

Niger Delta Women Adaptive Measures against Oil Spillage: Interventions & Effectiveness

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Abstract

The study examined the plight of Niger Delta women living in oil-spills polluted environment. As survival strategies, these women adopted various approaches such as protest, community-based women organisations, appeals etc, to seek government interventions. The study was necessitated by the fact that despite many years of agitations against environmental degradation and its socio-economic impacts on the residents, no remarkable improvement has been seen in the living conditions of the Niger delta women who bear most of the brunt of the oil spillages, given their relationship with the environment. The aim of this study is to investigate the effectiveness of these interventions and coping strategies adopted by these women against the challenges of oil spillages. The Environmental Kuznets Curve theory (EKC) was adopted to describe the connection between economic activities and environmental depletion. Data was generated from primary and secondary sources. While oral interview was used to obtain primary data, secondary sources include documentaries, books and other online publications. Interviews were conducted on 12 women and 6 men from each part of the Niger Delta mostly affected, especially Ogoni in Rivers, Akwa Ibom and Delta states. Findings show that although protests, advocacies and interventions have taken place, these strategies have left little or no improvement in the living conditions of Niger Delta women. The study therefore concludes that governments, NGOs, Oil companies etc, need to be decisive in adopting more critical and rewarding interventions, to salvage lives in the oil-bearing communities. Among others, the study recommends as follows: Government should focus on service sector economy to reduce pressure on the environment; compensation should follow clearer legal guidelines, equitable compensation processes, and active community engagement to restore livelihood, also oil sabotage should be controlled by engaging perpetrators in meaningful economic activities; there should be functional legislation against criminal elements sabotaging interventions, Oil companies should prioritise compensations to women; and support them with skills acquisition, vocations, while community properly gets engaged for resilience etc.

Keywords: Effectiveness, adaptive measures, Niger Delta women, oil spillage, interventions

1.0 Introduction

The Niger Delta region is part of the present-day South-South geopolitical zone located in Southern part of Nigeria. The region is established as the Africa's

largest delta, existing within an approximate enclave of 70,000 square kilometers, and with about one-third of it made up of swamps, constituting the third largest world mangrove forests (Gabriel, 2004). The Niger Delta region is recognized as the largest producer of oil resources in Nigeria, with its several forms and levels of environmental issues associated with its operations such as water, land, air pollution, etc. A number of these issues have been attributed to human and exploration activities leading to destruction of biodiversity, flooding and erosion of coastal and river banks, oil spillage, gas flaring, as well as noise pollution. Other problems include land degradation and loss of soil fertility. The history of oil spills in Nigeria dates back to 1908 when Nigeria experienced the first oil spillage in Araromi, part of the present Ondo state (Tolulope, 2004, cited in Kadata, 2012). Since the discovery of oil in commercial quantity at Oloibiri, Bayelsa state in 1956, and exploration started in 1958, oil spillage has become an existential reality associated with oil exploration activities in the Niger delta region. In July 1979 the Forcados tank 6 Terminal in Delta state incidence spilled 570,000 barrels of oil into the Forcados estuary polluting the aquatic environment and surrounding swamp forest (Ukoli, 2005)

Thus, in the oil-abundant Niger Delta region of Southern Nigeria, there is a growing concern over the impact of crude oil spills on human health and the environment; Ogoniland being the epicenter of these disturbing occurrences; 261 human settlements covering nearly over 1,000sq km (385sq miles) (Ekpali; 2022). Ekpali (2022) further stated that between 1976 and 1991, more than two million barrels of oil polluted Ogoniland in 2,976 separate oil spills as Nigeria became one of the world's largest oil producers. Similarly, in 2020 and 2021 alone, Nigeria's National Oil Spill Detection and Response Agency (NOSDRA) documented 822 combined oil spills totaling 28,003 barrels of oil discharged into the environment. The most disturbing aspect is that the polluted environment is the centre of economic activities on which the Niger Delta women depend for livelihood through farming, fishing, gathering of sea food, lumbering and gathering firewood for domestic and commercial use. Thus, these women become alienated from their environment as their means of survival has been separated from them, subjecting the helpless women to perpetual poverty. Therefore, the objective of this study is to investigate the strategies adopted by Niger Delta Women in coping with the challenges of environmental degradation caused by oil spillages; and the effectiveness of these strategies and interventions for policy recommendations.

2.0 Literature Review

Niger Delta Women

In a report on the gender dimension of Niger Delta struggle for resources, Okon (2002) described Niger Delta women as predominantly peasants, fishers and farmers who sustain themselves and families from their farming produce and fishing ponds. She noted that these women have been the breadwinners of their respective families as confirmed by most men in the Delta. It is sad to gather from the report that women have been the major victims of the exploitative activities of the Nigerian State and the oil multinational companies. Their vulnerability emanating from the loss incurred through cash crop exploitation, loss of arable farmland and water resources. Okon (2002) decried the plight of women who suffer psychological, emotional and physical torture arising from the repressive policies of the government and the oil companies; as well as military operations. In addition, they suffer loss of loved ones during military operations employed by the federal government to stop any resistance against exploitation and environmental degradation.

Gabriel (2004) noted that the economic activities of Niger Delta women are largely determined by their ecology. Women in the Niger Delta engage themselves in mainly fishing and gathering of seafoods, fuel wood for domestic and small-scale food processing as well as income generation. gin distillation from raffia palm trees (*Raphia vinifera*), collection of African mango seeds, Ogbono, snail, mat weaving etc.

Adaptive Measures

Law Insider (2024) refers to adaptive measures as any adjustment, whether passive, reactive or anticipatory that may be employed to ameliorate the anticipated adverse effect related to flood events. The study provided the following examples: installation of water conservation features and appliances; and planting of xerophytic landscaping.

With respect to oil spillage, the International Enviroguard (2023) suggested the following mitigating measures in an event of oil spillage: i) identify the source of the leakage and stop it if possible; ii) use of proper personal protective equipment (PPE), iii) isolate the affected area, iv) avoid any oil from getting into storm or sewer drains, v) clean up the spills using a combination of spill kits, sorbet pads, granular oil sorbet, and other tools; remove any oil - and any tools used to clean

up through appropriate waste vendor or environmental harmful waste containers and comply with any federal, state, or other local laws regarding reporting of oil spill. These requirements are however dependent on the quantity of oil spilled and its impact on the immediate environment.

Oil Spillage

Oil spillage refers to outflow of petroleum onto the surface of a large quantity of water. It can also refer to the release of oil into the environment, either leaked or discharged from a ship, lorry, truck etc. or accidental release of oil into a body of water from offshore drilling rig, or underwater pipeline, often constituting a hazard to marine life and the environment. Oceanic oil spills resulting from increased exploration and production of petroleum products in different continents; unintended or careless release of used gasoline solvents and crankcase lubricants by industries and individuals, as well as natural seepage from the ocean floor, add oil to the world's waterways at the rate of 3.5 million to 6 million metric tons a year (Collins dictionary, Cambridge dictionary & Encyclopaedia Britannica, 2020); cause an unprecedented environmental degradation. Periodic incidents of oil spills and related activities in Ogoniland, from 1958 as recorded by Aljazeera news (2022) are presented below:

- i. **1970** - The first documented oil spill occurred in the Boobanabe at Shell's Bomu oil well
- ii. **April 26- May 7 2001** - occurred in Yorla community, igniting fire that consumed crops and medical herbs of commercial value.
- iii. **February 2003** - explosion occurred at Shell's moribund Yorla oil field, causing another major oil leakage.
- iv. **August 28, 2008** -A huge oil spillage happened in Bodo community attributed to a faulty Trans-Niger Pipeline, lasting for about one month, estimated to about 4,000 barrels
- v. **April 12, 2009** -a spill ignited fire occurred at the Bomu manifold where several Shell pipelines intersected at Kegbara Dere, Ogoniland, causing oil to flow into the swamp. The fire lasted for 36 hours.
- vi. **August 2011** - Shell owned up for the twofold bursting of the Bodo-Bonny Trans-Niger Pipeline that triggered two huge oil spillages in Bodo. The Trans-Niger transmits up to 180,000 barrels of oil a day through the community.
- vii. **May 7, 2012** -A spill occurred in Kegbara-Dere, around 200mtrs from Bomu manifold.

- viii. **June 2013-** A blast occurred at a Shell pipeline, dropping 6,000 barrels of crude into the streams and rivers in Bodo. The indigenes of Ogoni swore not to permit oil exploration to take place again in their communities until the challenges of environmental pollution have been addressed.
- ix. **November 3, 2015 – After** forty-five years of oil spill at Bomu, researchers discovered darkened soil and films of oil on the water even when Shell claimed to have restored the site two times in 1975 and 2012.
- x. **June 2, 2016 –** Former Vice president of Nigeria - Yemi Osinbajo inaugurated a clean-up exercise in Ogoni land, together with the UN Deputy Secretary-General Amina Mohammed, the then Minister for environment.
- xi. **March 25, 2017 -**Shell accepts to remediate Bodo, which was polluted from two spills in 2008.
- xii. **April 18, 2019-** The Sun Newspaper (2019) recorded loss of two lives from oil spills in the Kegbara-Dere community.

Causes of Oil Spillage

Oil spillage can occur as a result of leakage from ships, well, pipeline and other haulers of oil, it can also be caused by accidents on tankers, refineries and drilling rigs. Poor storage facilities, massive transportation, inadequate regulation, human mistake and carelessness, breakdown of equipment, natural disaster, illegal bunkers etc (Vedanta; 2024). The United Nations Environmental Program also attributed most of the major oil spills to broken pipelines, sunk or grounded tanker, wrong drilling operations, vandalism from oil thieves and lack of pipeline maintenance (UNEP, 2021)

Adebayo (2023) has also reported what he described as ‘a new oil spill at a Shell facility’ in Nigeria. The National Oil Spill Detection and Response Agency (NOSDRA) told the Associated Press that the spill came from the Trans-Niger Pipeline operated by Shell that crosses through communities in the Eleme area of Ogoniland, a region. It has been described as “one of the worse in the last 16 years in Ogoniland’. The spill has contaminated farmland and a river, upsetting livelihoods in the fishing and farming communities in part of the Niger Delta, which has long been depleted by the impacts of environmental degradation caused by the activities of oil industry.

Environmental support for Women’s Economic Activities

The ecology of the Niger Delta region is characterized by coastal ridge walls, mangrove and fresh water swamp forest and lowland rain forest. These features

support habitation for different types of plants, fish, reptiles, mammals and minerals. The Niger Delta rural women largely depend on this environment for their livelihood especially in fishing and harvesting of seafood such as shrimps, periwinkles, crab, fish, snail, shell fish etc.,. The mangrove forests around the creeks are equally steady sources of wood fuel for domestic and small-scale food processing, for rural income. In the tropical rain forest, women's major economic activities are farming, collection of snails and other nontimber products, weaving, fuel wood gathering, tapping of rubber trees, etc. Fishing in this zone is practiced on a very low scale, mainly for subsistence (Gabriel; 2004). Thus, any form of environmental problem invariably speaks disaster in the livelihood of the Niger Delta women.

Impacts of Oil Spill – Environmental Degradation

Damage to aquatic life

When spill occurs, a moderate amount of oil sinks into the ocean and damages the health of the aquatic life, and contaminates the natural habitat of the ocean, and thus affects the entire food chain of the ecosystem, causing severe damage to birds and sea animals. In Bayelsa state, Oluwafemi (2013) encountered one Madam Grace James, a fisher woman from Bassambri community, Nembe LGA Bayelsa state. Grace lamented how the recurring oil spills around the Nembe waters have resulted in the migration of aquatic animals, especially fish. “Because of the frequent oil spill, I no longer have the keen desire to go fishing again, despite fishing for many years,” she said; but I don't have another alternative”. She also lamented that “when the oil companies brought relief materials, we who engage in fishing as a business, we don't get such materials”.

Human Health

Speaking on the impact of oil spillage on human health, Ordinioha and Brisibe (2013) noted that oil spills contaminate ocean animals, consumption of these contaminated animals poses severe health challenge to humans; inhaling chemicals from spilled sites can also cause bronchia problems on humans. “Children in the Niger Delta grow up drinking, cooking and washing with polluted water. They eat contaminated fish and vegetables. They suffer from breathing problems. A 2017 study showed that babies in Nigeria were twice as likely to die in the first month of life if their mothers were living near an oil spill before becoming pregnant” (Friends of the earth int;l, 2019)

Similarly, Anthony (2023) has reported the case of oil spillage suffered by the indigenes of Ibeno in Akwa Ibom state who lamented water contaminated by oil spills, making it difficult for them to have safe drinking water. Consequently, those who couldn't afford a sachet of pure water at N100 drink the oily water from stream. Anthony re-echoed how a woman known as Rhoda equally recounted how she lost her pregnancy two years ago when she was working in Ibeno as a result of inhaling polluted air as confirmed by her doctor.

Economic Impact

Oil spill leaves considerable amount of economic and ecological impact on the environment. One of the economic activities most impacted by oil spills is fishing. Commercial fishing is suspended following major oil spills. Among other reasons, this is done to avoid damaging fishing vessels and equipment, and to prevent the catch and sale of likely contaminated fish and other sea food. Proceeds from halted farming due to degraded land also leave an economic vacuum among the rural women who depend on agriculture for their livelihood.

Land Degradation

Oil spillage results in massive degradation of land, affecting soil fertility as well, limits access to agricultural land. This condition is worsened by the traditional practices that inhibit women from land ownership and inheritance in Africa, despite the fact that the bulk of agricultural activities are carried out by women. Thus, land becomes very critical for the economic prowess of the Niger Delta women. The little land they could access through their husbands and male relatives and the crops planted therein, become contaminated by oil spills, leaving a huge gap between livelihood and the environmental conditions in the Niger delta region of Nigeria (Gabriel; 2004).

Damage to Forest plants

Oil spills destroy forest and affect the production of timber and other nontimber forest resources such as nuts, bamboo, grapes, apples, mushroom, medicinal plants, resins, honey, as well as aquatic animals, on which the rural women also depend on for their daily income and food (FAO; 2000).

Preventing Oil Spillage

The International Enviroguard (2023) noted that oil spills mostly occur in facilities where there is either above ground or underground storage tanks. She identified some preventive strategies as follows: regular inspection of any vessels,

tanks, or transfer operations; outlining specific rules and regulations for oil storage, transfer, and containment; formulating a detailed prevention and oil spill response plan; regular training and education for workers; possessing the right cleanup equipment on hand in the event of a spill etc

The figures below show some oil spill sites in the Niger Delta Region.

Fig. 1: Showing oil swirls in the river water, Bodo city



Source: <https://www.foei.org/a-journey-through-the-oil-spills-of-ogoniland/> 2019

Fig 2: showing wooden fishing boats sinking into the oily mud, Bodo City (2019)



Source: <https://www.foei.org/a-journey-through-the-oil-spills-of-ogoniland/> 2019

Fig.3: showing Goi community struggling to fish (where once there was plenty)



Source: <https://www.foei.org/a-journey-through-the-oil-spills-of-ogoniland/> (2019)

Fig. 4: ExxonMobil record another oil spill in Ibeno communities in Akwa Ibom state



Source: <https://www.pmnewsnigeria.com/> 2016

Fig. 5: Oil spill in Itshekiri community in Delta State



Source: vanguardngr.com.../

Fig. 6: Mangrove trees in Nembe community drying up due to oil spills



Source: thecable.ng/inside

Fig. 7: Members of Nembe community paddle a canoe across Santa Barbara River amidst oil spill,



[Temilade Adelaja/Reuters] 2021

Table 1: Showing the record of oil spill incidence between January 2018 and July 2020

States	Abia	Akwa Ibom	Bayels a	Cross River	Delta	Edo	Imo	Ondo	Rivers	Other s	Total
No.of Spills	31	70	164	0	229	22	43	2	527	19	1,107
% of Incident s	2.8 %	6.32 %	14.8%	0.00 %	20.69 %	1.99 %	3.88 %	0.18 %	47.67 %	1.72 %	100 %

Source: <https://www.oilspillmonitor.ng/#/198368.2020-2585998>

Table 2: showing multiple spills in the Niger Delta region in 1 -10year period

NIGERIA

Multiple oil spills in the Niger Delta region

Oil was first discovered in commercial quantities in 1956 in Nigeria, and there have been multiple oil spills in the Niger Delta since then. In the last ten years, there have been 9,828 episodes documented, according to the government's spill detection agency.

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

*Join Investigation Limit

Source: nosdra.oilspillmonitor.ng



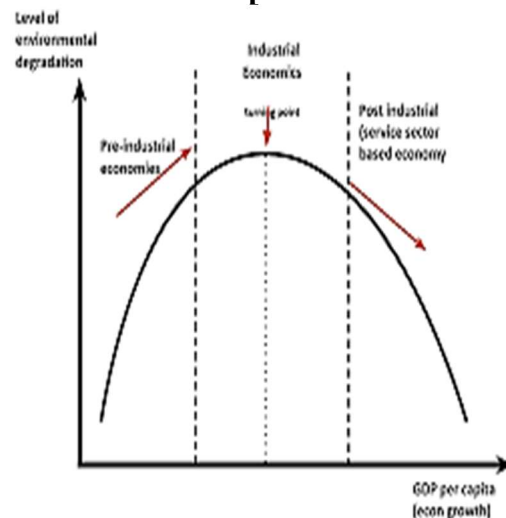
Table 1 shows that all the states of the Niger delta region have at one time or the other experienced oil spillage. This condition has adversely affected the indigenous people whose entire livelihood is dependent on farming and fishing; including numerous health issues reported by the indigenes of these communities. It is unfortunate that this ugly reoccurring incident has reduced the life expectancy of the victims to only forty years; ten years lower than the national life expectancy average (Ekpali; 2022). This condition has subjected these helpless women to perpetual impoverishment, frustration and unhealthy psychological disposition.

2.1 Theory Framework

Environmental Kuznets Curve (EKC)

Simon Kuznets developed a theory known as Kuznets Curve in his article “Economic Growth and Income Inequality” (cited in Bodin, 2022) where he explored if income distribution varies according the growth of a country’s economy. He coined a hypothesis that with lower rate of economic growth, there is a corresponding rise in economic inequality. However, with increase in economic growth up to a point he refers to as ‘turning point’, economic inequality begins to decrease. Later, Grossman & Kruger developed the Environmental Kuznets Curve (EKC) in their study of the impact of North American Free Trade Agreement (1991); basically, looking at the link between the level of environmental degradation and economic activity. They thus, applied the EKC further in “Economic Growth and the Environment” where they found the inverted U-shape of relationship between environmental degradation and economic growth. They posit that with lower levels of income per capita in a country, the country experiences a higher degree of environmental degradation. At a turning point however, with increased income per capita, there is a declining level of environmental degradation (cited in Bodin; 2022). This is demonstrated in an inverted U-shaped graph below:

Figure 8: Showing the inverted U-shaped Kuznets curve



Graphical illustration of the Environmental Kuznets Curve
(Source: EconomicsHelp)

Clearly from the above, the curve is divided into three 'phases' the pre-industrial economies, industrial (which includes the turning point) and post-industrial economic stages respectively. A positive relationship between GDP and environmental degradation shows in the pre-industrial phase. At this stage economic activities are on top gear increasing industrialisation, which invariably raises emissions. The target at this stage is to improve conditions of living, so environmental destruction is not a concern in this stage. The second stage shows the peak of industrialisation and gets to a turning point. At this level, the relationship between GDP and environmental degradation gets to the peak and changes from a positive relationship to a negative one with a high level of environmental degradation. At this level the country experiences stabilisation in its industries and income, and begins to develop technologies to reduce emission and environmental degradation. This stage is a prelude to the third and last phase of the EKC which is the post-industrial economic phase. At this stage, there is a strong negative correlation between GDP and environmental degradation at the third stage. Thus, an increase in a country's income produces a corresponding decrease in its emissions. This is because, at this stage, the economy has moved from an industry sector to a service sector, producing lower emissions. Besides that, more advanced technologies that help reduce emissions have been developed at this stage.

Pettinger (2019) thus, summarises the theory, noting that the environmental Kuznets curve submits that economic development originally leads to a decline in the environment, but after a certain level of growth, a society begins to improve its relationship with the environment which then reduces the degree of environmental degradation.

However, critics have questioned the empirical validity of the EKC, claiming that EKC should be supported not only by theory, but by empirical data and tests as well; hence, Ekins (1995), Copeland and Taylor (2004) argue that there is very little evidence to support the EKC theory, claiming that a causal relationship between economic growth environmental degradation is vague; They argue that there are more important factors that affects environmental quality other than just income per capita; while Stern (2004) pointed out that due to recent technical developments, simultaneous reduction in emission has occurred both in poorer and richer countries, rather than being determined by income per capita.

3.0 Methodology

The study explores both primary and secondary sources. Oral interview was used to obtain primary data, while secondary sources include documentaries, books and other online publications. Interviews were conducted on 12 women and 6 men from the part of Niger Delta mostly affected by oil spillages especially Ogoni, Akwa Ibom and Delta. Many respondents were not recruited for interview because basically the same situation occurs in all the Niger Delta regions. Questions were directed to elicit information on agency or government interventions and how effective those interventions have been in impacting the lives of these women.

4.0 Findings

Responses and Interventions

In response to the above environmental menace, Niger Delta women formed themselves into community-based associations through which they voice their demand via consultations and sometimes protests under NGOs seeking government interventions.

Protests

Most recently, in February 2024, women of the Niger delta staged a peaceful protest against the Shell's intention to sale off their on-shore assets to investors. Thus, some community-based women organisations and environmentalists under the umbrella of Alauchi Women Development Initiative, Mba Okase Women, Eleme, Abua Women Association, Coalition of Ogoni Women Development Initiative, Pius Dukor Foundation, Kallop Environmental Centre, led by Kebetkache Women Development & Resource Centre, marched to the Rivers State government house in a peaceful protest expressing their dissatisfaction with Shell's announcement to sell off their on-shore assets to investors without engaging the communities (that have suffered decades of environmental destruction) in consultation or any adequate compensation paid. The group therefore requested that the Oil companies; SPDC, Nigeria Agip Oil Company (NAOC), Exxon Mobil Nigeria Limited, and Total Energy Nigeria Limited, prepared to sale all their onshore assets should redeem the environment before the sales. **"NO DIVESTMENT WITHOUT ECOSYSTEM RESTORATION!** the women demanded.

During the UN Women's event Leaders forum on the future women want, Usikpedo-Omoniye (2012), under the umbrella of the Niger Delta Women's

movement for Peace and Development (NDWPD), pointed out that oil operations in the Niger delta, together with other environmental issues have left a cumulative impact on the entire ecosystem of the region. She suggested that both the federal government of Nigeria and the multinational oil companies operating in Odi, Jesse and the entire Niger-Delta region should make intensive efforts at providing potable water in Odi, and clean up the environment continually polluted by the diverse oil exploration operations carried out by these multinational companies.

Decrying the degree of degradation in the Niger delta rightly described as “An Environmental Genocide”, the Bayelsa State Oil and Environmental Commission (2023) informed that Non-governmental agencies, and the oil companies themselves, have also contributed efforts to control the destruction of biodiversity in the Niger Delta. The commission revealed that in November 1981, an association of 11 oil companies operating in the Niger Delta, including the Nigeria National Petroleum Corporation (NNPC), formed the Clean Nigeria Associates (CNA) to help prevent and control oil spills in the region. The Shell oil company also established the Niger Delta Environmental Survey (NDES) in collaboration with all members of the Oil Producers Trade Section (OPTS) of Lagos Chambers of Commerce. The NDES was jointly funded by OPTS, Shell, and former Rivers and Delta States governments. The main purpose of establishing NDES was to provide the following:

i) a comprehensive description of the Niger Delta area, identifying its ecological zones, boundaries and its natural resources; ii) an integrated view on the state of the Niger Delta environment and its relationship with the local people; iii) an indicative plan for the development and management of the Niger Delta area; iv) an analysis of the causal relationships between land use, settlement patterns, industry and the environment, to provide a base line for future development planning.

Other Non-governmental organizations (NGOs) such as ‘Living Earth Nigeria Foundation’, ‘Our Niger Delta’, and ‘Environmental Rights Action’, embark on public awareness sensitization and conservation of projects in the area; and working together to stop further destruction of the Niger Delta’s delicate ecosystem.

Government

In response to the environmental degradation in Nigeria, government has established comprehensive policy and laws guarding against environmental and

biodiversity destruction. This policy was captured in 1999 Constitution of the Federal Republic of Nigeria. Pursuant to section 20 of the Constitution, the State is empowered to protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria. In addition, section 2 of the Environmental Impact Assessment Act of 1992 (EIA Act) provides that the public or private sector of the economy shall not undertake or embark on or authorize projects or activities without prior consideration of the effect on the environment. In this regard, the Federal Government of Nigeria promulgated various laws and Regulations to safeguard the nation's environment. These include: Federal Environmental Protection Agency Act of 1988 (FEPA Act) repealed by the National Environmental Standards Regulation Agency (NESREA) Act 2007. The following Regulations were made pursuant to the FEPA Act: Environmental Protection in Effluent Limitation; Pollution Abatement in Industries and Facilities Generating Wastes; and The Oil Pipeline Act of 2004. The NESREA Act allows each State and Local Government to set up its own agency for the protection and improvement of the environment within the State. Each State is also empowered to make laws to protect the environment within its jurisdiction. It is however unfortunate that these laws cannot be implemented because most state and local-government institutions involved in environmental resource management lack funding, trained staff, technical expertise, adequate information, analytical capability and other prerequisites for implementing the comprehensive policies and programs. (Bayelsa state oil & Environmental Commission.; 2023)

Oil Companies

The Oil Pipeline Act of 2004 makes it liable for the holder of an oil mining or exploration lease to 'pay compensation to the owners or occupiers for any damage' done to buildings, crops or profitable trees. This legislation includes damage 'as a consequence of any breakage of or leakage from the pipeline, or any auxiliary installation. However, the level of the compensation on offer is effectively decided on the basis of a valuation based on the Land Use Act designed to pay for compulsory purchase, rather than damage related to oil operations, as no specific formula is provided for calculation of the extent of damage. This is compounded by the fact that in most cases either the compensations do not get to those they were actually intended for, or get to them as peanuts. For instance, compensations are provided for victims in the on-going Ogoni Clean-up Project, but only very few persons who have access to those in charge or can meet their bidding benefit from the fund, as revealed by one of the

respondents on this. This has often led to violent conflicts subjecting the already traumatised women to further victimisation.

Explaining why the existing system doesn't work, (NOSDRA; 2014), pointed out that what is paid varies from place to place, with obvious unfairness, even when compensation is finally paid. NOSDRA also noted that "at present, neither the claimant nor the polluter can be held accountable for overdemanding or underpaying, since there is no real binding statute defining what is 'fair and reasonable' compensation. "Nigeria lacks a distinct compensation code which specifies the processes and methods that are to be used in compensation assessment under different circumstances. Furthermore, the enabling legislation on compensation – the Land Use Act – largely ignores the issue of pollution and its environmental damage... NOSDRA therefore concludes that the current situation regarding oil spill compensation in Nigeria is extraordinarily complex, and hence needs to be re-examined for reform.

From responses gathered during interviews conducted, responding to the question of whether any compensation is being paid to the victims of Ogoni oil spills during this Ogoni Clean-up exercise, one of the respondents revealed that 'yes compensation is going on in this Ogoni Clean up exercise, but only a few persons are receiving something', some form of training and grants were also given to only very few of them'. The second respondent pointed out that the authorities paying the compensation use some forms of gimmick to deny some persons access to compensation. For instance, they were asked to provide their voter's card or NIN as qualifying criteria to receive compensation. Apparently, a whole lot of people especially very rural women who were most affected but could not provide any of these requirements are denied compensation.

On the question of how much were paid to victims, the third and fourth responded said that her brother was paid N500,000.00 after several visits from Port Harcourt to their community, and that 50,000.00 was collected from him as appreciation to the person who helped him collect the money. By the time all his transport fares and other documentary expenses were deducted from the money, one can imagine what an amount less than N450,000.00 can do for someone (whose source of livelihood and entire physical possessions have been destroyed by oil spills) in Nigeria today.

On the question of how these victims of oil spillage survive in the face of their difficulties, the respondent informed that women usually travel far distances to other communities and states not affected by spillage to buy fish, pick periwinkle and other sea food to roast and sale. Sometimes they stay for days in other communities to be able to buy and roast the fish before coming home to sale. Adding all the cost of transport and other logistics, makes fish and other sea food quite expensive.

Discussion

Niger Delta women though still living in highly degraded environment, finding it difficult to eke out a living, still manage to adapt by travelling to other communities to seek means of livelihood, forming themselves into community-based organisations, and seeking interventions. Although interventions come from government through environmental protection laws, oil companies, community women organisations and NGOs engaging in protests, agitations and other forms of advocacy including international collaborations, to find solutions to the plights of Niger inhabitants, the Niger delta women have not experienced any meaningful improvement in their livelihood. In other words, these interventions have not been effective.

From the perspective of the Environmental Kuznets Curve (EKC) used in this study, we learn that the degree of environmental degradation suffered by Niger Delta inhabitants since 1958 exploration began in Nigeria shows that Nigeria has attained the turning point of the inverted U shaped graph, if development is prioritised in the governance system, Nigeria would have developed from industrial to a service sector economy, providing maintenance and developing service industries and technologies that can reduce the degree of environmental degradation as explained in the theory; and yield positive effect. It is however very unfortunate that the Nigerian state watches the 'goose that lays its golden eggs' to continue to grapple with this level of degradation and dehumanisation without decisive effort towards environmental sustainability.

5.0 Conclusion and Recommendations

It is no longer news that oil spill has taken its toll on livelihoods in the Niger delta region, causing high magnitude insecurity to environmental and human life. The degradation caused the environment by oil spills have contaminated and destroyed the mangrove forests, water bodies and the entire biodiversity of the Niger Delta. The Niger Delta mangrove forest known as the third largest in the world, and the

largest in Africa among others provide medicines, fisheries, wood for fuel and construction as well as shelter for the rural inhabitants. Thus, the survival of the endangered species such as Delta elephant, the white-crested monkey, the river hippopotamus and crocodiles, is increasingly being threatened by oil exploration and exploitation activities. Although interventions have come from government, NGOs, Oil companies etc, their efforts have not created any meaningful impact especially in the lives of the women who are always the most vulnerable. To secure the lives of these women and the future of their children, it has become expedient that governments, NGOs, Oil companies etc need to do something different and more critical than their earlier actions, to yield new results more rewarding than previous interventions. Government action at this level is imperative because the mistakes of today will definitely tell on the success level of tomorrow. Therefore, sustainable environmental action taken today is the key to fighting the challenges of the future. From the findings of the study, the following policy actions are recommended:

Government should focus on service sector economy to reduce pressure on the environment; and develop industrial technology that can improve oil exploitation activities, oil pipe maintenance and haulage management to reduce spills. Part of this strategy should involve proper inspection of oil haulage tankers to certify their condition before oil is loaded;

It is important that oil theft and sabotage are controlled by engaging those involved in this act into meaningful economic activities that will divert their attention from pipeline vandalization that often leads to oil spills.

Oil companies should ensure that women are adequately compensated as a matter of precedence; government should also support women to restore their environment, rehabilitate them to ensure sustainable future for them and their children. In addition to financial and infrastructural support, skills acquisition, value re-orientation and training can go a long way to re-align the women.

The analysis of compensation issues related to oil spills in the Niger Delta exposes several critical weaknesses in the existing framework. Addressing these weaknesses requires a multi-faceted approach that includes clearer legal guidelines, equitable compensation processes, and active engagement with affected communities to foster meaningful change and restore the livelihoods of those impacted by oil operations.

There should be a decisive legislation against criminal elements high-jacking the compensation process, making it difficult for victims to access their reimbursements.

Government should establish new agencies or strengthen existing ones to re-enforce the environmental laws; states should equally be empowered through financial and human capital to be able to enforce these laws. The creation of regional spill response centres along coastlines closer to these spill sites can also help to manage oil spill problems in the Niger Delta.

It is also recommended that strategies such as educating communities on the risks of oil spills, response procedures and likely consequences on the environment and livelihoods, and establishing emergency response team within communities, could help foster community engagement for resilience and empowerment.

- Government should work in collaboration with local and international NGOs, Universities and research institutes, to develop strategies that can control cases of oil spills and their consequences.

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