

REPOSITIONING DEVELOPMENT AGENDA IN NIGERIA: THE IMPERATIVES OF ENVIRONMENTAL CLEAN-UP STRATEGIES IN THE NIGER DELTA REGION

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ABSTRACT

Oil and Gas extraction globally, has devastating effects on host communities environment most especially their socio-economic well-being. In Nigeria, particularly the Niger Delta Region, environmental degradation through decades of intensive oil and gas development have acquired international attention and new organizational arrangements for the implementation of the UNEP'S Report (2011) to ensure environmental quality, human welfare and social justice. In some cases, environmental devastations have attained genocidal proportions such that people's means of livelihoods and fundamental life support systems-air, water and food or agricultural resources are near extinction. The region exhibits a high degree of resource alienation due to her strategic economic location and high resource advantages. The acquisition of large expanse of land for industrial location, building of refineries, fertilizer companies etc, besides impacting the environment negatively have also ensured massive decline in agricultural out-put, out-migration of able-bodied youths, over exploitation of the fast disappearing natural resources, engendered social rifts and intensified conflicts. This paper thus highlights the imperatives of environmental clean-up strategies to the recovery and sustainability of the Niger Delta. This is because sustainable environmental development is a precondition for the sustainable economic development of the region. Hence, the authors affirmed that failure to urgently address the challenges of poverty, unemployment and the continued neglect of infrastructural development in the region from which Nigeria's wealth derives; can only breed the ogre of criminality, social unrest, demand for resource control/autonomy and renewed ethnic militancy among the jobless youths of the region.

INTRODUCTION

There has been a burgeoning awareness and worldwide concern for environmental issues since the world's Earth Summits on environment and development were held. For instance, the 1972 Stockholm (Sweden), 1992 Rio de Janeiro (Brazil) and 2002 (South Africa) among others did not only mark a turning point in the global perception of the place of environment in the development process but also spell out strategies for addressing environmental challenges in the context of sustainable development (Adeyemo, 2008). The goals of these earth summits as given by World Bank (1996) stated thus:

To come to an understanding of development that would support socio-economic development and prevent the continued deterioration of the environment; and to lay the foundation for a global partnership between the developing and the more industrialized countries based on mutual needs and common interests that would ensure a healthy future for the planet.

Hence, the world today recognizes the importance of environmental sustainability to the development of nations with regards to the daily complex human economic activities in space, their consequential effects and the urgent need to enhance the natural environment for human welfare and social justice (Poronakie, 2015, Oyegun and Arokoyu, 2003). These earth summits'

goal vis-a-vis their reviewed sub-themes collectively formed the basis for the MDGs (2000) and currently, the UNEP's Report (2011) which recommended environmental clean-up for Ogoniland and the entire Niger Delta Region. The reality of controversy over the years in the region lies with the oil and gas multinationals' legacy of accumulated environmental devastations and a crisis of extant forms of livelihood for which genuine clean-up strategies and sustainable human and physical development are absolute necessities. Appreciating this feat at the sack of Shell Petroleum Development Company (SPDC) from Ogoniland, Ledum Mitee – former MOSOP President said:

There is now a great opportunity for all Stakeholders including the remaining oil multinationals, to address the grievances of the Ogoni people and other traumatized communities in the Niger Delta Region in a way that would send a strong signal to the entire region that we are important and our well-being is important. Now is the time to genuinely address the issue of environmental damage and treat the issue of remediation of Ogoniland and indeed all the communities that make up the Niger Delta with urgency, transparency and commitment by all parties (The Nation, June 9, 2008).

Environmental clean-up is an indispensable part of ecological circumstances needed virtually everywhere man has directly or indirectly afflicted ecologically significant damages to the ecosystem (UNEP's Report, 2011, UNDP, 2006, FEPA, 1999).

In Nigeria, particularly the Niger Delta Region, environmental devastations consequent on decades of intensive oil and gas exploitation have attained genocidal proportions such that the natural resource base/ecosystem, crucial to sustaining independent indigenous livelihoods have been destroyed completely (Poronakie and Kidi, 2012, Ogoni Bill of Rights, 1990). Consequently, peasants have lost the fertility of their lands and water resources, thus making them destitute of mercy in their homeland. Furthermore, it has directly or indirectly endangered the people's health with a much reduced life span through air and water pollution (Nwaogazie, 2006, Nwilo and Badejo, 2008, Saro-Wiwa, 1992); and more sadly too, the economy has not witnessed industrial diversification (Adeyemo, 2008). In fact, the Niger Delta Region which produces oil and gas wealth that sustained Nigeria's economy since late 1950s to date has not transformed the people's welfare in terms of people-centered and participatory development projects. Rather, it has deprived them of their means of livelihoods (land & water), degraded the natural environment, compounded their economic miseries and enriched disproportionately the very few political class. The impacts manifested in loss of arable land, forest depletion, loss of bio-diversity, atmospheric pollution causing acid rain, green house emission, massive reduction in agricultural yield, roof corrosion, sewage and waste water discharge into the environment and the death of vast resources of the mangrove swamp, which constitutes the hatchery for several

varieties of fish and other forms of marine life (Oyegun, 2007, Mmom, 2003, Uchegbu, 1998). As a matter of fact, many of these environmental issues are interrelated because diminishing returns set in when the rate of utilization of the renewable resources is not balanced by adequate conservation techniques and management strategies. The resultant alienation of the people from their homeland and local subsistence base in the face of heightened land shortage further intensified inefficient and inequitable land-use practices that quicken the effects of environment degradation. Acknowledging this submission, Gbosi in Poronakie and Kidi (2012:242) posited:

When the oil companies started their exploration and exploitation in the Niger Delta Region, the oil-bearing communities were basically traditional societies who depended on land and crude labour for their survival. The oil companies acquired the land, polluted the environment and left the land and people without appropriate development. The process of land acquisition, pollution of the ecosystem and general degradation took decades for these impacts to begin to manifest on the environment and the people.

In a nutshell, two major areas of conflict in need of immediate redress which necessitates environmental clean-up in the region are ecological devastation and economic underdevelopment (Basedau and Mehler, 2005). The effects are not only disastrous but have triggered series of crises ranging from corruption, inadequate access to justice, rampant human right abuses, economic sabotage, non or inadequate compensation to insecurity of life and properties as the vulnerability of most of the population heightened frustration and alienation from all levels of government and other authority structures (UNDP, 2006). For these reasons, the people became increasingly distrustful of oil and gas multinationals and even government agencies purportedly created to bring development to the area. Confirming this claim, Anyanugo in Nwanna-Nzewunwa (2009:212) pungently put thus:

Ecological and Social injustices are daily perpetrated against the Niger Delta Region. The latter we can pinpoint as the raison d'etre of crisis in the Niger Delta. The crisis is predicated on the fact that the people are increasingly aware that natural reserve, which previously was thought to be inexhaustible, has its limits. The oil and gas wealth is fast disappearing and the people have next to nothing to show for it except the brutal consequences of environmental degradation.

DEGRADATION-PRONE NIGER DELTA REGION AND EVIDENCE FOR ENVIRONMENTAL CLEAN-UP

Table 1: List of Operational gas projects in the Niger Delta Region.

No	Project	Operating Company
1.	Obiafu/Obrikom Gas Plant	NAOC
2.	Nigeria Liquefied National Gas Plant (NLNG)	NLNG
3.	Obite Gas Plant	EPNL
4.	Oso NGL Plant	EXXON Mobil
5.	Bonny River Terminal	EXXON Mobil
6.	Eleme Petrochemical Plant Limited (EPCL)	EPCL
7.	Warri Petrochemical Plant Ltd (WRPCL)	WRPCL
8.	Soku Gas Plant	SPDC
9.	Obigbo North Gas Plant	SPDC
10.	Imo River Gas Node	SPDC
11.	Agbada Gas Node	SPDC
12.	Cawthorne Channel AGG Plant	SPDC
13.	Cawthorne Channel Cryogenic Gas Plant (CCCGP)	GRL
14.	Eastern Gas Gathering Systems (EGGS) Phase I	SPDC
15.	Soku Gas De-bottlenecking	SPDC
16.	AKogep (Phase) II	EPNL
17.	Agip IPP (Kwale/Okpali)	NAOC
18.	Odidi AGG	SPDC
19.	Bonny NAG Plant Expansion (BNAG)	SPDC/NAOC/ELF
20.	NLNG Train 4 & 5	NNPC
21.	Offshore Gas Gathering & Systems	SPDC
22.	Escravos Gas Project (EGP) 3A on shore	CNL
23.	Olero Creek/Dibi Development	CNL
24.	Escravos Gas To Liquid (EGTL) Project	CNL

SOURCE: Adapted from Chukwueke (2006); “The Prospect of Gas Industry to the Growth and development of the Nigeria Economy” IPS/PTDF Annual Report Petroleum Lecture, University of Port- Harcourt.

Table 2: The Niger Delta oil & Gas Infrastructure and production Related Activities

% Contribution of crude oil export to national forex earnings	Over 80%
Average daily crude oil production	2m bpd
Number of oil wells drilled in the Niger Delta	5,284
Number of flow – stations for crude oil processing	289
Length of oil and gas pipelines in the region	Over 7000kms
Number of export terminals	10
Land area within which the network of pipelines are located	31,000km ²
Number of communities hosting oil/gas facilities	Over 1500
Gas flares – out target date	Dec.2007
Number of petroleum Training Institutions in the region	1
Number of free export/industrial zones in the region	2
Number of gas plants in the region	24
Number of marginal oil fields farmed out to local companies	159
Number of crude oil production companies in the region	11

Source: Adeyemo (2008:13)

The Niger Delta Region which covers approximately 112, 110km² representing about 12% of Nigeria's total surface area; controls over 31, million inhabitants or 22.3% of Nigerian population with the oil and gas industry occupying 5% of the region.(Adeyemo, 2008). The Niger Delta of Nigeria is a gas region associated with crude oil. Tables 1&2 above revealed the level of development of oil and gas industry. There are 5,284 oil wells with 159 oil fields and 7000kms pipelines coverage area linking 259 flow stations across over 1,500 oil – bearing communities (see Table 2).

Average daily production is 2million bpd from 254 producing fields; while 1,183 oil fields have been discovered with 145 oil concessions operational and 143 are open (Nwilo and Badejo, 2008, SPDC, 2003). Hence, licensed oil companies in the region increased from one (SPDC) in 1964 to eleven in 2005. This qualifies Nigeria not only to be called the giant of Africa but also the 6th largest oil producer and member of OPEC and 7th in the world. Similarly, as a gas region, the increase in gas reserves to 187.5 Tcf in 2005 place Nigeria in the 10th position in the world (Chukwueke, 2006). The quality of Nigeria's crude oil and gas is adjudged to be one of the best globally. Based on this analysis, it is naive to say that the Niger Delta Region is poor with respect to the abound inhospitable ecosystems. In terms of economic resources, the region is abundantly blessed. But in terms of economic well-being, the region is very poor. Hence, her economic poverty is exogenously imposed and endogenously marginalized.

In Nigeria, 50% of oil spills is due to corrosion, 28% to sabotage, 21% to oil production operations and 1% to engineering drills, inability to effectively control oil wells, failure of machines and inadequate care in loading and unloading of vessels (Nwilo and Badejo, 2005).

The frequent oil spillage, gas flaring and associated damages in the region especially the oil-producing areas have rendered most of the communities so barren and unproductive that they are deserted. Communities around oil and gas installations at Warri, Forcados, Escravos, Nembe, Soku, Ndoni, Akogep, Ogoniland, Bonny, Brass etc. have experienced negative transformational impacts of environmental degradation due to oil and hydrocarbon pollution arising from drilling, dredging, production, refining and transportation. Consequently, the people's means of livelihoods (land & water resources) and standards of living are progressively marginalized, poverty and unemployment increased and all hopes lost. The situation is further exacerbated by sabotage through artisanal refining, blowouts of oil wells, storage tanks/reservoirs, vandalization of oil and gas pipelines and other heavy metals with leakages which flow into the rest components of the natural environment via hydrological processes. (UNEP'S Report, 2011).

THE IMPERATIVES OF ENVIRONMENTAL CLEAN-UP FOR SUSTAINABLE ECONOMIC AND ENVIRONMENTAL DEVELOPMENT OF THE NIGER DELTA

1. Environmental clean-up in the Niger Delta Region is critical to the sustainability of Nigeria's economy. As a result of man's inability to control pollution arising from his complex economic activities in space, (e.g. unethical oil and gas exploitation) which have directly or indirectly afflicted ecologically significant damages to the ecosystems such that people's means of livelihoods and fundamental life support systems (air, water and food or agricultural resources) are presently at the verge of extinction makes the clean-up exercise obligatory for now. The fact is that the legacy of accumulated environmental despoliation over the decades and long history of basic neglect of the impacts have started to manifest more vigorously than ever before in the region. And pollution, being an invisible killer (Oyegun and Arokoyu, 2002) has grown to such catastrophic proportion that environmental clean-up proves to be the solution.
2. The principal policy objectives of environmental clean-up are geared towards the development of man, space and making natural resources/good things of life available to all, By extension, it reduces the externalities of resource exploration and exploitations, improves human living conditions and mitigates bio-diversity loss, that enhanced successful regeneration of the ecosystem structures upon which all life forms depend (FEPA, 1999); makes environmental clean-up a precondition for the survival of all living organisms including man in the region.
3. Environmental clean-up in its entity provides and maintains enabling conditions under which man and nature as products of creation co-exist in productive harmony (Poronakie and Ibeh, 2014). This it does by enhancing processes of natural resource conservation for the benefits of present and future generations based on mutual needs and common interests. In short, environmental clean-up is a gadget used by the current national development agenda worldwide for the recovery and sustainability of degraded environment such as the Niger Delta Region of Nigeria.

4. It provides employment opportunities for the jobless youths by re-skilling them, regenerating depleted land and water resources and regaining lost hopes and freedom. By so doing, it does not only reduce rural-urban migration and its associated challenges but also stem poverty level and crime rate to achieve relative peace in the region.
5. The clean-up operation in the Niger Delta depicts that its genuine implementation is very crucial to the diversification of Nigeria's mono-cultural economy.
6. For Nigeria to become economically prosperous, socially stable, ecologically regenerative and politically peaceful, environmental clean-up in the Niger Delta Region is a necessity because this ecological zone is the location of the oil and gas sector of the economy and the hub of commerce and industry of the country (Oyegun and Akpoghomeh, 2009).

ENVIRONMENTAL CLEAN-UP STRATEGIES FOR THE RECOVERY AND SUSTAINABILITY OF THE NIGER DELTA

Environmental clean-up strategies that are environmentally non-degrading, technologically appropriate and socially acceptable according to Adeyemo (2008:92) include:

1. **Environmental Restoration:** This is the deliberate and active manipulation of nature in an attempt to create ecosystem structure and processes as close as possible to the state that existed prior to anthropogenic perturbation. It is primarily aimed at speeding the recovery of degraded area.
2. **Environmental Rehabilitation** describes the process of rebuilding elements of an ecosystem structure and function without necessarily achieving complete restoration to its pristine condition. Rehabilitation aims at bringing a degraded environment back to a valuable state for human purposes rather than to a truly pristine state. It is as well, a process of reversing degradation to a certain extent. In the Niger Delta Region, this exercise should be intensified such that degraded environment may still be used for agricultural practices or for any other useful purposes. Oyegun and Akpoghomeh (2009:11) have affirmed that the Niger Delta Region offers a lot of potential for residential, industrial, agricultural, recreational and commercial land-use development.
3. **Environmental Remediation** is the process of cleaning chemical and other contaminants from polluted area by biological and or physical methods. It is often adopted as the first step towards the protection of human and ecosystem health. Besides, in all these measures, polluted soil can also be dug-up, decontaminated or completely taken off the polluted site and stored in secured landfill in perpetuity.
4. **Environmental Reclamation:** This strategy describes a chain of biological, chemical or physical manipulation carried out in order to clean-up and reconstruct severely contaminated or degraded sites in an attempt to return them back to their pristine statuses. In the Niger Delta Region, need arises to reclaim coastal settlements of beach-eroded areas, abandoned flow stations and oil-polluted wetlands using standard techniques to restore their lost structural and functional integrity. This would result in comprehensive land reclamation and settlement schemes to make way for the construction of massive

water reservoirs in the central portions of the Niger Delta to control water levels and check the massive seasonal floods in the regions.

5. **Environmental Recreation:** This is the construction of a new biotic community on a site that is so severely perturbed with virtually nothing left for restoration process to take place. The success of this exercise, however, depends on adequate information from the baseline studies.
6. **Environmental Audit/Monitoring** is an independent and systematic method of verifying that environmental regulations, internal policies and good operating policies governing all the above strategies are diligently applied in accordance with international standard. Since this stage is very crucial in terms of ensuring compliance, there is need to integrate the interest of the local people who are well versed in the knowledge of the environment in order to assess the location, magnitude and spatial coverage of any reported or observed hazard. Hence, for effective monitoring, it should incorporate surveillance, trained personnels and skilled volunteers who can successfully monitor parameters of their local terrestrial, aquatic and atmospheric environments as they are highly technical to capture a good time-series database using GIS, GPS etc.

CONCLUSION

The two major areas of conflict figuring the Niger Delta Region and oil multinationals ably represented by Shell Petroleum Development Company (SPDC) on world conflict scene and crisis resolution agenda are ecological devastation and economic underdevelopment (Basedau and Mehler, 2005). The Niger Deltans' argument is based on the theory of poverty and environmental sustainability propounded by MDGs (2000). This theory sees the environment as the life wire of people living in poverty because they solely depended on it and perceived their well-being as tied to their environment in terms of livelihood, health, vulnerability and the ability to control their lives; hence they are predominantly farmers, fishermen and hunters. And that these occupations make them seemingly inseparable from their environment such that any activity, policy or arrangement that will take or snatch their lands or waters away from them without alternative means of livelihoods is considered a death sentenced or life imprisonment.

This is the reality on ground in the Niger Delta Region over the decades under unethical oil and gas exploitation; and the people have next to nothing to show for it except the destructive consequences of environmental degradation. Thus, from the perspective of sustainable development in which the whole World is watching Nigeria among the committee of nations; genuine implementation of environmental clean-up in the entire Niger Delta Region is a test case of anti-corruption crusade being the first priority of this administration and democratic maturity in the country. However, institutional fragility is recognized to be a key barrier to improving environmental management (Kessler et' al, 2001), several institutional constraints are related to the process of identifying environmental problems, defining strategies, and implementing and monitoring policies. This suggests the need for capacity building for managing the

environmental management process and its legal front alongside the need to rebuild and revitalize institutional structures. Hence, sustainable environmental development needs to adapt continuously to the changing social, economic and political reality in Nigeria.

RECOMMENDATIONS

1. Environmental clean-up exercise for the entire Niger Delta Region needs to be holistically, comprehensively and genuinely undertaken by foreign experts.
2. Government to develop strategic environmental management scheme with a more proactive approach that incorporates environmental protection/clean-up and management issues into long-term economic and other sectoral policies.
3. There is urgent need for constitutional reform especially those affecting oil and gas development and the oil – producing communities in the country e.g. the Oil pipelines Act (1956), Petroleum Act (1969), Land – use Decree (1978), Mineral ACT (1999) etc.
4. As a matter of great urgency, government and oil companies should provide sustainable basic/social amenities to the Niger Deltans such as regular supply of drinkable water, modern health facilities that are accessible and affordable, quality education, constant electricity supply, modern transport facilities and services, modern housing scheme etc.
5. Aggressive youth empowerment/anti-poverty programmes and or gainful employment opportunities in the region.
6. Embark on massive enlightenment campaigns by stakeholders, government agencies, corporate organizations, local authorities, youth bodies etc on community basis to end illegal refining of petroleum products, vandalization of oil and gas installations, kidnappings, killings and other forms of criminalities in the region.
7. Diversification of the economy from oil and gas to mechanized agriculture that is fully backed by government support/encouragement.
8. The developed countries must assist in the development agenda of Nigeria and stop using developing countries as dumping ground for toxic wastes and obsolete technologies.
9. It is imperative to improve capacity building strategy for adequate security of life and property in order to contain current insecurity trends in the country.

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