safe, timely, effective and appropriate response to major or disastrous oil pollution;
- b. Identify high-risk areas as well as priority areas for protection and clean-up;
- c. Establish the mechanism to monitor and assist or where expedient direct the response, including the capability to mobilizing the necessary resources to save lives, protect threatened environment, and clean up to the best practical extent, the impacted site;
- Maximize the effective use of the available facilities and resources of corporate bodies, their international connections and oil spill co-operatives, that is Clean Nigeria Associates in implementing appropriate spill response;
- Ensure funding and appropriate and sufficient pre-positioned pollution combating equipment and materials, as well as functional communication network system required for effective response to major
- Provide a programme of activation, training and drill exercise to ensure readiness to oil pollution preparedness and response and the management and operational personnel;
- Co-operate and provide advisory services, technical support and equipment for purposes of responding to major oil pollution incident in the West African sub-region upon request by any neighbouring country, particularly where a part of the Nigerian territory may be threatened;
- Provide support for Research and Development (R&D) in the local development of methods, materials and equipment for oil spill detection and response;
- Cooperate with the International Maritime Organization and other national, regional and international organizations in the promotion and exchange of results of research and development programme relating to the enhancement of the State of the art of the oil pollution preparedness and response, including technologies, techniques for surveillance, containment, recovery, disposal and clean up to the best practical extent;
- Establish agreements with neighbouring countries regarding the rapid movement of equipment, personnel and supplies into and out of the countries for emergency oil spill response activities;
- k. Determine and preposition vital combat equipment at most strategic areas for rapid response;
- establish procedures by which the Nigerian Customs Service and the Nigerian Immigration Services shall ensure rapid importation of extra support response equipment and personnel;
- m. Develop and implement an appropriate audit system for the entire plan.
- Carry out such other activities as are necessary or expedient for the full discharge of its functions and the execution of the Plan under this Act.

According to the plan, every effort shall be made to recover the spilled oil as much as possible; and it shall be the responsibility of the Federal Ministry of Environment to ensure the appropriate treatment and safe disposal of waste oil and oily debris in an environmentally sound manner, and all compensation claims shall be referred to them. The cost and funding as provided in the plan shall be recovered from the spiller in accordance with the Polluter Pays Principle.²⁴ Comparatively, in the United States, the funding and cost is far better, more defined and very pragmatic. The Oil Pollution of 1990 created a 1 billion dollar supplemental compensation fund for oil spills and gave details for procedures for obtaining access to it. The burden of paying the cleanup costs and damages in the first instance is on the owner or operator of the vessel or facility that is the source of the spill, if the costs and damages exceed the limit of liability for the vessel, the 1 billion dollar oil spill liability trust fund pays the balance, effectively placing the secondary responsibility to pay for oil spill clean-up and damages on the receivers of crude oil or petroleum products. The fund is also available to pay for the clean up when the spiller has a valid defense or cannot be identified.²⁵ Such funding system ought to be replicated and emulated by Nigeria.

The NOSDRA Act went on to provide that; the agency shall act as the lead agency for all matters relating to oil spill response management and liaise with the other agencies for the implementation of the Plan, as contained in the Second Schedule.²⁶ The Ministries and Agencies which NOSDRA shall co-opt and collaborate with in the event of a major oil spill apart from her parent Ministry, the Federal Ministry of Environment are:

²² A.A. Kadafa, M.P. Zakaria & F. Othman, 'Oil Spillage and Pollution in Nigeria: Organizational Management and Institutional Framework', (2012), Vol. 2, No. 4, p. 25.

²³ Section 5 (a-n) of the NOSDRA

²⁴ The National Oil Spill Contingency Plan, 2000, par. 16 at pg. 103.

²⁵ Austin P. Oilney, et al. Op.cit at p. 359.

²⁶ The Second Schedule laid down the functions or duties of every stakeholder, Ministry or Agency (Public or Private) that will be co-opted and involved in the event of a major or disastrous oil spill.

- Nigerian Institute of Oceanography and Marine Research whose duty is to monitor the extent of impact, effectiveness in clean up exercise, monitor recovery rates of impacted areas and provide technical and scientific support;
- b. the Federal Ministry of Works is in charge of mobilizing human and equipment resources and fire services for evacuation, construct shelters for victims; provide access roads to the scene of oil spill;
- The Federal Ministry of Health is burdened with the responsibility of mobilizing medical personnel, monitor the effect of oil spill on community health, mobilize requirements in hospitals to respond to the emergency;
- d. The Federal Ministry of Transport provides barges and storage for recovered oil, navigate all nearby port facilities and provide advice on the navigability of shipping lanes, creeks and other inland waterways;
- e. The Federal Ministry of Information provides up to date information about an oil spill;
- f. The Federal Ministry of Water Resources, Agriculture and Rural Development is saddled with the responsibility of providing bore holes, food relief materials and agricultural implements to resettle fishermen affected:
- g. The Ministry of Communications assist with international contacts, and in setting up communication centers around the scene of oil spillage;
- h. The Federal Ministry of Aviation provide data on the prevailing weather condition and make predictions on weather changes;
- i. The National Emergency Management Agency supplies relief materials to needy persons in the event of major Tier 2 or Tier 3 oil spill;
- j. The Oil Producers Trade Section (OPTS) of the Lagos Chambers of Commerce provides the operational maps of the areas affected or likely to be affected and assist in securing the services of international organizations in response efforts;
- k. The Nigerian Police Force keeps order, protect property and equipment at the scene, protect workers from angry mob and assist with communication support;
- 1. Non-Governmental Organizations (NGOs), Industrial Groups and Academic Organizations conduct scientific researches and assist in their respective ways to ensure effective response actions;
- m. The Ministry of Science and Technology initiates and sustain research and development, disseminate the results of such research and enter into collaborative R&D with International Organizations that are involved;
- The Ministry of Defense evacuates victims, provides additional security to patrol the sea and coastline, render assistance to vessels in distress.²⁷

From the functions and collaborations given to these ministries and agencies by the NOSDRA Act, it would seem like an oil spill would almost always have little negative impact on the environment, however, the NOSDRA Act did not stipulate how NOSDRA would elicit the cooperation and action of these Ministries and Agencies. No penalty for non-cooperation was provided by NOSDRA either.²⁸

Functions of NOSDRA

The functions of NOSDRA are partially imbedded in its objectives as espoused above; the Act went further to specify the functions of NOSDRA in section 6 as follows:

- a. The Agency shall be responsible for surveillance and ensure compliance with all existing environmental legislation and detection of oil spills in the petroleum sector;
- b. Receive reports of oil spillages and co-ordinate oil spill response activities throughout Nigeria;
- c. Co-ordinate the implementation of the Plan as may be formulated, from time to time, by the Federal Government;
- d. Co-ordinate the implementation of the Plan for the removal of hazardous substance as may be issued by the Federal Government;
- e. Perform such other functions as may be required to achieve the aims and objectives of the Agency under this Act or any Plan as may be formulated by the Federal Government pursuant to this Act.

Penalties in NOSDRA Act

The Act provides that an oil spiller is by this Act to report an oil spill to the Agency in writing not later than 24 hours after the occurrence of an oil spill, in default of which the failure to report shall attract a penalty in the sum of five hundred thousand naira for each day of failure to report the occurrence. The failure to clean up the impacted

²⁷ Second Schedule to the NOSDRA Act

²⁸ K.K. Ezeibe, The Legislative and Institutional Framework of Environmental Protection in the Oil and Gas Sector in Nigeria – A Review, (2001), Vol. 2.

site shall also attract a fine of One Million Naira.²⁹ The foregoing is the only penalty provided in the NOSDRA Act with regard to environmental pollution in relation to oil spillage. From the wordings of the Act, it appears this penalty is not meant to include the individual spiller, it does not also provide that such an individual will equally report, clean up and remediate the impacted site if apprehended. The Act did not provide a scenario whereby a criminal perforates an oil pipeline causing an oil spill and escapes, the person to be held responsible. 30 In as much as the individual criminal will be punished if apprehended, his punishment would be different and may not include remedying the site of spillage but to put him to death or behind bars. However, the oil pipeline owner would be responsible for any such spillage and would be accountable for the spill where the statutory exceptions are excluded, that is, where the pollution is due to the fault of the person suffering the damage or an account of a malicious act of a third person³¹. Hence, in Shell Petroleum Development Company (Nig) Ltd. v. HRH Chief GB Tiebo VII & Ors, 32 the plaintiffs sued Shell for negligence under the rule in Rylands v. Fletcher 33 for oil spillage. The learned trial judge held that negligence was established against the defendant under the Rule in Rylands v. Fletcher and entered judgment in favour of the Plaintiff. The rule in Rylands v. Fletcher applies where there was no third party act which caused the escape of the oil. In the United States of America, the Oil Pollution Act of 1990 also imposes strict liability for a comprehensive list of damages from an oil spill into the water from vessels and facilities, including natural resources damages. This makes it easier for claimants against oil spillers or polluters. However, NOSDRA is for oil spill disaster control, clean-up of oil spillages and removal of hazardous substances in Nigeria.

5. Incidences of Oil Spillages in Nigeria

Oil spillage is categorized into four groups: minor, medium, major and disaster. Minor spill takes place when the oil discharge is less than 25 barrels in inland waters or less than 250 barrels on land, offshore or coastal waters that does not pose a threat to the public health or welfare. In the case of the medium, the spill must be 250 barrels or less in the inland water or 250 to 2,500 barrels on land, offshore and coastal water while for the major spill, the discharge to the inland waters is in excess of 250 barrels on land, offshore or coastal waters. The disaster refers to any uncontrolled well blowout, pipeline rupture or storage tank failure of which poses an imminent threat to the public health or welfare.³⁴ Oil spill incidents have occurred in various parts and at different times along our coast. Some major spills in the coastal zone are:

- a. Escravos spill in 1978 of about 300,000 barrels, SPDC's Forcados Terminal tank failure in 1978 of about 580,000 barrels and Texaco Funiwa-5 blowout in 1980 of about 400,000 barrels.
- b. Abudu pipe line in 1982 of about 18,818 barrels.
- c. The Jesse Fire Incident which claimed about a thousand lives and the Idoho Oil Spill of January 1998, of about 40,000 barrels.
- d. The most publicized of all oil spills in Nigeria occurred on January 17, 1980 when a total of 37.0 million litres of crude oil got spilled into the environment. This spill occurred as a result of a blow out at Funiwa 5 offshore station. Nigeria's largest spill was an offshore well-blow out in January 1980 when an estimated 200,000 barrels of oil (8.4million US gallons) spilled into the Atlantic Ocean from an oil industry facility and that damaged 340 hectares of mangrove.³⁵

According to the Department of Petroleum Resources (DPR), between 1976 and 1996, a total of 4,647 incidents resulted in the spill of approximately 2,369,470 barrels of oil into the environment. Of this 8quantity, an estimated 1,820,410.5 barrels (77%) were lost to the environment. A total of 549,060 barrels of oil representing 23.17% of the total oil spilt into the environment was recovered. The heaviest recorded spill so far occurred in 1979 and 1980 with a net volume of 694,117.13 barrels and 600,511.02 barrels respectively. Available records for the period of 1976 to 1996 indicate that approximately 6%, 25%, and 69% respectively, of total oil spilled in the Niger Delta area, were in land, swamp and offshore environments. Also, between 1997 and 2001, Nigeria recorded a total number of 2,097 oil spill incidents. Thousands of barrels of oil have been spilt into the environment through the oil pipelines and tanks in the country. This spillage is as a result of our lack of regular maintenance of the pipelines and storage tanks. Some of these facilities have been in use for decades without replacement. About 40,000 barrels

²⁹ Section 6 (2) &(3) NOSDRA Act, Cap. N157, LFN, 2006.

³⁰ K.K. Ezeibe, The Legislative and Institutional Framework of Environmental Protection in the Oil and Gas Sector in Nigeria – A Review, (2001), Vol. 2.

³¹ Ogiale v. Shell BP Nig. Ltd (1997) 1 NWLR Pt. 48 at 148.

³² (1996) 4 NWLR 659.

³³ (1866) LR 1 EX, 265.

³⁴ D.S. Ntukekpo, (1996) 'Spillage: Bane of Petroleum, Ultimate Water Technology & Environment.' AEHS Magazine – October 2001

³⁵ P.C. Nwilo & O.T. Badejo, 'Impacts and Management of Oil Spill Pollution along the Nigerian Coastal Areas', (2005). ³⁶ Ibid.

of oil spilled into the environment through the offshore pipeline in Idoho. Sabotage is another major cause of oil spillage in the country.

Some of the citizens of this country in collaboration with people from other countries engage in oil bunkering. They damage and destroy oil pipelines in their effort to steal oil from them. SPDC claimed in 1996 that sabotage accounted for more than 60 percent of all oil spilled at its facilities in Nigeria, stating that the percentage has increased over the years both because the number of sabotage incidents have increased and because spills due to corrosion have decreased with programs to replace oil pipelines.³⁷ Nigeria lost about N7.7 billion in 2002 as a result of vandalization of pipelines carrying petroleum products. The amount, according to NNPC, represents the estimated value of the products lost in the process. Illegal fuel siphoning as a result of the thriving black market for fuel products has increased the number of oil pipeline explosions in recent years. In July 2000, a pipeline explosion outside the city of Warri caused the death of 250 people. An explosion in Lagos in December 2000 killed at least 60 people. The NNPC reported 800 cases of pipeline vandalization from January through October 2000. In January 2001, Nigeria lost about \$4 billion in oil revenues in 2000 due to the activities of vandals on our oil installations. The government estimates that as much as 300,000 bbl/d of Nigerian crude is illegally bunkered (freighted) out of the country.³⁸ In Nigeria, fifty percent (50%) of oil spills is due to corrosion, twenty-eight percent (28%) to sabotage and twenty-one percent (21%) to oil production operations. One percent (1%) of oil spills is due to engineering drills, inability to effectively control oil wells, failure of machines, and inadequate care in loading and unloading oil vessel.³⁹

6. Effects of Oil Spillage on the Environment

When there is an oil spillage in water, it spreads immediately while the gaseous components evaporate. Some get dissolved in water and even oxidize, and yet some undergo bacterial changes and eventually sink to the bottom by gravitational action. The water is then contaminated with a gross effect upon the terrestrial life. As the evaporation of the volatile lower molecular weight components affect aerial life, so the dissolution of the less volatile components with the resulting emulsified water affects aquatic life. 40 The harmful effects of oil spillages on the environment are numerous; it kills plants and animals in the estuarine zone. Oil settles on beaches and kills organisms that live there; it also settles on ocean floor and kills benthic (bottom-dwelling) organisms such as crabs. Oil poisons algae, disrupts major food chains and decreases the yield of edible crustaceans. It also coats birds, impairing their flight or reducing the insulative property of their feathers, thus making the birds more vulnerable to cold. Oil endangers fish hatcheries in coastal waters and as well contaminates the flesh of commercially valuable fish. 41 Oil spills in the Niger Delta have been a regular occurrence, and the resultant degradation of the surrounding environment has caused significant tension between the people living in the region and the multinational oil companies operating in the region. It is only in the past decade that environmental groups, the Federal Government, and the foreign oil companies operating in the Niger Delta began to take steps to mitigate the impacts. Large areas of the mangrove ecosystem have also been destroyed. The mangrove forest was in the past a major source of wood for the indigenous people. The Idoho oil spill traveled all the way from Akwa-Ibom state to Lagos state dispersing oil through the coastal states, up to the Lagos coast. This culminated in the presence of sheen of oil on the coastal areas of Cross river state, Akwa-Ibom state, Rivers state, Bayelsa state, Delta state, Ondo state and Lagos state. In many villages near oil installations, even when there has been no recent spill, an oily sheen can be seen on the water, which is usually the same water that the people living there use for drinking and washing. In April 1997, samples taken from water used for drinking and washing by local villagers were analyzed in the U.S. A sample from Luawii, in Ogoni, where there had been no oil production for four years, had 18 ppm of hydrocarbons in the water, 360 times the level allowed in drinking water in the European Union (E.U.). A sample from Ukpeleide, Ikwerre, contained 34 ppm, 680 times the E.U. standard. On several occasions, people interviewed by Human Rights Watch said that spills in their area had made people who drank the water, especially children to be sick. 42 Ken Saro Wiwa and other environmentalists were executed in 1995 by the then Nigerian military government when they called for a halt in Shell's activities in Ogoni land and for them to pay compensation and clean the environment. Both the Federal government and the courts are sympathetic to the oil and gas companies and have not risen to the occasion of effective enforcement and implementation of existing environmental laws and policies. Those men were executed in 1995 for Shell to continue their unhindered

³⁷ *Ibid*.

 $^{^{38}}$ Ibid.

³⁹ *Ibid*.

⁴⁰ Ibid

⁴¹ *Ibid*.

⁴² Ibid.

production and devastation of Ogoniland. The government forgot that the social and economic needs of Nigeria must be balanced with environmental needs and proper enactment and implementation of environmental laws. 43

7. Limitations to the Enforcement of the NOSDRA Act

By section 6 (2 & 3) of NOSDRA Act, the oil spiller is to report an oil spill to the Agency in writing not later than 24 hours after the occurrence of an oil spill, default of which attracts Five Hundred Thousand Naira (500,000.00) for each day of failure. The failure to clean up the site further attracts a fine of One Million Naira (1,000,000.00). In March 2018, the Court of Appeal upheld the ruling of the Federal High Court and decided that NOSDRA acted beyond its statutory powers when it imposed a fine of Ten Million Naira on Mobil Producing Nigeria Unlimited (ExxonMobil).⁴⁴ ExxonMobil had spilled oil on a site and when it became aware, carried out a clean-up exercise which was rated as satisfactory by NOSDRA. NOSDRA later instituted an action against ExxonMobil claiming Ten Million Naira for alleged infringement of NOSDRA Act. The court held that NOSDRA acted ultra vires (outside) its powers by imposing a fine and that it is only a court that can impose any fine and NOSDRA is not a iudicial authority and the NOSDRA Act did not also provide that NOSDRA can impose fines.⁴⁵ In Nigeria, administrative bodies can make findings of fact and impose sanctions within their regulatory power; this was illustrated by the US \$5.2 billion fine which was handed down to MTN Nigeria in 2015 by Nigeria Communications Commission (NCC) due to MTN's failure to disconnect the Subscribers Identification Modules (SIM) that were improperly registered. The power of CBN exercised in penalizing MTN is similar to NOSDRA's powers under the Act. The decision of the CA against NOSDRA could mean that a person who fails to report an oil spill can escape the liability simply because the Act did not expressly designate a particular authority to collect the fine or to ensure the payment of the fine. 46 Administrative Agencies are vital for the smooth operation of the modern State and restricting the powers of these agencies without cogent and compelling reason could have negative implication(s).

8. Conclusion

There is no doubt that environmental concerns are increasing especially in the oil and gas sector and machineries should be put in motion to curb the looming environmental hazards. This paper has, with the task before it examined the concept of Environment and Environmental Management, the functions and powers of NOSDRA especially the power to inflict fines. The legislations before NOSDRA was traced and attempts were made to establish areas with deficiencies in NOSDRA Act upon which recommendations were made. The paper concluded on the note that a better Nigeria is achievable if the recommendations stated hereunder are adhered to.

To ensure environmental sustainability, government should increase its budgetary allocations to the environmental sector of the economy and the funds invested in capacity building, trainings and acquisition of equipment. The penalty provided in the NOSDRA Act is only against the oil spiller, the only oil spiller in view is the corporate or oil producing company or tanker owner and not the individual who for e.g. perforates an oil pipeline and left it open thereby causing oil spillage. For sustainable development, Nigeria should equally join race for renewable energy because of the hazards attributed to oil & gas. Oil and gas does not last forever and Nigeria should not be caught unawares. Government should also ensure strict compliance to the environmental laws by oil companies operating in the country. Intensive publicity and sensitization campaign of all operators in the oil and gas sector, the public, stakeholders, and judicial officers on the hazards of the oil and gas sector is recommended. Just as is obtainable in USA, pollution in the oil and gas sector should be made a strict liability offence in Nigeria so that it will be easier for victims of oil pollution to recover damages and compel clean-up. The duty of clean-up and remediation should be made mandatory upon NOSDRA and compellable through action in court by citizens or community instead of vesting it on the polluter to report and clean up. Heavy fines could be imposed on NOSDRA for any failure to perform. National Plan for oil spill has been put in place to protect our environment, similar plans for gas and hazardous substances ought to be formulated too. NOSDRA Act should be reviewed to give NOSDRA powers to impose fines.

⁴³ I.V. Ibeawuchi, 'Environmental Impact Assessment of Oil & Gas Industry in Niger Delta, Nigeria: A Critical Environmental and Legal Framework Assessment'. LLM Thesis, Dalhousie university, Halifax, Nova Scotia. August 2016.

⁴⁴ NOSDRA v. Mobil Producing Nigeria Unlimited (2008) LPELR – 44210 (CA).

⁴⁵ Ibid.

⁴⁶ Alex, 'Case Review: NOSDRA v. ExxonMobil – Examining the Powers of Regulatory Agencies to Impose Penalties', (2019) @ pg. 2.