



Depoliticizing environmental degradation: revisiting the UNEP environmental assessment of Ogoniland in Nigeria's Niger Delta region

Agaptus Nwozor 

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Abstract Based on the pedigree of the United Nations Environment Programme (UNEP) as a credible international organization with proven track records of coordinating challenging environmental assessments and providing scientific and empirical evidence for policymaking and implementation, the Nigerian government invited it to carry out an environmental assessment study of Ogoniland, an oil-bearing community in the country's Niger Delta region. After 2 years of study, the UNEP project team submitted its report which contained science-backed evidence of massive environmental pollution and degradation with serious consequences for biodiversity conservation. The paper examines UNEP's report and recommendations within the context of state commitment to processing the remediation and restoration of Ogoniland. Instructively, over 7 years after the submission of the UNEP report, the various expected actions necessary to facilitate the commencement of the clean-up and remediation programme are still at the preparatory stages thus raising doubts about the commitment of stakeholders to the project, their serial assurances notwithstanding. Using data generated from key informant interviews and

secondary sources which are analysed within the context of ecological modernization theoretical milieu, the paper underscores the interconnection between the restoration of the polluted Ogoniland, the boosting of people's livelihood and sustainable development, all of which would reverse the pressures of conflicts and violence in the Niger Delta region.

Keywords Environmental degradation · Environmental pollution · Clean-up and remediation programme · Environmental assessment · Ogoniland · Niger Delta · Nigeria

Introduction

Oil spillage and attendant pollution have been a major cause of violence and conflicts in Nigeria's oil-producing Niger Delta region due, mainly, to their devastating effects on the environment and means of livelihood, and by extension, the quality of life of the inhabitants. According to Nigeria's National Oil Spill Detection and Response Agency (NOSDRA), the region witnessed about 1879 cases of oil spills between 2014 and 2015 with only 64 of the spill cases cleaned up (Kalejaye 2015a). After decades of agitations, including local and international campaigns, on account of massive pollution and attendant destruction of the Niger Delta environment and buck-passing

A. Nwozor (✉)
Department of Political Science and International
Relations, Landmark University, Omu Aran, Kwara State,
Nigeria
e-mail: agapman1@yahoo.co.uk;
nwozor.agaptus@lmu.edu.ng

involving the triad of international oil companies, host communities and Nigerian government, the United Nations Environment Programme (UNEP) was invited by the Nigerian government to embark on an evidence-based scientific assessment of the environmental effects of oil pollution on Ogoniland. According to Nsima Ekere, the Managing Director of the Niger Delta Development Commission (NDDC), there are over 5000 massively polluted sites across the Niger Delta region with about 25% of such sites located in Ogoniland (Chukwu 2018). After 2 years of extensive assessment of Ogoniland which involved desk review, fieldwork and laboratory analysis, the UNEP project team comprising local and international experts submitted its report to the Nigerian Government on 4th August 2011. The UNEP project team acknowledged that the assessment was the most complex on-the-ground assessments it had ever undertaken and reported extensive contamination of the environment of Ogoniland. It projected that remediation and restoration efforts could take between 25 and 30 years and cost a little over US\$ 1 billion in the first 5 years (UNEP 2011, p. 12).

Instructively, over 7 years after the UNEP project team submitted its report, the clean-up and remediation programme that would underpin the restoration efforts in Ogoniland is still entrapped in bureaucracy. This is despite the observation of the report that the extensive pollution in Ogoniland constituted an immediate danger to public health and thus, required speedy action. The delay, by implication, has unquantifiable cost on the quality of life in Ogoniland and Niger Delta and raises questions on the commitment of the Nigerian state to the global emphasis on ecological sustainability. Although since 2016 some steps have been taken by the Nigerian government towards implementing the UNEP recommendations, such as constituting and inaugurating membership of key committees, appointment of Project Coordinator for the clean-up exercise and the signing of the Ogoni Trust Fund escrow agreement, all these could be categorized as part of the preliminary requirements for the preparatory stage. Thus, there is no actual clean-up going on and this is generally interpreted as evidence of lack of commitment on the part of the Nigerian government. The Movement for the Survival of Ogoni People (MOSOP) alleged that the implementation of the UNEP report had become an image-laundering tool for the government (Chukwu 2017).

The goal of this paper is to interrogate the extent of Nigerian government's commitment to the introduction of sustainable environmental management systems to actualize the recommendations of the 2011 UNEP report on Ogoniland as part of the overall strategy to ensure the ecological sustainability of the Niger Delta region. The restiveness in the Niger Delta manifesting in armed violence against international oil companies (IOCs) and oil facilities as well as oil bunkering and theft (Ezirim 2018) could be linked to the failure to integrate the ingredients of sustainable development in oil production activities. As Huber (2000, p. 270) has pointed out, "sustainable development not only deals with the interdependencies between economy and ecology, but also combines the ecological question with the social question...". The combined effect of the monumental environmental degradation in the Niger Delta region and attendant erosion of their traditional means of livelihoods is the reconfiguration of social relations narratives and metamorphosis from passivity to activism resulting ultimately in self-help strategies of violence (Ukiwo 2007; Obi 2010; The Fund for Peace 2017; Acey 2016; Ezirim 2018).

The conflicts between the Ogoni community and Shell Petroleum Development Company (Nigeria) Ltd (SPDC) in the 1990s led the company to leave the community in 1993 with losses to the country for the past 25 years estimated at over \$177.136 billion based on the production level of 28,000 barrels per day at the time (Okere 2018). The whole essence of the environmental assessment of Ogoniland undertaken by UNEP was to ascertain the extent of environmental degradation and chart pathways for remediation and restoration.

Environmental degradation has paradoxically converted Ogoniland, and by extension the Niger Delta region, into both treasure trove and thrash dump of oil production. Oil production has engendered a spatiality of inequality creating relations of domination and oppression (Lidskog and Elander 2012). The privations associated with environmental degradation in terms of loss of livelihoods, health complications, pervasive poverty and hopelessness reveal the inequality in the benefits and costs of human–environment relationship and draw attention to issues of territorial injustices and uneven geographies and the quest for spatial justice (Lawrence and Abrutyn 2015; Soja 2010). As Soja (2010) has pointed out, the

“inculcation of injustice into our geographies (and histories) arises in a most basic way from the inequalities that are produced from the uneven geographical effects of every individual action and all social processes.”

The clean-up of Ogoniland tends to be a test case as its success would provide a roadmap and template for the clean-up of all hydrocarbon-polluted sites across the Niger Delta region. The restoration of the environment possesses the potential of boosting livelihoods and reversing youth militancy which has made the Niger Delta region a hotbed of unending conflicts and violence. Following this introduction is the next section which explores the theoretical connection between environmental degradation and the remediation and restoration efforts of Ogoniland as recommended by the UNEP report. The next section situates the underlying impetus for the persistent environmental fallouts in the Niger Delta and is followed by an overview of Ogoniland and the trajectory of destructive oil production activities that transformed its once-fertile land to trash dump of unproductivity. The next section summarizes the UNEP’s environmental assessment of Ogoniland and is followed by an in-depth assessment of the implementation status of the recommendations contained in the report. The final section integrates and summarizes the various strands of the discussion and suggests pathways for the consolidation of the environmental restoration of Ogoniland.

Theoretical underpinning

Environmental degradation is at the epicenter of existential contradictions and crisis in Ogoniland. By environmental degradation, we refer to both natural and anthropogenically-induced reduction in the capacity of the environment to meet economic, socio-cultural and ecological objectives and needs of the society as a result of negative, deleterious and undesirable changes (Tyagi et al. 2014). Based on the multifarious negative impacts and enormous risks posed by environmental degradation to the continued sustainability of the ecosystems, and by extension the survival of humanity, it is listed by the United Nations High Level Panel on Threats, Challenges and Change as one of the ten threats to humanity (Becker 2014; Tyagi et al. 2014).

The destruction of the capacity of the Niger Delta environment for sustainable livelihoods is a product of several factors ranging from lack of due diligence in operational protocols by oil operators, obsolete and inappropriate technology, lack of appropriate and current regulations, the poor enforcement of extant regulations, absence of fitting penalty, including exemplary damages, condonation of the operational double standards of the IOCs to pervasive corruption. Notwithstanding the extant legislations aimed at protecting the environment, the triad of the Nigerian government, the oil sector regulatory agencies and the IOCs had, before now, displayed different types of nonchalant attitudes towards the fate of the environment in the processes of oil production. While the government and the relevant regulatory agencies were patently nonchalant and non-committal to their mandate to ensure the compliance of IOCs to extant laws and regulations, the IOCs, on their part, exploited the bureaucratic lacuna by adopting double standards that completely disregarded environmental preservation and sustainability in their permutations and operations.

This paper adopts ecological modernization theory (EMT) to illuminate the underlying causes of environmental degradation, the rationale that underpinned the UNEP environmental assessment of Ogoniland and the obligations imposed on the Nigerian government towards remediation and restoration of the degraded Ogoni environment. EMT provides evaluative and analytic framework to measure the trajectory from environmental degradation to environmental restoration and sustainability in Ogoniland. Although EMT is rooted in the industrialized world, the globalization of environmental issues broadened its narrow applicability thus making it adaptable to the developing world. What, therefore, motorizes the applicability of EMT to the developing world is both the nature of the environment as public goods and the global emphasis on environmental sustainability, which made it a key term in worldwide environmental politics and policy-making (Lidskog and Elander 2012).

The emphasis of ecological modernization is the “radical restructuring of production, consumption, state practices, and political discourses along ecological lines”, which encompasses “resolving environmental problems through ‘harmonizing ecology and economy’, and through ‘superindustrialisation’ rather

than de-industrialisation” (Sonnenfeld 2000, p. 235). Thus, the focus of ecological modernization is on “prevention, on innovation and structural change towards ecologically sound industrial development” (cited in Simonis 1987, p. 7). The advocacy of superindustrialization connotes the adoption of newer generations of technology in the production process to ensure minimal ecological damage as against deindustrialization which is the discontinuation of production altogether as a panacea to environmental degradation.

According to Howes et al. (2010), EMT has five core theoretical themes, namely technological adjustment and innovation; engaging with economic imperatives; political and institutional change; transforming the role of social movements; and discursive change. In order to achieve ecologically sound development, ecological modernization has institutional and technological or material dimensions. While the institutional dimension is anchored on policies, institutions and laws, which orchestrate the reconfigurations that ensure a shift from top-down regulatory intervention by the state to negotiation with industry; involvement of non-governmental organizations in interfacing and interacting with industry and active support from the international community, the technological dimension is preoccupied with technological improvements as well as innovations and positive changes in operational modalities. Thus, the technological and institutional responses of ecological modernization tend to tackle environmental problems with a view to engendering ecological restoration.

The Nigerian Constitution and the body of environmental legislations have the grains of ecological modernization. In addition to section 20 of the Nigerian Constitution, which provides that “the State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria” (The Constitution of the Federal Republic of Nigeria 1999), there are several institutions with direct and tangential mandates on environmental protection. Environmental degradation, which mirrors the decline or deterioration in the quality of the natural environment and the disruption of life-sustaining ecosystems, is the lot of Ogoniland due to the fallouts from oil exploration and exploitation. The decline in the quality of the Ogoni environment due to widespread contamination is directly linked to the erosion of its

capacity to sustain its biodiversity, livelihoods, quality of life and health of the people.

The invitation of the UNEP team and their eventual report are driven by the logic of EMT. The emphasis of EMT on the adoption of newer technology and technological innovation as a means to minimizing detrimental effects of industrial production on the environment and UNEP’s recommendations for remediation and restoration programme involving all stakeholders are in sync. Thus, the UNEP report places a demand on the Nigerian government to pursue state environmentalism, which will help to depoliticize environmental degradation in Ogoniland and enthrone environmental justice necessary for peace to reign between oil operators and Ogoniland as the host community.

Hydrocarbon exploration and production: situating the background for the persistent environmental fallouts in the Niger Delta

Oil exploration and exploitation activities in the Niger Delta have had significant environmental consequences. Although crude oil was discovered in commercial quantities in 1956 at Oloibiri in the Niger Delta region, its search started over half a century earlier. While Steyn (2009) has traced the beginning of the search and exploration for crude oil to 1903, some other scholars have periodized the commencement of the search at 1908 (Ite et al. 2013; Duru 2014). However, there is consensus among scholars that serious attempts at oil exploration started in 1938 when Shell Petroleum Development Company (Nigeria) Ltd (SPDC) (then Shell D’Arcy, part of the consortium of the then Iranian Oil Company (later renamed British Petroleum) and Royal Dutch Shell) was granted an exclusive oil exploration license (OEL) covering the whole of mainland Nigeria (consisting of 357,000 square miles) by the British colonial government (Ite et al. 2013; Raji and Abejide 2013; Duru 2014). Although the Second World War truncated the oil exploration activities of SPDC, it resumed normal exploration activities in 1946 and enjoyed complete monopoly till 1955 when Mobil Producing (Nigeria) Ltd, a subsidiary of American Socony–Mobil Oil Company, was granted oil exploration license to commence operations in Nigeria (Ite et al. 2013).

The oil exploration activities of SPDC yielded dividends in 1956 as it discovered oil in commercial quantities at Oloibiri, (situated 72 km west of Port Harcourt city). This breakthrough was to be consolidated with the discovery of a second oil field at Afam (40 km east of Port Harcourt) (Steyn 2009). The production of oil from these oil fields which reached 5100 barrels per day by 1958 ushered Nigeria into the global oil scene as an oil producer (Steyn 2009; Duru 2014). Oil production brought with it some developmental imperatives. SPDC needed to develop the necessary infrastructure to transport its crude oil from the fields to the company's terminal in Port Harcourt. This was how oil pipelines came into existence. According to Steyn (2009), SPDC laid the pioneer 6" and 10" diameter welded steel oil pipelines from its oil fields which criss-crossed through Umualogu Village (Ahoada Division), Egbema Village (Degema Division) and Obeakpu Village (Aba Division) to Port Harcourt. From the modest discovery of oil fields at two locations between 1956 and 1958, more oil fields have since been discovered in the region and they stand at 606 oilfields (comprising 355 onshore and 251 offshore) (Anifowose et al. 2014). In addition to the initial production capacity of 5100 barrels a day, oil production capacity has expanded astronomically to an optimal level of 2.5 million barrels a day. The CIA World Fact Book¹ estimates the topography of Nigeria's pipeline network to consist of about 12,714 kilometres distributed as follows, "condensate 124 km; gas 4045 km; liquid petroleum gas 164 km; oil 4441 km; refined products 3940 km".

The continuous oil production activities in the Niger Delta region for the past 62 years have had far-reaching consequences on its ecosystem and means of livelihood generally, creating a paradox of poverty and want in the midst of plenty. Prior to the discovery and exploitation of oil in the region, the traditional means of livelihood among the people consisted of three major occupations, namely, fishing, hunting and agriculture. Colonial contacts and governance introduced a fourth major source of livelihood which was forestry (Adugbo 2012). But the fallouts from oil production activities through man-made and system failures in the process of oil and gas production as well

as third party interference in terms of sabotage, theft of production equipment or leaks caused by thieves drilling into pipelines or opening up wellheads in order to steal oil have undermined the environment and practically destroyed these traditional means of livelihoods resulting in pervasive poverty across the Niger Delta region (Higgins 2009; NBS 2012; Anifowose et al. 2012; Acey 2016; Akpokodje and Salau 2015).

Both official statistics and anecdotal evidence confirm widespread environmental degradation of the Niger Delta owing to oil production activities. Nigeria's official sources put the statistics on the quantity of spills at approximately 2300 cubic meters of oil recorded in 300 separate incidents annually (Manby 1999; Human Rights Watch 1999). Relying on statistics provided by Nigeria's Department of Petroleum Resources, Human Rights Watch (1999, p. 55) indicates that "between 1976 and 1996 a total of 4835 incidents resulted in the spillage of at least 2,446,322 barrels (102.7 million U.S. gallons)." A most distressing aspect was that 77% of the spill was lost to the environment. Similarly, drawing data from several sources, Manby (1999, p. 59) has shown that between 1960 and 1997, an estimated 1.07 million barrels of oil were spilled in Nigeria. An updated data on oil spills from Nigeria's National Oil Spill Detection and Response Agency (NOSDRA) spanning 2006 and 2015, indicated the existence of over 5000 spillage sites which were associated with over 9343 incidents (Kalejaye 2015b). The sheer volume of data related to oil spills places Nigeria in the unenviable position of being the country with the highest oil spill incidents among oil producing countries. One of the major reasons advanced for the high incidence of oil spills is the absence of stringent penalty regimes as well as weak regulations. In 2012, Bukola Saraki, then Chairman of the Senate Joint Committee on Environment and Ecology, was quoted to have observed:

Internationally, where there is a spill, the polluter pays for the cost and damage. But it is worrisome that in Nigeria whether an oil spill has been as a result of accident, operational failure, deliberate sabotage, negligence to take adequate measures or refusal to act there is as yet no legal mechanism or structure for determining mode of paying compensation or recovering damages (Umoru 2012).

¹ CIA (Central Intelligence Agency) (nd). The world factbook. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/fields/2117.html>.

The current regime of penalties which NOSDRA can impose consists of a daily fine of N500, 000 (US\$ 1346)² for non-report of oil spill incidents and a fine of one million naira for failing to clean up impacted sites.³ The inadequacy of the extant powers of NOSDRA underpins the ongoing attempt to amend its enabling Act in order to strengthen its capacity in the area of: adequate funding and power to institute civil actions against erring operators, impose deterrent fines and build capacity of its personnel (UNEP 2011; Nwisi 2018; Udoma 2018).

The crisis of development in the Niger Delta manifesting in regional, group and individual marginalization and underdevelopment is rooted in a number of factors, namely: first, the injustice and insensitivity that characterize Nigeria's federal system as exemplified by skewed revenue distribution framework. The revenue distribution arrangement in Nigeria prescribes the allocation of "not less than 13% of the revenue accruing to the Federation Account directly from any natural resources" under the derivation principle [S.162(2), FGN 1999]. The thinking in the Niger Delta region is that 13% derivation is inadequate and this is the underlying basis for the agitation for resource control or what some scholars call "fiscal federalism". Resource control or fiscal federalism denotes the demand for a larger share of revenues accruing from crude oil sales through local autonomy and control (Dibua 2005; Orogun 2010; Omotoso 2010; Ewetan 2012). Contrary to the argument about the inadequacy of 13%, available statistics showed that oil producing states had received a total of N7.006 trillion between 1999 and 2016 under the 13% derivation principle (Eboh 2017). But the bottom-line is that despite the receipt of 13% derivation as well as the establishment of other interventionist institutions to address the fallouts from oil exploration and exploitation activities in the oil-producing states, there are still undeniable manifestations of infrastructure decay, widespread poverty and environmental degradation (Ebegbulem 2011; Acey 2016; Eboh 2017). Several reasons have been adduced for this but at the apex is corruption (Human Rights Watch 2007; Agbiboa and Maiangwa 2012; Babalola 2014)

² Based on CBN/Official Exchange rate of N306/1USD. At the black/parallel market, it was N363/1USD as at May 2018.

³ http://www.nosdra.gov.ng/index141a141a.html?page_id=906.

The second factor consists of an avalanche of retrogressive laws which deny the indigenous peoples a voice in the control of their land, minerals and other natural resources and confer same on the state such as the Petroleum Act of 1969, Exclusive Economic Zone Act of 1978; Associated Gas Re-injection Act of 1979; the National Waterways Decree of 1997 and the Land Use Acts of 1978 (Omoweh 2010). Apart from the fact that rural land is appropriated by International Oil Companies (IOCs) without adequate compensation, the remaining land is degraded through pollution from oil-related activities. According to Human Rights Watch (1999, p. 71), SPDC has acquired "approximately 280 square kilometers of land, or 0.3% of the total area of the Niger Delta" for its operations. A related area of grouse is alienation or underrepresentation in the federal government-established interventionist institutions (Saro-Wiwa 1995). Key institutions of government like Federal Ministry of Environment and the Department of Petroleum Resources among others, "lack adequate representation from the oil bearing communities whose interests and contribution to policy should be considered indispensable" (Allen 2012, p. 70).

The third factor is the loss of income-earning opportunities as a result of environmental degradation and the pollution of land and rivers. Oil exploitation activities in the Niger Delta have had the unpleasant effect of restricting and, in some instances, destroying traditional livelihood structures thus, plunging the people into poverty (Ekpebu 2008; Omagu 2011; Orogun 2010; Pegg and Zabbey 2013). And lastly, the double standard and lack of due diligence in the activities of international oil companies (IOCs) as exemplified by non-standardized operational practices resulting in oil spillages and gas flaring and attendant pollution of the Niger Delta air, water, soils, vegetation and even physical structures (UNDP 2006; Linden and Palsson 2013; Konne 2014). Elsewhere, these IOCs adopted "the highest environmental standards and the best available technology" (Huber 2000, p. 277) but not so in Nigeria.

An overview of Ogoniland and its environmental terrains

Nigeria's Niger Delta region is reputed to be Africa's largest wetland and amongst the most important

wetland and marine ecosystems in the world (Denedo, Thomson and Yonekura 2017). However, this natural endowment is massively eroded due to the unwholesome practice of IOCs in their oil production activities. The combined impact of the destructive oil production operations in the Niger Delta is the multiplication of conflicts, poverty and human rights abuses, all of which devalue the quality of life of the people (Okonta and Douglas 2003). Ogoniland, being an integral part of the Niger Delta region, is not shielded from the general unsavory experience of the region with regard to the negative impacts of oil production activities (Saro-Wiwa 1995).

Ogoniland is situated in Rivers state and in the south-east of the Niger Delta basin. It lies within the following geographical coordinate: latitude $4^{\circ}40'5''N$ and $4^{\circ}43'19.5''N$ and longitude $7^{\circ}22'53.7''E$ and $7^{\circ}27'9.8''E$ (Nkpaa et al. 2017; Bodo and David 2018). Its geographical territory consists of approximately 404 square miles or 1000 square kilometers which accommodates six kingdoms (Babbe, Eleme, Gokana, Ken-Khana, Nyo-Khana and Tai) that make up Ogoniland. Administratively, these kingdoms constitute four local government areas, namely Eleme, Gokana, Khana, and Tai with a total of 226 communities (Watts 2004; UNDP 2011; The Fund for Peace 2017). Notwithstanding the influence of Christianity, the Ogoni worldview is deeply rooted in nature and consisted of the recognition and worship of land as a god. Thus, Ogoni people attribute deep spiritual significance to their land and rivers. (Chereji and King 2015; Bodo and David 2018).

According to the 2006 national census, Ogoniland has a population of 831,726 people. Linguistically, Ogoni people are diverse as they speak multiple languages although Khana has the reputation of being spoken by the largest number of people because of its mutual intelligibility with other dialects of the kingdoms. According to Boele et al. (2001), linguistic studies suggest that Ogoni people settled in their present area over 2000 years ago. Before the discovery and production of oil in Ogoniland, and subsequently, the means of livelihoods of Ogoni people have consisted of peasant agriculture and fishing. The discovery of oil and attendant destruction of the Ogoni ecosystems, initiated a process that dramatically affected the people in a negative way, thus turning the once-fertile land of Ogoni into a trash dump of oil production (Boele et al. 2001; UNEP 2011; Yakubu

2017) and pulling the people inexorably into abject poverty and hopelessness even in the midst of plenty (Demirel-Pegg and Pegg 2015).

The relative prominence of Ogoniland in the narratives of environmental degradation in the Niger Delta is not necessarily because it bears the brunt of the negative impacts of oil production activities more but because of the activities of Ken Saro-Wiwa. Dibua (2005), Orogun (2010) have noted that Saro-Wiwa pioneered a more systematic approach that popularized and internationalized the issues associated with environmental degradation caused by oil production activities. As Orogun (2010, p. 474) asserts, “Saro-Wiwa campaigned against the political marginalization of the Ogoni people, and the collusive reign of terror and military impunity between the Nigerian military dictatorship and Multi-National Oil corporations in the host-communities of the Niger Delta.” The campaign of Saro-Wiwa coincided with the period of increasing global awareness of the link between environmental sustainability and economic development. The sympathy that Saro-wiwa and his Ogoni cause enjoyed flowed from the prevailing global concern about greening the world and ensuring the protection of ecosystems in the face of states’ incapacity to protect their territories and citizens from environmental and health infringements (Spaargaren and Mol 2008).

Oil exploration commenced in the 1950s in Ogoniland. Shortly before Nigeria’s independence in 1960, oil was discovered in commercial quantities. Ogoniland is reputed to be “the 5th single largest oil bearing community in Nigeria” (Allen 2012, p. 87). Following oil discovery, SPDC set up extensive production facilities to aid its operations. The operations of SPDC in Ogoniland had negative consequences on the environment with serious impacts on livelihoods. As at the time SPDC stopped oil production activities in 1993, Ogoniland hosted twelve oil fields, 116 drilled wells, 89 of which were completed, five flow stations, and the capacity to produce a total of 185,000 barrels per day (bpd) (UNEP 2011). At the time SPDC pulled out of Ogoniland’ its daily oil production statistics stood at 28,000 barrels per day which represented about 3% of its total production. According to Manby (1999), Adoki (2011), Allen (2012), Ite et al. (2013), Linden and Palsson (2013), extensive oil spill incidents have severally occurred in various parts of Ogoniland from the 1970s. For

instance, the two earliest incidents of oil spills were the July 1970 oil blow-out from SPDC's facility at Bomu (Dere) that lasted for 2 months and wreaked havoc on the environment by destroying farmlands and other ecological resources (Allen 2012, p. 88) and oil spill in Ebubu which occurred in 1970 but whose destructive effects were visible 19 years later in the form of a five-meter crust in the surrounding vegetation (Manby 1999, p. 64). The exact amounts of oil spilled in the various sites at this early period were never quantified but the enormity of the devastating effects could be gleaned from the large tar mat that formed on soil surfaces owing to the incineration of the spills, which Ite et al. (2013, p. 85) put at "within 0.25 km radius of the point source". From this point, environmental degradation caused by oil spills and uncontrolled flaring became a regular occurrence in the area with slow and inadequate responses from the SPDC and the Nigerian government.

In Ogoniland and elsewhere in the Niger Delta where oil spills have occurred, the variations in the contamination levels range widely across the sites from negligible to heavily contaminated. The direct impact of the environmental degradation in Ogoniland and Niger Delta region as a result of the contamination of rivers and the attendant destruction of fishing grounds as well as the destruction of the arability of the land was the deterioration of the living standard of the people (Pegg and Zabbey 2013). Added to this scenario was lack of compensatory package for the victims of environmental degradation caused by oil spills and gas flaring. All these led the Ogoni people to "see the right to ownership and control of their lives and resources as the only way to protect their environment from further degradation and promote decent livelihoods on Ogoni land" (UNDP 2006, p. 86). Throwing further light on the predisposing factors that instigated the protest mentality in the Ogoni people, Allen (2012, pp. 88–89) asserts,

The point is that it was not mere damage caused by SPDC to the environment in Ogoni land that motivated protests and subsequent violence. That would be too simplistic. It was the inaction of the government and lack of implementation plans on the part of the oil companies that led to deplorable economic, social and political conditions that motivated the protests and violence.

The educated elite of Ogoni extraction inculcated the philosophy of protest and agitation for resource rights in the people of Ogoni and sustained it through MOSOP, a group they formed. El-Kenz (cited in Allen 2012, p. 70) aptly captured the motorizing rationale for the ascendancy of protest and violence in the pursuit of legitimate rights in societies thus: "...violence is the mode of response to the problems that inadequate political institutions and outdated codes of behaviour have proved incapable of solving. ... Youths enraged by the injustice and indignity of a situation [deploy] ... the only means left to them-violence".

By 1990 and through the efforts of MOSOP, "resource rights struggles took a more concrete form, in which the issues became better articulated and the demands of the agitating groups well spelt out" (Omoweh 2010, p. 16). The MOSOP launched the Ogoni Bill of Rights in 1990, which clearly contained their demands for environmental and socio-political rights. This document was to provide a template and springboard for other ethnic nationalities and communities in the region to proclaim their rights over oil resources. According to Omoweh (2010, p. 16), these proclamations included the 1992 "Charter of Demands by Ogbia People; the Kaiama Declaration [which] was launched in 1998; the Resolution [emanating from] the First Urhobo Economic Summit in 1998; the Akalaka Declaration in 1998; the [1999] Warri Accord; the Ikwerre Rescue Charter [of] 1998; the First Niger Delta Indigenous Women Conference [organized] in 1999; the Oron Bill of Rights in 1999 and the Niger Delta Peoples' Compact in 2008".

Ogoniland has also paid for the struggle for resource rights. Apart from the aggravation of rural poverty on account of environmental degradation, it lost thirteen of its most prominent citizens, including Saro-Wiwa, following internal wrangling that initially led to the death of four elders considered as part of the fifth columnists that had planned to undermine and scuttle their agitation. According to UNDP (2006, p. 127), shortly after the presentation of the Ogoni Bill of Rights,

a youth wing sprang up and began organizing protests that were largely peaceful until the killing of the "Ogoni Four" by a mob of other youths on 21 May 1994. The incident culminated in the hanging of Ken Saro-Wiwa and eight other Ogonis. Since then, the youth crisis in Ogoniland

has been pronounced, characterized largely by activities to prevent the oil companies from extracting oil without due regard for the environment and the people.

Before the internal wrangling in Ogoniland that ended fatally between 1994 and 1995, about 300,000 Ogoni people had organized a protest march in 1993. The purpose of the march was “to demand a share in oil revenues and greater political autonomy” (UNEP 2011, p. 25). The demand was not granted and conflict within the region became a recurring decimal. As a consequence of incessant unrest and violence that characterized Ogoniland even in the face of the militarization of the area, SPDC ceased oil exploration and production activities in 1993 (Table 1).

The cessation of oil exploration and production activities in Ogoniland did not protect the region from further environmental degradation. UNEP (2011, p. 25) has provided the reasons,

While no oil production has taken place in Ogoniland since 1993, the facilities themselves have never been decommissioned. Some oil pipelines carrying oil produced in other parts of Nigeria still pass through Ogoniland but these are not being maintained adequately. Consequently, the infrastructure has gradually deteriorated, through exposure to natural processes, but also as a result of criminal damage, causing further pollution and exacerbating the environmental footprint.

So, despite the discontinuation of oil production in Ogoniland, environmental degradation has persisted. There are three-related reasons for this, namely: the persistent effects of previous decades of environmental abuses arising from oil spills, gas flaring and venting, improper disposal of petroleum-derived chemical wastes, contamination of water sources and the marine environment and destruction of farmlands. The second reason is the continued leakages from aged oil pipelines including the Trans-Niger Pipeline (TNP), which traverses Ogoniland. And lastly, the sabotage of oil pipelines, including bunkering and artisanal refining⁴ (Ite et al. 2013; UNEP 2011; Social Action 2016).

⁴ Artisanal refining connotes illegal refining of crude oil in makeshift facilities. Often, this involves using metal drums to boil crude oil and channeled through a network pipes welded together to collecting tanks.

Table 1 Oilfield facilities in Ogoniland at the cessation of oil production by SPDC

SPDC facility	Number
Oilfields	12
Wells drilled	116
Wells completed	89
Flow stations	5
Flow station capacity (barrels per day)	185,000

Source: UNEP (2011, p. 24)

The UNEP’s environmental assessment of Ogoniland

An observation in a 1995 World Bank Report that “Ogoniland used to be covered with a rainforest, but has been largely converted to degraded bush and farmland” summarized the environmental crisis in the Niger Delta (World Bank 1995, p. 25). The environmental crisis led to the launching of bills of rights by oil-bearing communities in the 1990s and beyond. The thrust of these bills of rights centered on two key issues, namely demand for IOCs to adopt more responsible environmental management strategies; and the payment of appropriate compensation to host communities to cater for the economic losses suffered as a result of environmental degradation. The non-compliance to these demands was at the root of the violent events that forced SPDC to shut down its operations in Ogoniland and the explosion of violent activities across the Niger Delta region. Although SPDC claimed that between 1985 and the time it shut down in 1993 it had spent “more than US\$ 2 million on community projects in Ogoniland, primarily for road improvement, water projects, classroom construction, and school equipment”, the general consensus even at that period was that “the impact of the oil company investments on improving the quality of life in the delta has been minimal”, especially in view of its investments and enormous earnings in the region (World Bank 1995, p. 84). Since the shutdown of SPDC facilities in Ogoniland, there was no agreement among all the stakeholders about the way forward which prompted the Nigerian government to invite the United Nations Environment Programme (UNEP) to undertake a comprehensive assessment of Ogoniland in order to identify, evaluate and minimize the

immediate and long-term environmental and public health impacts of oil contamination in the area.

The UNEP project team had international and local components: while the international team had experts in disciplines such as contaminated land, water, forestry and public health who worked under the guidance of senior UNEP managers, the local team comprised experts, academics and support teams made up of logistics, community liaison and security staff (UNEP 2011). It took the UNEP project team 2 years of study that involved a survey of 122 kilometres of pipeline rights of way, a visit to all oil spill sites, oil wells and other oil-related facilities, desk review, fieldwork and laboratory analyses to generate its final report (UNEP 2011). The extensiveness of the fieldwork and the thoroughness that characterized the procedure of the UNEP project team is captured thus,

...UNEP identified 69 sites for detailed soil and groundwater investigations. In addition, samples of community drinking water, sediments from creeks, surface water, rainwater, fish and air were collected throughout Ogoniland and in several neighbouring areas. Altogether more than 4000 samples were analyzed, including water drawn from 142 groundwater monitoring wells drilled specifically for the study, and soil extracted from 780 boreholes. The UNEP project team also examined more than 5000 medical records and staged 264 formal community meetings in Ogoniland attended by over 23,000 people. (UNEP 2011, p. 9).

The starting point of the findings was the acknowledgement of the presence of massive oil contamination in Ogoniland as well as its widespread and severely negative impacts on many components of the environment. The UNEP report also indicated the enduring legacies of the negative effects of oil contamination as exemplified by the presence of heavy contamination after 40 years of an oil spill and despite repeated clean-up attempts (UNEP 2011). Essentially, the Report identified the worst-contaminated components of the environment as:

1. *Soil and groundwater* Soil contamination was found to be in excess of Nigerian national standards as set in the Environmental Guidelines and Standards for the Petroleum Industries in Nigeria (EGASPIN). The pollution of the soil by petroleum hydrocarbons (both crude oil and refined products) was considered extensive in land areas, sediments and swampland. It was also found to have reached the groundwater at levels in excess of the Nigerian standards as contained in EGASPIN. The most serious case of groundwater contamination was at a location close to a Nigerian National Petroleum Company product pipeline at Nisisioken Ogale, in Eleme LGA, where an 8 cm layer of refined oil was observed floating on the groundwater serving the community wells.
2. *Vegetation* Nigeria is acclaimed to have the third largest area of mangrove forests in the world and the largest in Africa. Most of Nigeria's mangrove forests are found in the Niger Delta region. Mangroves are considered very important in the ecology of the Niger Delta. This is so because mangroves are spawning areas for fish and nurseries for juvenile fish. The extensive hydrocarbon pollution of the mangroves resulting in the denudation of leaves and stem have negative consequences for the life-cycle of fish. Also, oil spills resulting in fire outbreaks killed vegetation and created crusts over the land, thus making re-vegetation challenging.
3. *Aquatic* The UNEP investigation found serious hydrocarbon contamination in form of floating layers of oil which varied from thick black oil to thin sheens on surface water throughout the creeks. The pollution of the creeks led to the emigration of fish to less-polluted water bodies. So, since fish tend to leave polluted areas in search of cleaner water, the implication is that fishermen are forced to travel long distances from their localities to search for fish.
4. *Public health* Ogoniland is exposed to elevated concentrations of hydrocarbon pollution in diverse ways, namely outdoor air, food, and drinking water. Through dermal contacts, they are also exposed to contaminated soil, sediments, surface water and hazardous chemicals. UNEP (2011) observes that although local communities appeared to be aware of the pollution of their water sources and associated dangers, lack of alternatives forced them to continue to use the water for drinking, bathing, washing and cooking. The report drew attention to the presence of benzene in drinking water in this region. Benzene, a known carcinogen, was found to be at levels over

900 times above the World Health Organization (WHO) guideline. Exposure to these pollutions has been linked to various severe health challenges like asthma, respiratory difficulties, premature deaths, cancer, and miscarriages among pregnant women.

The report made some findings regarding institutional capacity and capability. It identified factors undermining institutional capacity to include:

1. Inconsistency in the interpretation of EGASPIN. Key government regulatory institutions in the petroleum sector, namely, the Department of Petroleum Resources (DPR) and the National Oil Spill Detection and Response Agency (NOSDRA) have opposing interpretations of EGASPIN. The effect of this contradictory interpretations is the adoption of conflicting thresholds by various institutions for the closure of the remediation process.
2. Lack of qualified technical experts and resources in key government regulatory institutions.
3. Inadequate funding. The report observed that since the establishment of NOSDRA, inadequate funding has robbed it of its proactive capacity for oil-spill detection and in situations that it must visit some oil spill sites, it had always depended on the oil industry for logistical support. The implication of this is that the regulatory agency had never been assertive in its operations.

With regard to industry practices, the UNEP report observed that industry best practices and SPDC's own procedures were not applied in dealing with environmental pollutions, thus creating public safety issues. Additionally, remediation actions taken by SPDC were below both local regulatory requirements and international best practices. In other words, the control measures, maintenance schedules and decommissioning of oilfield infrastructure in Ogoniland were inadequate.

The UNEP report emphasized that on account of the widespread contamination and varying degrees of degradation of the Ogoni environment, its restoration could take 25 to 30 years and would involve all stakeholders such as the Nigerian government, oil industry operators and Ogoniland community. It also noted that “there will not be one single clean-up technique appropriate for the entire area. A

combination of approaches will therefore need to be considered ...” (UNEP 2011, p. 214). The UNEP recommendations were divided into two parts: the first part was concerned with recommendations dealing with emergency measures that would be sequenced to have immediate positive impacts on the Ogoni environment; and, the second part dealt with long-term recommendations that were envisaged to lead to lasting and sustainable improvements in Ogoniland and Niger Delta (Table 2).

The emergency measures highlighted by the report to be initiated immediately included:

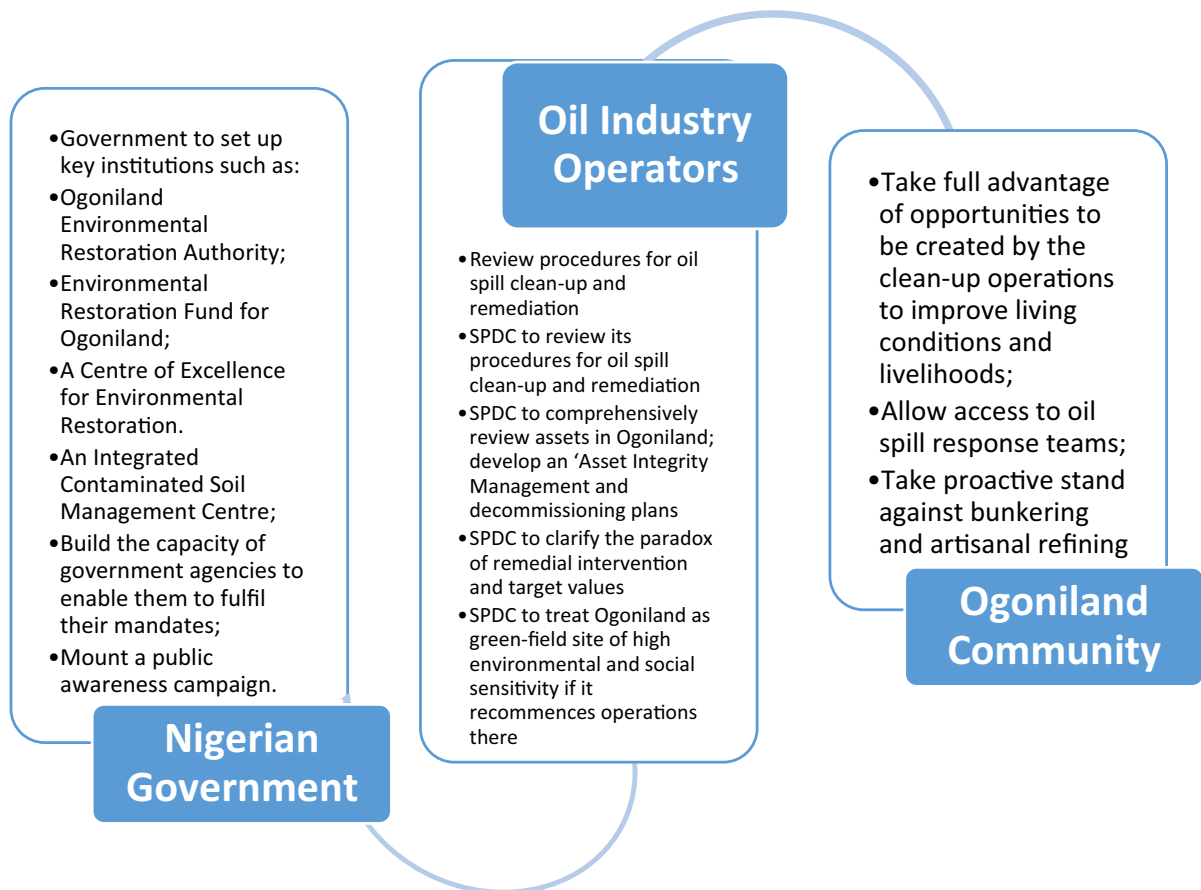
1. Maintenance of oilfield facilities: this entails SPDC comprehensively reviewing its assets in Ogoniland as well as carrying out a thorough test of the integrity of its current oilfield infrastructure. Thereafter, SPDC should develop an “Asset Integrity Management Plan for Ogoniland” (UNEP 2011, p. 205).
2. Decommissioning of oilfield facilities: initiating the removal or decommissioning of all oil facilities that SPDC would no longer use.
3. Prevention of illegal activities: bringing to a stop all illegal oil-related activities such as tapping into oil wells/pipelines, transportation of crude, and artisanal refining across Ogoniland.
4. Development of effective oil spill response.
5. Clean-up of contaminated soil and sediments;
6. The establishment of a modern Integrated Contaminated Soil Management Centre in Ogoniland for clean-up intervention.
7. Decontamination of groundwater and rehabilitation of mangroves.
8. Recommendations for public health comprise: eliminating hydrocarbon pollution of the air and drinking water; relocating those living on oil pipeline rights of way, discouraging involvement in bunkering and artisanal refining and comprehensive medical examination.

The long-term recommendations of the UNEP report were all about consolidation based on the evolvement of appropriate framework for sustainability. The emphases of these recommendations centred on specific actions to be taken by the community, government and multinational oil corporations, especially SPDC (Fig. 1).

Table 2 Summary of UNEP recommendations

Emergency measures	Operational recommendations	Technical recommendations for environmental restoration	Recommendations for public health	Recommendations on monitoring
8-pronged emergency measures on the creation of awareness about safe drinking water	Take immediate steps to prevent existing contaminated sites from being secondary sources of ongoing contamination; Stop artisanal refining	Initiation of measures to protect surface water from further pollution; Restoration of swamplands; Treatment of contaminated sediments; Decontamination of groundwater Mangrove; restoration	Flagging off a comprehensive medical examination for everyone who has consumed water from contaminated sources	A monitoring programme to be put in place in consultation with the national regulatory institutions to oversee clean-up projects; Initiate a comprehensive air quality monitoring across Ogoniland; Open a public health registry for the entire Ogoniland population to monitor health trends

Source: UNEP (2011)

**Fig. 1** Stakeholders' role in the implementation process

Assessing the implementation of UNEP's recommendations

The UNEP report was submitted to the Nigerian government on 4th August 2011 after a 2-year study of the “environmental and public health impacts of oil contamination in Ogoniland” (UNEP 2011, p. 8). Although there were specific recommendations directed at various stakeholders in the Niger Delta, the Nigerian government was ultimately expected to spur, harness and coordinate the activities of these stakeholders. Considering the eight emergency measures requiring immediate action which the UNEP report highlighted, the anticipation was that the Nigerian government would immediately establish the Ogoniland Environmental Restoration Authority (OERA), or an equivalent outfit, to oversee the implementation of the recommendations. Between 2011 and 2015, the Nigerian government took three major interrelated actions namely, the setting up of a Presidential Implementation Committee (PIC), which was jointly headed by the Minister of Petroleum Resources and the Minister of Environment to study the report and advise the Federal Government on the best pathways towards implementation; the establishment of the Hydrocarbon Pollution Restoration Project (HYPREP) and the placement of warning signals at some contaminated sites in Ogoniland (Fyनेface and Akhigbe 2014).

Since the report was submitted, countless consultative meetings and multi-stakeholder workshops had been organized without any comprehensive remediation programme emanating therefrom until 2016 when the clean-up project was launched. The commitment of the Nigerian government was considered grossly inadequate and unreflective of dedication. For instance, HYPREP as an agency established to drive the restoration programme for Ogoniland was constrained by lack of legal backing and operational funds to execute its mandate (Fyनेface and Akhigbe 2014). Thus, neither HYPREP nor the government achieved anything worthwhile in terms of restoring the Ogoni environment until 2015, when Nigeria's president, Muhammadu Buhari announced plans to fast track the implementation of the report. Despite this presidential intervention, it was not until June 2016 that attention was paid to the implementation of the UNEP report: on June 2, 2016 the clean-up and restoration programme was ceremonially flagged off in Bodo town by

Nigeria's Vice President, Yemi Osinbajo; on August 4, 2016, HYPREP was strengthened with the full structural and institutional components to make it effective by appointing the governing council, board of trustees and project management team, which incorporated representatives of the ministries of petroleum resources and environment as well as those of Rivers State government, oil companies, UNEP, NGOs and Ogoniland (Nwabughioqu 2016); and in December 2016, the clean-up programme was gazetted with the provision that SPDC Joint Venture partners would provide 90% of the US\$ 1 billion Ogoni Restoration Fund (ORF) over a 5-year period (Tables 3, 4). Despite this progress, the 2017 budget did not have any provision for the clean-up project.

The assurances by Osinbajo that “financial and legislative frameworks had been put in place to begin implementing recommendations made by the United Nations Environment Programme” (UNEP 2016, np), did not mask the bureaucracy, uncertainties and controversies that bogged the entire clean-up and restoration programme (People's Daily 2017). Since 2017, only three major actions, all of which could be categorized as falling under preliminary arrangements, had been taken to further the clean-up exercise. These included: the appointment of Dr. Marvin Barinen Dekil by the Ministry of Environment and the HYPREP Governing Council as Project Coordinator in early 2017; the provision of US\$ 10 million by the SPDC Joint Venture partners to facilitate the setting up of HYPREP office; and the groundbreaking ceremony for the Integrated Contaminated Soil Management Centre (ICSMC) (Okeke 2017; Iheamnachor 2017; SDPC nd).

A non-governmental organization, Environmental Rights Action/Friends of the Earth Nigeria (ERA/FoEN) at a press briefing on the Ogoni clean-up and restoration programme on April 4, 2017 asserted that no drop of oil had been cleaned in Ogoniland (People's Daily 2017). This situation has remained unchanged as at the end of the first half of 2018. The key activities embarked upon consisted of outreach programmes under the auspices of HYPREP and technical demonstrations by prospective companies to showcase their technical competence in oil spill cleaning as a prelude to their pre-qualification for the clean-up contract (New Telegraph 2017).

There are serious doubts about the preparedness and commitment of the Nigerian government to deal

Table 3 Breakdown/ratio of liability for the first 5 years

S/N	Stakeholders	Recommended total cost for the 1st 5 years	Percentage to be contributed by stakeholders (%)	5-year total to be contributed by stakeholders	Yearly contributions by stakeholders
1	UNEP recommendation for clean-up	US\$ 1 billion	–	–	–
2	Nigerian government	–	10	US\$ 100 million	US\$ 20 million
3	Shell/joint venture partners	–	90	US\$ 900 million	US\$ 180 million
	Total		100	US\$ 1 billion	US\$ 200 million

Source: computed by the author

Table 4 Stakeholders' financial obligations for US\$ 900 million

S/N	Joint venture (JV) partners	JV stakes (%)	Consolidated 5-year total	Consolidated yearly obligation/contribution
1	NNPC/Nigerian Government	55	US\$ 495 million	US\$ 99 million
2	SPDC	30	US\$ 270 million	US\$ 54 million
3	Total/Agip	15	US\$ 135 million	US\$ 27 million

Source: computed by the author

with the Ogoni clean-up even with the announcement by Marvin Dekil, HYPREP Coordinator, that the clean-up of the 26 impacted areas of Ogoniland would begin in August 2018 and the signing of the Ogoni Trust Fund escrow agreement by the federal government, the International Oil Companies (IOCs), and representatives of the Ogoni people (Akasike 2018; Adetayo 2018).

The doubt about the commitment of Nigerian government is basically fueled by internal political dynamics. In December 2017, Nigeria's president, Muhammadu Buhari gave a presidential directive that the clean-up exercise should commence within 6 months. The directive has been variously interpreted, notably, as a decoy to play down on the presidential request for US\$ 1 billion to fight Boko Haram insurgency in the North-east; and as a "political statement" aimed at attracting political sympathy for his party considering the 2019 general elections (Abia 2017). There might be reasonable basis to explain public doubt about the plausibility of the presidential directive to commence the cleaning up of Ogoniland and the Niger Delta within 6 months. The HYPREP Coordinator was quoted to have reacted to criticisms of slowness thus: "remediation is a highly technical process, which requires time and

professionalism, considering the magnitude of impacted sites. [And besides] No two sites have the same remediation plan. Every site has its own peculiar and specific plan. So, we are not in a hurry to get this done" (Abia 2017). Similarly, SPDC spokesman, Igo Weli, was quoted to have explained that majority of the UNEP Report recommendations would require multi-stakeholder efforts and collaboration to actualize (Chukwu 2017). In addition, there is uncertainty about funding. Although SPDC has consistently assured all stakeholders of the availability of its own share of the fund, the same cannot be said of the Nigerian government. The 2018 budget provided only N 20.2 million (US\$ 66,013) for the Ogoni clean-up, which is far below the US\$ 20 million expected to be contributed annually by the Nigerian government. The meagre allocation in the 2018 budget by the Nigerian government for the Ogoni clean-up might dampen the enthusiasm and commitment of other stakeholders, thus jeopardizing the entire project.

Conclusion

It is not without reason that the UNEP report recognized the urgency of dealing with the extensive

environmental contamination in Ogoniland when it highlighted certain emergency measures that must be implemented immediately as well as the need to employ a combination of approaches “ranging from active intervention for cleaning the top soil and replanting mangrove to passive monitoring of natural regeneration” (UNEP 2011, p. 12). It would appear that the Nigerian government has been overly slow in setting the machinery in motion for the take-off of the clean-up and remediation programme for Ogoniland. It took 7 years to put the necessary institutional and governance framework for the clean-up exercise in place without clear signals of the actual take-off of the clean-up project proper.

There is need for renewed urgency in dealing with the environmental crisis in Ogoniland. The clean-up and remediation programme for Ogoniland has series of positive multiplier effects. Apart from restoring the environment and, by extension, the means of livelihood of the people which has direct impact on their quality of life, the restoration of Ogoniland will have wider implication in terms of dealing with the seemingly ubiquitous conflicts and violence in the Niger Delta region. Beyond the restoration of the environment which the clean-up project could achieve, there are several other important considerations that make the commitment of all stakeholders imperative. The more the delay in kick-starting the clean-up project, the more likely it is that the UNEP report could lose its currency thus making it an inaccurate document to guide the clean-up and restoration of the environment in Ogoniland and, by extension, the whole of Niger Delta. Similarly, the continued delay could be detrimental to the restoration efforts as it might undermine the continued overall reliability of the UNEP report and thus require a follow-up confirmatory assessment. Furthermore, considering that some sections of the Niger Delta see the clean up as dummy to enable SPDC reenter Ogoniland to recommence oil production activities, the overall implication is that the tenuous peace in the region might be eroded leading to resurgence of conflict and violence. This paper, therefore, recommends the declaration of environmental emergency as a way to remove the clean-up and restoration programme from political entanglements. In addition to restoring the environment, the Ogoni people (and indeed other Niger Delta people) whose means of livelihoods have been destroyed should be restored

through compensatory packages to reengineer their existential conditions. IOCs and indigenous companies in the oil sector should be made to adopt well-thought out risk financing and insurance frameworks to cater for future environmental degradation. Furthermore, the various regulatory agencies in the oil industry should develop a checklist and technological template that will ensure that oil operators deploy new generation of precision technology in their oil exploration and exploitation operations.

Compliance with ethical standards

Conflict of interest The author declares no potential conflicts of interest.

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