




Environmental Protection in Nigerian Democracy: The Ogoni Clean-Up in Perspective

Harrison Adewale Idowu¹  and Ismail Sano²

¹ Adekunle Ajasin University, Akungb-Akoko, Nigeria
idowuadewale88@yahoo.com

² Obafemi Awolowo University, Ile-Ife, Nigeria
sanohusman@gmail.com

Abstract. This paper examines the progress made thus far on the Ogoni clean-up exercise in Nigeria. Over the years, the people of Ogoniland, a local community in the Niger Delta region, has suffered severe environmental crisis. Despite the fact that Ogoni has produced and continue to produce the country's largest export resources – petroleum, its environment has suffered from mining activities and the people continue to wallow in environmentally induced sicknesses and diseases. Governments (military and democratic) have neglected the community for long. Nonetheless, in 2016, the democratic government of President Buhari set in motion, the environmental clean-up of Ogoniland. Relying on exploratory research design, qualitative method and primary data sourced from semi-structured interviews, the paper critically appraises the Ogoni clean-up exercise. Findings show that although little progress has been made, the progress has been slow and insignificant over the past three years; the project continues to face series of challenges and that the prospect does not look bright. The paper concludes that Ogoni clean-up is best described as an abstraction at the present. Recommendations were directed to the government, HYPREP, Shell and the Ogonis.

Keywords: Environmental protection · Democracy · Ogoni · Niger delta · UNEP · Nigeria

1 Introduction

The Niger Delta region of Nigeria is the country's most endowed region in terms of mineral resources deposits. The region contributes the largest quota to the country's annual GDP, owing to the fact that it houses the country's economic base – crude oil. Paradoxically, however, the region has remained devastated owing to the side effects and remains of mining activities. Not misplaced therefore, that Nworo [17: 31] posits that “no nation, no people had suffered so terrible in the petroleum quest than the Ogonis.” The region consistently endures oil spillage, gas flaring, oil bunkering and militancy, all products of mining activities in the region. These mining aftermaths have resulted in polluting land, water and air, so much so that much of the people suffer one form of ailment or the other. Furthermore, the land in the region suffers from excessive chemical

emissions that most of the land have lost Agricultural value and nutrients, thus, making farming and fishing – the major occupations of the region, a moribund enterprise. The Niger Delta region, thus, suffers from oil exploration by way of taking jobs (farming and fishery) away from them, sickness and diseases, insecurity, among others. Ogoniland, a small community in Rivers State has been the worst hit of the environmental challenges in the Niger Delta region.

For instance, the report of the United Nations Environment Programme [22] shows that there is an unimaginably dangerous concentration of benzene in the air and drinking water in Ogoniland. The report also shows that Ogale in Eleme local government area of Ogoniland, had in its air and drinking water, a benzene concentration which is 900 times higher than World Health Organization's minimum requirement. The report further revealed a high concentration of hydrocarbons in the drinking water, up to the tone of 1,000 times higher than the recommended level for Nigeria [22]. Given the severity of the environmental issues in Ogoniland, UNEP averred that it will take up to 30 years to clean up the land and it recommended an initial injection of US\$1billion into the clean-up project. Despite the weight of the environmental situation in Ogoniland, the Nigerian government made no attempt to salvage the situation.

While Ogoniland continues to suffer severe and devastating environmental challenges, year-in-year out, both military and civilian (democratic) governments have abandoned and pay deaf ears to the plight of the people. In fact, the agitations from the people on the need for government to respond to their plight led to the famous killing of the Ogoni nine, including the murder of Ken Saro-Wiwa, a renowned environmental activist in the region. Albeit, in 2016, the President Muhammadu Buhari's democratic government set the pace for the comprehensive clean-up of Ogoniland. To kick start the clean-up project, the Nigerian government set up the Hydrocarbon Pollution Remediation Project (HYPREP) to ensure the implementation of UNEP recommendations. Since 2016, it has been three years down the lane, how has Ogoni clean-up fared under a democratic government which ideally, is supposed to guarantee the human rights of the people? What are the challenges and prospects of the clean-up exercise? These are the questions this paper seeks to provide tenable answers. While a lot has been said on the clean-up exercise by government officials, private stakeholders, public analysts alike, and reports written, it remains to be empirically examined from the perspectives of the very indigenes and residents of Ogoniland who are the direct victims of these environmental challenges, on what the actual situation is with respect to the Ogoni clean-up exercise. This is the very thrust of this paper.

The paper is structured into six sections. Following this introductory section, the next section presents the literature review. Section three presents the research methods, while the subsequent section presents the research results. The two last two sections are on the discussion of findings; and conclusion and recommendations respectively.

2 Literature Review

Environment could be referred to as the entity which houses humans, plants and aquatic lives, including other molecular elements. It is the habitat of man and animal. A democratic government is one which exists solely for the good, interest and benefit of the

people. It is the government of the people, by the people and for the people [16]. Environmental security refers to a state of preserving and protecting the environment against all forms of activities capable of disrupting or deteriorating the environment. It is ensuring the safety of the environment from all sorts of hazards which could prove dangerous to the environment and the inhabitants. According to Barnett [4], environmental security entails the proactive measures put in place to minimize all sort of threats to the entire components of the environment; human and other organisms inclusive. The US Department of Defense [23] posits that environmental security entails acts of compliance to environmental laws, restoration of lost values, prevention of environmental pollution, environmental conservation, among others. Environmental security is to guard against environmental degradation so as to protect natural resources, humans and other materials within the environment [5]. Environmental security is germane and very critical to the human existence. To this end, Zurlini and Muller [26: 1351] posit that “the environment is the most transnational issue, and its security is an important dimension of peace, national security, and human rights.” Ratner [19] presents the four dimensions of environmental security according to the perspective of the Global Environment Facility (GEF) in Fig. 1 below.

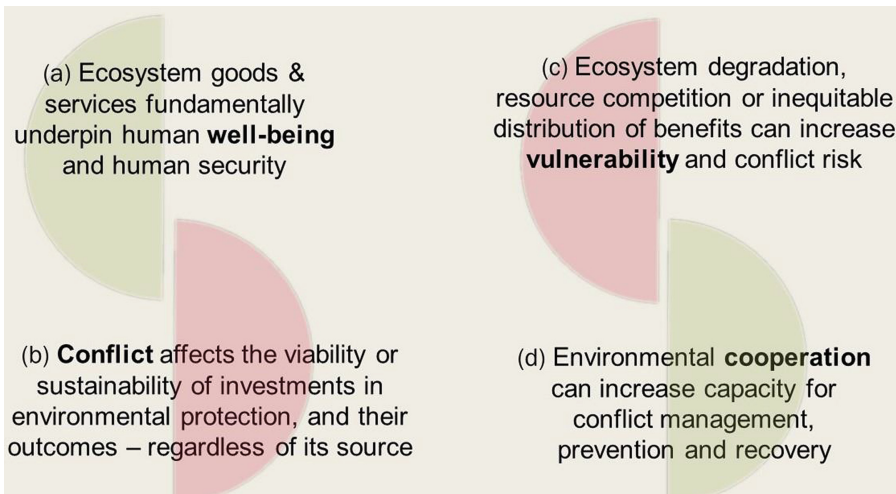


Fig. 1. Dimensions of environmental security. **Source:** Ratner [19: 6]

When the environmental situation in Ogoniland is examined within the context of Ratner’s [19] dimensions of environmental security, then it is easier to deduce whether indeed, Ogoniland is environmentally secured or not. In terms of the ecosystem which Ratner posits underpins human well-being and human security, the ecosystem in Ogoniland has been largely bastardized, thus, constituting huge threat to human wellbeing and security [17, 22: 30–33]. With respect to conflicts, which Ratner avers have negative effects on investments in environmental protection, among others, Ogoniland and indeed, the entire Niger Delta region has been known for various violent conflicts, militancy, kidnappings and other forms of insecurity [7, 25]. Ecosystem degradation can

result in vulnerability and increase conflict risks. This dimension of Ratner's environmental security explains the vulnerability of Ogoniland to sicknesses, diseases [14: 17] and conflicts [7, 17], as a result of ecosystem degradation in the region. Lastly, where there is cooperation with the environment, the prospects for conflict management, prevention and recovery are increased. For Ogoniland, the reverse has been the case as there is outright lack of environmental cooperation in the region [14], hence, the incessant proneness to conflicts. Against Ratner's dimensions of environmental security, it is evident that Ogoniland suffers largely from environmental insecurity.

The drive, passion and desire for more wealth by corporations and individuals alike, has resulted in serious environmental crises across the globe [12]. The spread of capitalism and industrialization and the quest for capitalists to accumulate excessive resources and profits, had, according to Dobson [8], resulted in environmental destruction. This explains the activities of Shell Petroleum in the Niger Delta region of Nigeria. Data collated from UNEP, US Environmental Protection Agency (EPA) and the Toxic Release Inventory (TRI) Program show that a total of 5,374,060 tons of toxic chemicals has been released into the environment globally as of July 20 2019 [24]. This has manifested in air and water pollution, acid rain, land degradation, erosion, depletion of the ozone layer, global warming, among other environmental insecurities. Marx and Weber had first foreseen this when they warned against the rift between human beings and the earth [6]. Capitalism has been seen as largely responsible for environmental crises, even though corporations pretend to be environment friendly [10]. The petroleum industry and oil exploration, one of the prominent means of environmental degradation, have gone a long way in history. Ihunwo [14] avers that this history could be traced to few decades ago in the United States and Western Europe origins. At this point, petroleum industry and oil exploration exercise were exclusively in the hands of the state. According to Parra [18], the relationship between petroleum industries and their host communities was that of colonial relationships. In that situation, the petroleum industries dictated the terms and conditions of relations with the host communities.

In Nigeria, petroleum exploration dates back to 1908 when Tar Sand was being explored in South Western Nigeria [14, 22]. This process was however brought to an abrupt end during World War I, only to resume in 1938. In 1946, after WWII, oil exploration began in Niger Delta region of Nigeria, where in 1956, oil was discovered in commercial quantity at Iloibiri and Afam [15]. Since then, the Nigerian economy has largely survived on oil proceeds. But although this has led to economic boom for the country, the Niger Delta region remains highly devastated and environmentally deteriorated. The role of oil in Nigeria's economy has been explained in that the sector contributes over 95% of the country's foreign exchange earnings and 80% of the resources needed to run the government [1]. The Niger Delta region has contributed over US\$600 billion since the 1960s [15].

Quite in sharp contrast to what obtains in most parts of the globe where oil exploration has driven development in host communities, the Niger Delta of Nigeria has been bedeviled with underdevelopment, poverty, sicknesses, diseases, environmental degradation, among others [14, 22]. Petroleum is formed largely from hydrocarbon which is highly detrimental to the environment, and constitutes serious health hazard to the soil, water, vegetation, aquatic and terrestrial wildlife and on people [14, 22, 25]. While

hydrocarbon products are highly economical, they have been found to have serious environmental consequences, especially during spills [22]. The main sources of severe exposure to petroleum and hydrocarbon which include oil exploration, production and processing, among others, are common in Ogoniland. Also, some environmental degradation and insecurity issues have the capacity to trigger conflicts in host communities. Furthermore, where there are scarce resources, unequal access/distribution of resources and environmental degradation, these result in environmental-related security risks [26]. Ogoniland could be best described as the epitome of these latter descriptions.

The Fig. 2 below presents the model of the various dimensions of environmental exposure to oil spills.

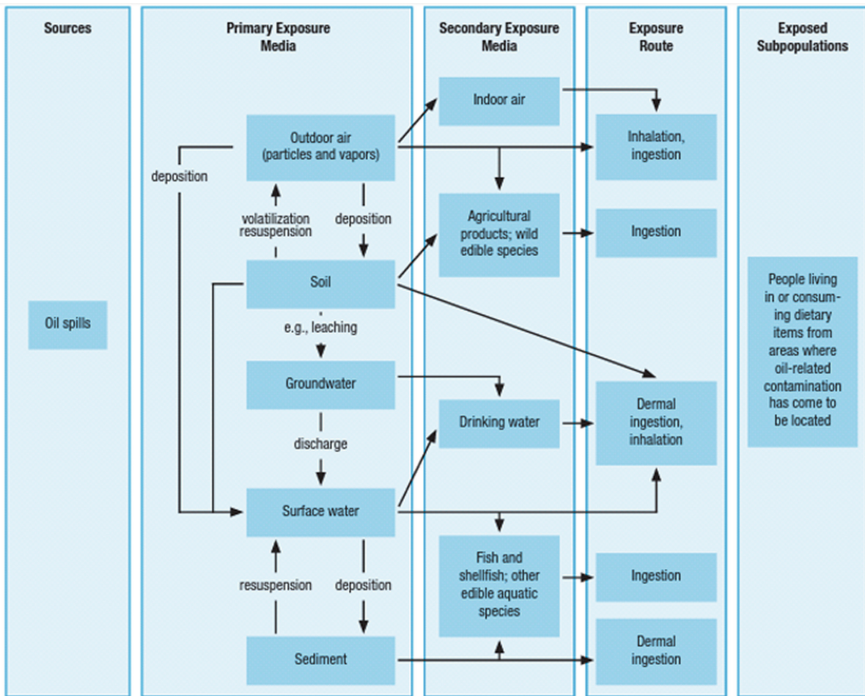


Fig. 2. Model of environmental exposure to oil spills. **Source:** UNEP [22: 40]

Ogoniland suffers significantly from all the above dimensions of environmental exposure to oil spills. This is correct to the extent that the region continues to be exposed to oil spills which result in water, land, air and soil pollution, thereby, causing serious harm to human lives, aquatic species, agricultural produce and wildlife [17, 22: 30–33]. Ogoniland is located in Rivers State, in the Niger Delta region of Nigeria. It has a population of approximately 832,000 people [22]. The community has a population density of 1250 km² [3]. Ogoniland is made up of four local governments of Eleme, Gokana, Khana and Tai [22]. It approximately covers about 100,000 km² of Rivers State and naturally endowed with rivers, creeks and streams [25]. The Fig. 3 below shows the map of Ogoniland for clearer description.

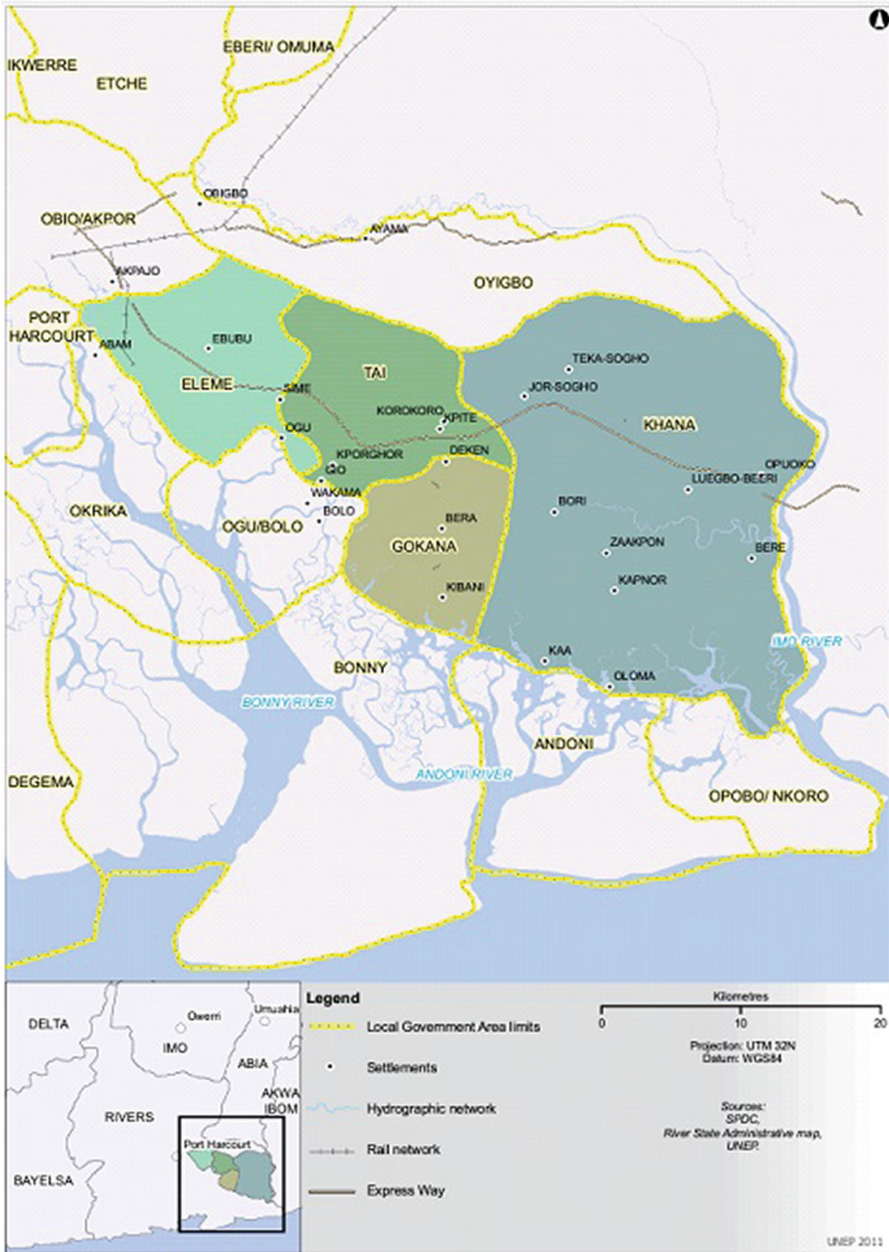


Fig. 3. Map of Ogoniland. Source: UNEP [22: 23]

Because of the environmental setting of Ogoniland, the people are predominantly engaged in farming and fishery. The Ogonis hold the belief that they are intrinsically intertwined with their environment, as such, they do all they can to resist any form

of environmental abuse and violation. The environmental activist, Saro-Wiwa [20: 12] paints the picture of the Ogonis thus:

The Ogoni consider the land on which they lived and the rivers which surrounded them very important. They not only provided sustenance in abundance, they were a spiritual inheritance. The land is a god and is worshipped as such. The fruit of the land, particularly yams, are honored in festivals and indeed, the Annual Festival of the Ogoni is held at the yam harvest. The planting season is not a mere period of agricultural activity: it is a spiritual, religious and social occasion.

The above explains the series of struggles, protests and solidarity marches that Ogoni people have committed themselves in order to preserve and protect their environment in the face of environmental threats. Such struggles and agitations against environmental degradation had led to the execution of the Ogoni nine by the military government in 1995, including the renowned environmental activist, Ken Saro-Wiwa. The environmental devastation in Ogoniland is difficult to describe (see appendices for goring scenes from the community). Given the severe environmental conditions in Ogoniland, the Federal Government of Nigeria invited the United Nations Environment Program in 2008 to conduct an independent assessment of the environmental situation in Ogoniland. The UNEP report recommended among other 27 items, the urgent clean-up of the land with initial startup funds of up to US\$1billion. The Fig. 4 below summarizes UNEP’s recommendations.



Fig. 4. Summary of key recommendation in UNEP Report. Source: Shell [21]

Environmental protection in Nigeria is ensured by the Ministry of Environment, Department of Petroleum Resources (DPR) and the National Oil Spill Detection and Response Agency (NOSDRA), via the instrumentality of the Environmental Guidelines and Standards for Petroleum Industry in Nigeria [9]. The role of these government institutions in ensuring environmental protection/security in Ogoniland, remains largely inefficient.

3 Research Method

The study adopts the exploratory research design, using the qualitative method. It relies on primary and secondary data sources. Primary data were sourced from semi-structured interviews. Interviews were conducted with 20 purposively and randomly selected key informant respondents (KIRs) drawn from among residents of Ogoniland who constitute the local population (10), social justice crusaders and environmental activists (4) conversant with Ogoni clean-up, officials of HYPREP (3), and executive members and leaders of Ogoni community (3). While social justice crusaders and environmental activists, officials of HYPREP and executive members and leaders of Ogoniland were purposively selected, residents of Ogoniland who participated in the interviews were randomly selected. The purposive sampling was based on the experience, practical involvement and interest of respondents in the environmental issues in Ogoniland. Interviews were conducted from July 18 to July 22, 2019. Interviews lasted for between 5 to 25 min. Secondary data were collected from relevant literature and official gazettes and documents. Data were analyzed using content analysis.

4 Research Results: The Progress, Challenges and Prospects of Ogoni Clean-Up

From the data gathered, most of the respondents alluded that there has been little or no progress in the Ogoni clean-up exercise. According to a resident, “The performance has been abysmally poor...I would not say that they [government] are not sincere [with the clean-up], I would say they have not really been committed to the execution of the project.” Also, some of the residents averred that while there are remediation sites already set up in Tai and Eleme local government areas, none has been set up in places like Khana and Gokana. According to a community leader, some environmental activists and residents, the operations of the federal government do not show any sincere commitment to the clean-up. This is as most of the critical and ‘emergency’ recommendations of UNEP like provision of portable water; provision of medical examination and treatment; establishment of the Center for Excellence and an Integrated Soil Management Center; advice to stop all sources of pollution, especially artisanal refining; all of which are germane for the clean-up, have not been put in place. What seems glaring however, as some environmental activists and residents posited, is that there is so much talking and politicking with the exercise, whereas, there is nothing actually going on three years down the lane.

Also, a community leader observed that even though money up to the tone of US\$187 has thus far been released for Ogoni clean up, not a single borehole has been sank in any of the four local government areas of Ogoni. The quality of work currently being done in Ogoni clean-up is also a cause for concern. In the words of another community leader, “The site I visited at Ogolo in Eleme local government area, one of the sites HYPREP claims they are cleaning, they are pouring sharp sand on the pollution to cover it up, and that is what they are calling clean up.” With respect to the pace of work, although HYPREP claims that they are currently doing soil testing and that this could take a very

long process, some social justice crusaders, human rights activists and residents are of the opinion that at least, the UNEP emergency recommendations should first be put in place.

On the other hand, however, HYPREP's account differs significantly from the account of ordinary Ogoni residents, environmental activists, human right fighters and independent stakeholders and observers alike. According to HYPREP, Ogoni clean-up is work in progress and between 2016 and 2019, significant progress has been made. Some members of HYPREP Governing Board aver that all the structures necessary for the success of the clean-up have been put in place, including the HYPREP which was part of the recommendations of UNEP; and a total of 21 contractors have so far been deployed to various clean-up sites. With respect to the health recommendations, a member of HYPREP Governing Board posits that "health studies are being carried out...some health outreaches have been done, where some members of Ogoni community have been treated. Over 20,000 Ogonis have been treated, about 400 of them have had medical operations."

It is pertinent to state that although HYPREP lays claims to these achievements, none of the on-sight assessment by various independent stakeholders so far corroborates with HYPREP's claims. What is glaring however, is that there has been success with setting up so much structures which are grossly non-functional, an Ogoni community leader and some residents lament. While procurement is currently been made to start work on another 30 sites, some members of the HYPREP Governing Board concur with the fact that UNEP's recommendations on the establishment of Center for Excellence, Center for Soil treatment and the [very paramount and pressing need of] provision of drinking water have not been met. The Center for Excellence is to be converted into a University of Environment and Agriculture and the bill is currently undergoing its second reading at the National Assembly.

On the challenges currently besetting the Ogoni clean-up exercise, respondents also aired their opinions. According to some environmental activists and residents, government's insincerity/politicking and insecurity in the Niger Delta region continue to pose threat to the clean-up exercise. Another challenge also identified by respondents is that of corruption and misappropriation of funds. A community leader avers that "187 million [US] dollars thus far released, upon all this money, a borehole has not been sunk in any of the four local government areas of Ogoni. HYPREP went behind us inducing some of our executives with monetary gains." Also, some community leaders, social justice crusaders, rights activists and residents added that lack of transparency in the clean-up exercise, including in terms of financial dealings, lack of accountability on the part of government and HYPREP, absence of any key performance indicator and bureaucratic bottlenecks are some of the challenges besetting the clean-up.

Furthermore, some residents are of the view that some of the challenges facing Ogoni clean-up are distrust and lack of mutual understanding between HYPREP and the locales of Ogoniland; and the challenge of finance, where only US\$187 has thus far been released out of the US\$1 billion required for the first trench of the clean-up exercise. On the other hand, on the part of government and HYPREP, one major challenge besetting the clean-up exercise is that of lack of patriotism and pursuit of personal and selfish interest, rather than that of the community. According to some members of the HYPREP Governing

Board, the selfish desire of certain members of the community to share the money allotted the project and also secure the clean-up contracts for their personal companies without the requisite qualification, have made some to resort to media blackmail and unnecessary litigations. For them [members of HYPREP Governing Board], all of these struggles, agitations, blackmail and litigations serve as distractions for the project. Another serious challenge to the clean-up exercise is the issue of re-pollution, “as we are cleaning, people are re-polluting the place”, a member of the HYPREP Governing Board laments.

The prospects for Ogoni clean-up exercise look bleak. Most of the respondents alluded that with the current situation on ground, if there is no redress, the prospects for actualizing the Ogoni clean-up is very slim. A community leader posits that “with the current model on ground, if we follow it, there is no model whatsoever and it poses a danger not just for the Ogoni environment, but the entire environment of the Niger Delta.” Most other respondents’ accounts corroborate with this position. According to some social justice crusaders, rights activist and residents, except the government and indeed, HYPREP show more commitment and come out straight with their plans for the clean-up, the exercise will not see the light of the day. However, a resident of Ogoniland begged to differ when he posited that “at least this government has tried to flag it [clean-up exercise] off, whereas other governments [military and democratic] have simply ignored the land, even killing those who stood up for Ogoni people.” Interestingly, however, a democratic government should ordinarily exist to protect the lives and rights of its citizens, they owe this to the people.

5 Discussion of Findings

The study found that although a little progress has been made, on a larger scale, the progress of work done since the inception of the Ogoni clean-up has been significantly slow and lacks quality. It seems to be that the clean-up exercise is continuously being politicized. The quality and pace of work in Ogoni is abysmally poor. To this extent, none of the UNEP’s 27 recommendations, among which are emergency recommendations, have been fully implemented. Not even the most critical and needing urgent attention – the provision of drinking water has been met. Three years down the lane, not a single borehole has been dug in Ogoni, the government and HYPREP claim they are still working out the modalities. The fact that sharp sand is being laid to cover up messy and polluted land, speaks to the quality of work going on in Ogoni. While the government and HYPREP keep canonizing the clean-up exercise, the study finds that virtually nothing is going on with respect to the clean-up exercise. There seems to be a persistent loss of human wellbeing and spiritual values [cf. 20: 12] due to continuous activities that are unfriendly to the environment (like artisanal refining, gas flaring and oil spillage) still going on in Ogoniland in the midst of the clean-up exercise. This finding aligns significantly with various reports on the clean-up exercise [cf. 2, 11, 25]. As a matter of fact, the report by the Friends of the Earth International [11] shows that progress has been “painfully slow.”

Also, the study finds that challenges such as embezzlement of funds, corruption, insincerity on the part of government and its agency- HYPREP, and the distrust and lack of mutual understanding between HYPREP and the locales of Ogoni, continue to

pose serious threat to the clean-up. Furthermore, insecurity in the Niger Delta, lack of transparency in the award of contracts, lack of accountability from HYPREP and the government, constitute other challenges currently besetting the exercise. The study also found that bureaucratic bottleneck and red-tapism, lack of finance, unpatriotic behavior of some members of Ogoni community, and re-pollution, are major threats to the clean-up. Some of these challenges have also been buttressed in the reports given by Friends of the Earth International [11]; and Alabi [2].

With respect to the prospects of the Ogoni clean-up, the study finds that should the current situation persist, there is no future prospects for the clean-up. Although the current democratic government has made a major stride over the past military and democratic governments by flagging off the clean-up exercise, the clean-up may not see the light of the day if its current challenges are not nipped in the bud. Friends of the Earth International's [11] lamentation of the pace of work does not portray bright prospects for the clean-up exercise.

6 Conclusion and Recommendations

The paper has been able to appraise the Ogoni clean-up exercise promised in 2015 and flagged off in 2016 by the current federal and democratic government of Nigeria. Although a little progress has been made over the clean-up exercise, but preponderance of opinion suggests that the clean-up could best be described as an abstraction and that no significant progress has been made in the past three years.

The Ogoni clean-up exercise continues to face a number of challenges capable of stalling the exercise and leaving the local community in the current state of environmental degradation.

The following recommendations are therefore made:

- there is the need for the government to be more sincere with the clean-up exercise;
- the government must before anything else, put in place the emergency recommendations of UNEP which it claims are necessary for the clean-up exercise;
- government must make efforts to curb the insecurity in the Niger Delta region;
- HYPREP must make frantic efforts to build and earn the trust of Ogoni people and carry the people along;
- firms, such as Shell Petroleum must cooperate and be supportive of government's efforts to clean up Ogoniland; and
- Ogonis must see this opportunity as one in a lifetime and must thus, cooperate with the government, show patriotism, be patient with the government and shun all forms of activities re-polluting the land.

Appendices

(See Figs. 5, 6, 7, 8, 9).



Fig. 5. Effect of environmental pollution on plants in Ogoniland **Source:** UNEP [22: 101]



Fig. 6. Evidence of environmental degradation in Ogoniland **Source:** UNEP [22: 146]



Fig. 7. Evidence of hydrocarbon and petroleum pollution in Ogoniland **Source:** UNEP [22: 199]



Fig. 8. The situation of water pollution in Ogoniland remains the same after three years of flagging off the clean-up exercise **Source:** Alabi [2]



Fig. 9. Plants still suffer from land pollution in Ogoniland after three years of flagging off the clean-up exercise **Source:** Ibekwe [13]

References

1. Aaron, K.K.: Perspective: big oil, rural poverty and environmental degradation in the Niger delta region of Nigeria. *J. Agric. Saf. Health* **11**(2), 127–134 (2005)
2. Alabi, M.: Investigation: how Buhari administration awarded Ogoni clean up contract to unqualified firms. *Premium Times*, 5 May 2019. <https://www.premiumtimesng.com/investigationspecial-reports/328460-investigation-how-buhari-administration-awarded-ogoni-clean-up-contracts-to-unqualified-firms.html>. Accessed 17 July 2019
3. Balouga, J.: The Niger delta: defusing the time bomb. *International Association for Energy Economics* (2009). <https://www.iaee.org/documents/newsletterarticles/109balouga.pdf>. Accessed 19 July 2019
4. Barnett, J.: Environmental security: new what? In: Seminar, Department of International Relations, Keele University, 4 December 1997
5. Belluck, D.A., Hull, R.N., Benjamin, S.L., Alcorn, J., Linkov, I.: Environmental security, critical infrastructure and risk assessment: definitions and current trends. In: Morel, B., Linkov, I. (eds.) *Environmental Security and Environmental Management*, pp. 3–16. Springer, Dordrecht (2006). https://doi.org/10.1007/1-4020-3893-3_01
6. Benton, T.: *The Greening of Marxism*. Guilford Press, London (1996)
7. Corby, E.: Ogoni people struggle with Shell Oil, Nigeria, 1990–1995. *Global Nonviolent Action Database*, 11 March 2011. <http://nvdatabase.swarthmore.edu/content/ogoni-people-struggle-shell-oil-nigeria-1990-1995>. Accessed 26 Dec 2019
8. Dobson, A.: *Green Political Thought*, 2nd edn. Routledge, London (1995)
9. EGASPIN: Environmental guidelines and standards for the petroleum industries in Nigeria. Department of Petroleum Resources, Nigeria (1992)
10. Friedman, M.: The social responsibility of business is to increase its profits. In: Zimmerli, W.C., Holzinger, M., Richter, K. (eds.) *Corporate Ethics and Corporate Governance*. Springer, Berlin, Heidelberg (2007). https://doi.org/10.1007/978-3-540-70818-6_14
11. Friends of the Earth International: A journey through the oil spills of Ogoniland. <https://www.foei.org/news/oil-spills-ogoniland-nigeria-shell>. Accessed 20 July 2019
12. Gusau, T.I.: *Oil corporation and the environment: the case of the Niger Delta*. Ph.D. thesis, University of Leicester (2012)
13. Ibekwe, N.: Nigeria Govt. clarifies position on clean-up emergency project in Ogoniland. *Premium Times*, 24 April 2019. <https://www.premiumtimesng.com/regional/south-south-regional/326770-nigerian-govt-clarifies-position-on-clean-up-emergency-projects-in-ogoniland.htm>. Accessed 20 July 2019
14. Ihunwo, O.: Review of UNEP report on the environmental assessment of Ogoniland. University of Bologna (2016)
15. Ite, A.E., Ibok, U.J., Ite, M.U., Petters, S.W.: Petroleum exploration and production: past and present environmental issues in Nigeria's Niger Delta. *Am. J. Environ. Prot.* **1**(4), 78–90 (2013)
16. Lincoln, A.: The Gettysburg address, 1863. Abraham Lincoln online. www.abrahamlincolnline.org/lincoln/speeches/gettysburg.htm. Accessed 11 July 2019
17. Nworu, O.S.: Ogoniland clean-up, remediation and satisfactory environment favorable to its development: obligations of the Nigeria state. *World Environ.* **7**(2), 31–41 (2017)
18. Parra, F.: *Oil Politics: A Modern History of Petroleum*. I. B. Tauris, London (2004)
19. Ratner, B.D.: *Environmental security: dimensions and priorities*. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington DC (2018)
20. Saro-Wiwa, K.: *Genocide in Nigeria, The Ogoni Tragedy*. Saros International, Port Harcourt (1992)

21. Shell: The UNEP environmental assessment of Ogoniland: April 2018- recent developments to implement UNEP report recommendations. Shell, April 2018. <https://www.shell.com.ng/sustainability/environment/unep-environmental-assessment-of-ogoniland.html>. Accessed 17 July 2019
22. UNEP: Environmental assessment of Ogoniland. United Nations Environment Program. Nairobi, Kenya (2011)
23. US Department of Defense (1996)
24. Worldometers: Toxic chemicals released by industries this year. Worldometers (2019). <https://www.worldometers.info/view/toxchem>. Accessed 20 July 2019
25. Yakubu, O.H.: Addressing environmental health problems in Ogoniland through implementation of United Nations Environment Program recommendation strategies. *Environments* 4(28), 1–19 (2017)
26. Zurlini, G., Muller, F.: Environmental security. In: Jorgensen, S.E., Fath, B.D. (eds.) *System Ecology* Vol. (2) of *Encyclopedia of Ecology*, pp. 1350–1356. Elsevier, Oxford (2008)