

**Burden of Proof:
Real Burden in Environmental Litigation
for the Niger-Delta of Nigeria**

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ABSTRACT

The Niger-Delta is the oil- and gas-rich region of Nigeria, which has been described as an epitome of the resource curse—poverty, squalor, illiteracy, and environmental degradation exist adjacent to the unspeakable wealth taken from the region.

However, a judicial approach to addressing the environmental degradation in the region has not yielded the desired result because, among other reasons, Nigerian law places the burden of proof in environmental litigation on the plaintiff. The plaintiff has to show on a balance of probabilities that the defendant's action or omission was the cause of the environmental harm that resulted in injury to either the plaintiff or the plaintiff's interest. With pervasive poverty in the Niger-Delta, discharging the burden of proof becomes a herculean task.

Using the United Nations Environment Program's (UNEP) Environmental Assessment of Ogoniland (the UNEP Report) as the focus and Ogoniland in the Niger-Delta as the locus, the findings of this Article can be extrapolated across the Niger-Delta because Ogoniland is a representative of all the environmental conditions of the Niger Delta. The Article argues that the peculiar nature of environmental litigation places insurmountable hurdles in the path of the plaintiffs. This includes the high cost of gathering evidence and the largely technical and scientific nature of the evidence, which is sometimes not only exclusively within the knowledge of the defendants but also in their custody. Add to this the difficulty of proving causation, and the task of environmental litigants in the Niger-Delta region of Nigeria is almost an impossible task.

This Article also discusses an emerging trend in other jurisdictions where the defendant, rather than the plaintiff, bears the burden of proof in environmental litigation. It argues that Nigeria should amend its law of evidence to reverse the burden of proof so that this aspect of Nigerian law can align with the laws in those jurisdictions and with a global pattern of practice.

This Article further argues that, from an equitable point of view, the imperative of reversing the burden of proof duty is underscored by the fact that the potential defendants, including the International Oil Corporations, sometimes deliberately and willfully degrade the environment. It will, therefore, serve the end of justice if the defendants were to bear the burden of proof.

INTRODUCTION

In Nigeria, the rules governing the burden of proof in civil proceedings, which is the type of litigation that most environmental litigation is brought as, is well settled. The burden of proof is on the plaintiff.¹ It may have been desirable to place the burden of proof on the plaintiff in other strands of civil litigation, but considering the peculiar intricacies of environmental litigation, the burden of proof becomes onerous and almost an impossible task for the plaintiff to discharge. This becomes especially true for plaintiffs who would most benefit from initiating environmental litigation. This is because those who bear the brunt of environmental degradation are the illiterate, the poor, and the most vulnerable segments of any given community.² Moreover, considering the cost of gathering pieces of evidence to successfully prosecute environmental litigation, the chances of plaintiffs being able to overcome the burden of proof are slim. Lastly, because the evidence that needs to be adduced to succeed in environmental litigation is mostly scientific in nature, would-be litigants face additional hurdles.

Furthermore, the key players in the Nigerian extractive industry are not only culpable but also complicit in the sustainability crises in the Niger Delta.³ The International Oil Corporations and their government allies transact business electronically and are often in custody of key documents, whose existence and/or content are sometimes unknown to the plaintiffs.⁴ Add to this the difficulty in accessing and obtaining this evidence, which may be undisclosed by the defendants, and the frustrations the plaintiffs face become immediately obvious. Lastly, the trend in most countries in environmental litigation is to shift the burden to the defendants, and Nigeria needs to align its law with the current trend.⁵

¹ Evidence Act (2011), § 131(2) (Nigeria), <https://www.refworld.org/pdfid/54f86b844.pdf> [<https://perma.cc/2XUZ-KCGK>].

² Carmen G. Gonzalez, *Human Rights, Environmental Justice, and the North-South Divide*, in RESEARCH HANDBOOK ON HUMAN RIGHTS AND THE ENVIRONMENT 449, 449–50 (Anna Grear & Louis J. Kotzé eds., 2015).

³ Joseph C. Ebegbulem, Dickson Ekpe & Theophilus O. Adejumo, *Oil Exploration and Poverty in the Niger Delta Region of Nigeria: A Critical Analysis*, 4 INT'L J. BUS. & SOCIAL SCI. 279, 282 (2013).

⁴ See U.N. ENV'T PROGRAMME, ENVIRONMENTAL ASSESSMENT OF Ogoniland 38 (2011) [hereinafter UNEP REPORT].

⁵ See Robert Costanza et al., *Principles for Sustainable Governance of the Oceans*, 281 SCI. 198 (1998).

In this Article, I will advocate for shifting the burden of proof to the defendant. Using the UNEP Report as the focus, I will highlight the environmental challenges that typically confront the Niger-Delta people. Then I will demonstrate why, for the sake of justice, there is a need to shift the burden of proof in environmental litigation in Nigeria.

This Article will employ the doctrinal research methodology. This methodology is used when carrying out “a distinctly legal approach to research,”⁶ like in the case at hand, because it will permit the identification, analysis, and transplantation of legal concepts and laws.⁷ This methodology is particularly useful when the focus of the research is the evaluation of legal instruments and court cases.⁸

I

THE OGONI STRUGGLE

The Niger-Delta area of Nigeria, which is the only hub for oil- and gas-related activities in Nigeria, is made up of many ethnic nationalities, of which the Ogonis are one.⁹ The Ogonis, occupying the eastern flank of the Niger-Delta, can be found in the Eleme, Gokana, Khana, and Tai Local Government Areas of Rivers State, covering about 404 square miles.¹⁰ The Ogonis are bordered by the Ibibio and Anang in the east, the Andoni, Nkoro, and Opobo in the south, and the Ikwerre in the north.¹¹ The official figures of the last census, conducted in Nigeria in 2006, put the population of Ogonis at 832,000.¹²

Perhaps what has brought Ogoniland to both national and international consciousness is its oil and gas resources, which have been more of a curse than a blessing. UNEP sums it up thus:

The history of oil exploration and production in Ogoniland is a long, complex and often painful one that to date has become seemingly

⁶ Terry Hutchinson, *Doctrinal Research: Researching the Jury*, in RESEARCH METHODS IN LAW 8, 8 (Dawn Watkins & Mandy Burtons eds., 2d ed. 2018).

⁷ *Id.* at 13.

⁸ Mark Van Hoecke, *Legal Doctrine: Which Method(s) for What Kind of Discipline?*, in METHODOLOGIES OF LEGAL RESEARCH: WHAT KIND OF METHOD FOR WHAT KIND OF DISCIPLINE? 2, 11 (Mark Van Hoecke ed., 2011), <https://www.bloomsburycollections.com/book/methodologies-of-legal-research-what-kind-of-method-for-what-kind-of-discipline/ch1-legal-doctrine-which-method-s-for-what-kind-of-discipline> [https://perma.cc/ED3P-MFEE].

⁹ IkpoBari Dumletam Senewo, *The Ogoni Bill of Rights (OBR): Extent of Actualization 25 Years Later?*, 2 EXTRACTIVE INDUSTRIES & SOC'Y 664, 665 (2015).

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

intractable in terms of its resolution and future direction. It is also a history that has put people and politics and the oil industry at loggerheads rendering a landscape characterized by a lack of trust, paralysis and blame, set against a worsening situation for the communities concerned.¹³

Like every other Niger-Delta community, the Ogoni may have heaved a sigh of relief when oil was first discovered in Bomu in 1958,¹⁴ due to the prospect of socioeconomic prosperity that often follow such endeavors. However, when at least 634 million barrels of oil valued at \$100 billion were extracted from Ogoniland “with nothing in return except suffering, poverty, sickness, death, and the devastation and degradation of the Ogoni environment,” the sigh became one of agony.¹⁵

Despite the windfall from oil, UNEP notes that Ogoniland remains a “tragic history of pollution from oil spills and oil well fires.”¹⁶ In 2008 and 2009, two major spills occurred that destroyed the entire Bodo Creek.¹⁷ Apart from oil spills and oil well fires, Ogoniland bears the additional burden of playing host to oil infrastructure with attendant environmental implications. As of 1993, Shell’s twelve oil fields, five flow stations with 185,000 barrels per day (b/d) capacity, and a 120,000–150,000 b/d Trans-Niger pipeline were all in Ogoniland, and these facilities have become channels of environmental degradation.¹⁸ The Ogonis responded to the dashed expectations and negative outcomes in the 1990s by forming the now-famous Movement for the Survival of the Ogoni People (MOSOP) under the leadership of Dr. Garrick Leton, with the late Ken Saro-Wiwa—the man who later became synonymous with the movement—serving as spokesperson.¹⁹ MOSOP was conceived as a nonpolitical mass movement.²⁰ It started with the submission of the Ogoni Bill of Rights (OBR) to both the federal government of Nigeria and Shell in 1990.²¹ The OBR “made great impact on the socio-political, environmental, and human rights

¹³ UNEP REPORT, *supra* note 4, at 6.

¹⁴ Tijen Demirel-Pegg & Scott Pegg, *Razed, Repressed and Bought Off: The Demobilization of the Ogoni Protest Campaign in the Niger Delta*, 2 EXTRACTIVE INDUSTRIES & SOC’Y 654, 657 (2015).

¹⁵ Senewo, *supra* note 9, at 665.

¹⁶ UNEP REPORT, *supra* note 4, at 8.

¹⁷ Demirel-Pegg & Pegg, *supra* note 14, at 657.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ Senewo, *supra* note 9, at 664.

consciousness of the Nigerian state and Shell.”²² But in an apathy that exposes the complicity of both the federal government of Nigeria and Shell in contributing to the environmental degradation in Ogoniland, neither the federal government nor Shell responded to the demands made by the OBR.²³ Rather than deterring MOSOP, the movement was galvanized into further action and created an addendum to the original OBR, which was presented to the international community in 1991.²⁴ In 1993, because of the continued hostility between Shell and Ogoniland, Shell moved out of Ogoniland and has yet to return at the time of this writing.²⁵

The federal government of Nigeria responded to MOSOP’s emergence and activities in a brutal fashion. Its crackdown on Ogoniland culminated in the unjust hanging of Saro-Wiwa and eight others in 1995 after a court found them guilty of murder.²⁶ John Major, a former U.K. Prime Minister, describes Saro-Wiwa’s death as “judicial murder,” as he was a target of the Nigerian government before his eventual execution.²⁷ Prior to Saro-Wiwa’s execution by the Nigerian government, he was incarcerated four times between April and July of 1993 and had been banned from traveling either abroad or within Nigeria.²⁸ The government’s complicity in his death could be seen in the fact that he was arrested in May 1994 for the murder of four Ogoni chiefs at a gathering in Gokana—a gathering which Nigeria’s government had prevented Saro-Wiwa from attending. He was arraigned before a special military tribunal that was established with the sole purpose of trying him and other accomplices for incitement of the murders. They were found guilty of murder and sentenced to death by hanging by the tribunal “whose procedures blatantly violated international standards of due process.”²⁹

During this period, “Ogoni became a militarized zone. Incessant military crackdowns and ‘wasting operations’ were conducted in all

²² *Id.*

²³ Rhuks Ako, *A Lega(l)cy Unfulfilled: Reflections of the Wiwa-Led MOSOP and the Localisation of Human Rights*, 2 *EXTRACTIVE INDUSTRIES & SOC’Y* 625, 628 (2015).

²⁴ Senewo, *supra* note 9, at 666.

²⁵ See Victor Adefemi Isumonah, *Minority Political Mobilization in the Struggle for Resource Control in Nigeria*, 2 *EXTRACTIVE INDUSTRIES & SOC’Y* 645, 645 (2015).

²⁶ Senewo, *supra* note 9, at 666.

²⁷ Demirel-Pegg & Pegg, *supra* note 14, at 660.

²⁸ *Id.* at 659.

²⁹ *Id.* at 660 (quoting BROWNWEN MANBY, *THE PRICE OF OIL: CORPORATE RESPONSIBILITY AND HUMAN RIGHTS VIOLATIONS IN NIGERIA’S OIL PRODUCING COMMUNITIES* 125 (1999)).

Ogoni towns and villages These resulted in internal and external refugee situations, destruction of properties, looting, and deaths.”³⁰

A. The Ogoni Report

At the turn of the millennium, which coincided with the return to civilian rule in Nigeria, the federal government, led by the then President Chief Olusegun Obasanjo, showed keen interest in resolving the Ogoni imbroglio. Concerned about the environmental degradation due to the extraction of oil and gas, President Chief Obasanjo invited UNEP to carry out an assessment of the environmental degradation in Ogoniland as a first step in improving the environmental situation.³¹ UNEP swung into action and conducted fourteen months of painstaking investigation, which culminated in the presentation of its report upon which this Article is partly predicated.³²

In the course of its work, UNEP studied 200 locations and conducted soil contamination analysis in 69 of those sites.³³ Water analyses were conducted from 142 groundwater wells to determine the level of contamination.³⁴ Studies were also conducted for the same purpose from soil extracted from 780 boreholes.³⁵ To ascertain the health impact of oil and gas activities on the Ogoni people, UNEP reviewed 5000 medical records and examined 122 km of pipeline in conjunction with holding discussions with about 23,000 people.³⁶ In the ensuing subsection, I will undertake a sectorial analysis of UNEP’s finding, but generally, UNEP confirmed that the Ogoniland environment has been seriously degraded and that this has adversely affected the health of the people. To underscore the extent of the degradation, UNEP concluded that it may take between twenty-five to thirty years for a complete remediation of the environmental degradation in Ogoniland.³⁷

³⁰ Senewo, *supra* note 9, at 666.

³¹ UNEP REPORT, *supra* note 4, at 26.

³² *Id.* at 6.

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.* at 12.

B. The UNEP Report's Specific Findings

After its completion of the Ogoniland Assessment, UNEP submitted its report to then President Goodluck Jonathan in August 2011.³⁸ The UNEP Report was later published in the same year by UNEP and made available to the public.³⁹ UNEP found extensive pollution by petroleum hydrocarbons in the land areas, sediments, and swamplands of Ogoniland,⁴⁰ as well as highly degraded wetlands at risk of disintegration.⁴¹ It concluded that the “Ogoni people live with this [incessant] pollution [constantly]. Since average life expectancy in Nigeria is less than 50 years . . . most members of the current Ogoniland community have lived with chronic oil pollution throughout their lives.”⁴² Based on the gravity of the situation, UNEP recommended the immediate cleanup of the Ogoniland, which was estimated to take twenty-five to thirty years to complete.⁴³ It also recommended the creation of a special agency—the Ogoniland Environmental Restoration Authority—to oversee the cleanup at a cost of \$1 billion,⁴⁴ making it the world’s largest cleanup.⁴⁵ The report generated interest around the world, with people contacting UNEP to offer support for the Ogoni people and providing useful views on a way forward.⁴⁶

On water contamination, UNEP found “in a significant number of locations, serious threats to human health from contaminated drinking water”⁴⁷ It also found “that pollution has perhaps gone further and

³⁸ *UNEP in Ogoniland Newsletter*, U.N. ENV'T PROGRAMME Sept. 2011, at 1, https://wedocs.unep.org/bitstream/handle/20.500.11822/25229/UNEP_Ogoniland_newsletter_Sep2011.pdf?sequence=1&isAllowed=y [<https://perma.cc/DLS8-ZSVZ>] [hereinafter *UNEP Newsletter*].

³⁹ John Vidal, *UN Report on the Ogoniland Oil Spills Could Be Catalyst for Change*, *GUARDIAN* (Aug. 10, 2011, 2:00 AM), <https://www.theguardian.com/global-development/poverty-matters/2011/aug/10/un-nigeria-ogoniland-oil-spills> [<https://perma.cc/LND9-YQ3Z>].

⁴⁰ UNEP REPORT, *supra* note 4, at 9.

⁴¹ *Id.* at 10.

⁴² *Id.* at 204.

⁴³ *Id.* at 12.

⁴⁴ *Id.* at 15.

⁴⁵ Camillus Eboh & Felix Onuah, *U.N. Slams Shell as Nigeria Needs Biggest Ever Oil Clean-Up*, *REUTERS* (Aug. 4, 2011, 8:49 AM), <https://www.reuters.com/article/us-nigeria-ogoniland/u-n-slams-shell-as-nigeria-needs-biggest-ever-oil-clean-up-idUSTRE7734MQ20110804> [<https://perma.cc/C5QB-5C3Q>].

⁴⁶ *UNEP Newsletter*, *supra* note 38, at 1.

⁴⁷ UNEP REPORT, *supra* note 4, at 6.

penetrated deeper than many may have previously supposed.”⁴⁸ UNEP also found hydrocarbons in surface water throughout the creeks.⁴⁹ In the Nisisioken Ogale community in Ogoniland, for instance, it was discovered that benzene, which is highly carcinogenic, contaminated the drinking water source at levels more than 900 times the World Health Organization (WHO) benchmark.⁵⁰ In other places, water from communities adjacent to contaminated sites was contaminated with hydrocarbons, sometimes exceeding 1000 times the Nigerian standard of 3 µg/L.⁵¹

The report also found soil contamination that exceeds Nigerian national standards in land sites close to oil facilities.⁵² In fact, at forty-one different locations the analyses revealed that pollution from hydrocarbons had seeped down and penetrated the groundwater where it accumulated at levels above the Nigerian standard.⁵³

Regarding vegetation, the report notes that oil spills on land often led to fires that devastated vegetation and left a hard layer of debris covering the surface of the land.⁵⁴ UNEP added that when remediation is difficult or done haphazardly, the land surface becomes a breeding ground for alien and invasive species, like the nipa palm, that are resistant to hydrocarbons and further destabilize the ecosystem.⁵⁵ UNEP noted that oil pollution left mangroves stripped of leaves and stems and left coats of a bitumen-like substance that was sometimes thicker than one centimeter on roots.⁵⁶ And because mangroves are spawning areas and nurseries for fish, the life cycles of these species were significantly adversely affected by the extensive pollution of these areas.⁵⁷

With agriculture as the mainstay of the Niger-Delta people,⁵⁸ the unfortunate situation in which the Ogoni people have found themselves

⁴⁸ *Id.*

⁴⁹ *Id.* at 10.

⁵⁰ *Id.* at 11.

⁵¹ *Id.*

⁵² *Id.* at 9.

⁵³ *Id.* at 10.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ NIGER-DELTA REGIONAL DEVELOPMENT MASTER PLAN, NIGER DELTA DEV. COMMISSION 48, 68, <https://www.nddc.gov.ng/NDRMP%20Chapter%201.pdf> [<https://perma.cc/PPC7-ZBBL>] (last visited Feb. 21, 2020).

is alarming because the degradation limits their sources of life and livelihood. For instance, regarding the fishery-agro business, the report notes that the sector is suffering as a result of the contamination of the creeks and the destruction of fish habitat because of a ubiquitous coat of floating oil.⁵⁹ This means ruined businesses for fish farmers who had set up businesses in or near the creeks.⁶⁰

On air pollution, the report notes that benzene was identified in all atmospheric samples “at concentrations ranging from 0.155 to 48.2 $\mu\text{g}/\text{m}^3$. Approximately 10 per cent [sic] of detected benzene concentrations in Ogoniland were higher than the concentrations WHO and the United States Environmental Protection Agency report as corresponding to 1 in 10,000 cancer risk.”⁶¹ UNEP further observed that the exposure to hydrocarbons in air and water was above the normal concentration.⁶²

In conclusion, large swaths of resources in the region have been devastated by oil extraction. Despite these findings, UNEP advises that the report should be taken as a baseline, as fourteen months was not enough time to do a more thorough assessment, suggesting that the situation on the ground may well be worse than reported.⁶³ UNEP concludes that it will take between twenty-five and thirty years for a complete remediation of Ogoniland.⁶⁴ As grim as the situation is in Ogoniland, a judicial approach by way of environmental litigation is not likely to be successful because of the placement of the burden of proof on the plaintiffs. Taiwo Osipitan highlighted this issue of Nigerian law when he stated that a “striking problem of environmental litigation is the operation of the rules of Burden of proof.”⁶⁵ In Part II, I will examine the state of Nigerian law regarding the burden of proof and why it is a difficult standard for plaintiffs to meet.

⁵⁹ UNEP REPORT, *supra* note 4, at 10.

⁶⁰ *Id.*

⁶¹ *Id.* at 11.

⁶² *Id.* at 10.

⁶³ *See id.* at 8.

⁶⁴ *Id.* at 12.

⁶⁵ Taiwo Osipitan, *Problems of Proof in Environmental Litigation*, in ENVIRONMENTAL LAWS IN NIGERIA INCLUDING COMPENSATION 112, 113 (J.A. Omotola ed., 1990).

II THE LAW IN NIGERIA REGARDING BURDEN OF PROOF IN ENVIRONMENTAL LITIGATION

Nigerian law has specific provisions about evidentiary and persuasive burdens of proof. Although Nigeria runs a federal system of government,⁶⁶ Item 23 of the Exclusive Legislative List in the 1999 Constitution of Nigeria places evidence within the purview of the federal government.⁶⁷ The federal government, by virtue of this, enacted the Evidence Act in 1945,⁶⁸ which was premised “on the *Stephen’s Digest of the Law of Evidence* and on the common law of England as it was in 1943.”⁶⁹ Section 131(1) of the Evidence Act places the burden of proof in civil matters on the plaintiffs.⁷⁰

However, the Nigerian Law Reform Commission (Commission)—an agency of the federal government saddled with the responsibility of reviewing Nigeria’s substantive and procedural laws to meet the exigencies of the moment⁷¹—has expressed its dissatisfaction with the continued use of this piece of legislation, which they termed “outdated.”⁷² In the Commission’s submission to *The Report of the Reform of the Evidence Act*, the Commission noted that in modern times, with reliance on electronic modes of communication, transactions, and correspondence, and on computer-generated evidence, it was imperative that legislation reflected these technological changes.⁷³ The Commission went further and made recommendations on areas that required amendments, such as the balance and burden of proof.⁷⁴ The recommendations regarding the burden and standard of proof were particularly profound.

The Evidence Act was eventually amended in 2011, but the section on burden of proof remained as it was in 1945.⁷⁵ With the courts

⁶⁶ CONSTITUTION OF NIGERIA (1999), § 2(2).

⁶⁷ *Id.* at Third Schedule, Part I, Item 23.

⁶⁸ See A.E.W. PARK, *THE SOURCES OF NIGERIAN LAW* 88 (1963).

⁶⁹ Nazeem Goolam, *Reforming the Law of Evidence in Nigeria*, 44 J. AFR. L. 128, 128 (2000).

⁷⁰ Evidence Act (2011), § 131(1) (Nigeria).

⁷¹ See generally *Law Reform*, NIGERIAN L. REFORM COMMISSION, http://www.nlrc.com.ng/category.php?category_id=54 [<https://perma.cc/YVH6-RDEQ>] (last visited Mar. 12, 2020).

⁷² Goolam, *supra* note 69, at 129.

⁷³ See *id.* at 128.

⁷⁴ *Id.* at 128–29.

⁷⁵ Evidence Act (2011), §§ 131, 133; *cf.* Evidence Act (1945), § 5 (Nigeria).

hamstrung by an obsolete provision on an all-important aspect of the law of evidence, plaintiffs are naturally disadvantaged in discharging the burden of proof.⁷⁶ In the Nigerian case of *Ogiale v. Shell*,⁷⁷ the Court of Appeal, per Nsofor, J.C.A., reaffirmed the position of the law in regard to the person who bears the burden of proof in environmental litigation by stating that “he who asserts ought to prove his assertion and this by credible evidence,”⁷⁸ and “the claimant ought to prove his case relying on the strength of his case and not on the weakness of the defendant’s case.”⁷⁹ For reasons stated earlier, I argue that this is a real burden on the plaintiffs in environmental litigation.

III

THE NEED TO SHIFT THE BURDEN OF PROOF IN ENVIRONMENTAL LITIGATION IN NIGERIA

Indeed, and as observed by UNEP, the “oil industry has been a key sector of the Nigerian economy for over 50 years. But many Nigerians have paid a high price.”⁸⁰ I argue that the high price includes the weight of the burden of proof in environmental litigation that is placed on the plaintiffs.

There are several reasons that make this particular burden of proof especially onerous for the prospective plaintiff. First is the prevalence of poverty. The World Bank asserts that twelve percent of the world’s extremely poor are Nigerians (people surviving on less than \$1.90 USD a day).⁸¹ The cost of gathering evidence to successfully prosecute environmental litigation is huge and well beyond the reach of these ordinary people.⁸² Second, the difficulty of obtaining evidence needed to persuade the court to give judgment in favor of the plaintiff in environmental litigation—evidence that is sometimes within the custody of the defendant—exerts undue financial pressure on the plaintiffs. Third, there is an additional burden thrust on the plaintiff to prove causation (that the degradable act of the defendant resulted in

⁷⁶ Osipitan, *supra* note 65, at 114.

⁷⁷ Jędrzej George Frynas, *Legal Change in Africa: Evidence from Oil-Related Litigation in Nigeria*, 43 J. AFR. L. 121, 130 (1999) (citing *Ogiale v. Shell* [1997] 1 NWLR 148, 180 (Nigeria)).

⁷⁸ *Id.* at 130.

⁷⁹ *Id.* at 131.

⁸⁰ UNEP REPORT, *supra* note 4, at 7.

⁸¹ Roy Katayama & Divyanshi Wadhwa, *Half of the World’s Poor Live in Just 5 Countries*, WORLD BANK BLOGS: DATA BLOG (Jan. 9, 2019), <https://blogs.worldbank.org/opendata/half-world-s-poor-live-just-5-countries> [<https://perma.cc/M6DG-8J3J>].

⁸² See Osipitan, *supra* note 65, at 116.

environmental damage and the subsequent injury sustained by the plaintiff). With a lack of scientific consensus on causation, the plaintiff has an uphill task. Lastly, the need for Nigeria to harmonize its rules of evidence in line with the global trend of shifting the burden of proof from the plaintiffs to the defendants makes it imperative for Nigeria to amend its law in this regard. In the ensuing subsections, I will consider each of these challenges in more detail.

A. The Cost of Gathering Evidence

The cost of gathering evidence in environmental litigation is huge, and the high level of poverty not just in Ogoniland but in the entire Niger-Delta means that plaintiffs are constrained by a paucity of funds. This affects their ability to gather the evidence needed to successfully overcome the burden of proof in environmental litigation. Upon realizing this, UNEP made it clear that “key actors” should bear the cost of its assessment of Ogoniland.⁸³ This speaks volumes to the nexus between funds availability and quality evidence gathering. Considering the nature of environmental litigation, a scientific approach to gathering evidence is a must. For instance, with respect to contamination from hydrocarbons, UNEP opines that “the average human being would probably not notice the contamination in the top 1 metre of soil around the B600 sampling location.”⁸⁴ This creates the need for scientific analyses with expertise and equipment not available to the layman and at costs that are prohibitive to the impoverished Niger-Delta people.

Apart from the cost implication, the length of the evidence-gathering period is another factor that might work against plaintiffs. UNEP Assessment of Ogoniland spanned a period of fourteen months.⁸⁵ It is doubtful if there are persons or even communities in the Niger-Delta with the financial resources to sustain a similar operation. Yet UNEP deemed its report a baseline!⁸⁶ This indicates that the situation could actually be much worse than what was captured in the report, with the high likelihood of degenerating over time. Furthermore, the cost to gather evidence in terms of human and technological resources is beyond the reach of an average plaintiff. As revealed by the report, UNEP examined 200 sites, reviewed 122 kms of pipeline rights of way,

⁸³ UNEP REPORT, *supra* note 4, at 7.

⁸⁴ *Id.* at 121.

⁸⁵ *Id.* at 6.

⁸⁶ *Id.*

examined more than 5000 medical records, engaged over 23,000 people at community meetings, conducted 69 soil contaminations, analyzed 142 groundwater wells, and collected and analyzed soil extractions from 780 wells in the course of its assessment of Ogoniland.⁸⁷ In the area of expertise, it is doubtful if any community, let alone any one person, can afford to engage in anything near the level of expertise deployed by UNEP in Ogoniland. UNEP had to recruit a team of international experts in various disciplines including contaminated land, water, forestry, and public health. The team included senior UNEP managers, local experts, academics, and support teams for logistics, community liaison, and security.

As for facilities, it is unlikely that any plaintiff can afford to mobilize the resources that UNEP was able to deploy in Ogoniland in order to obtain evidence that can stand the crucible of an environmental litigation trial. For instance, to guarantee the quality of the test result,⁸⁸ all the samples collected by UNEP were not only collected in compliance with international best practices but they were also sent for analysis in accredited and certified ISO 17025 laboratories.⁸⁹ The laboratories used were Al Control Geochem, United Kingdom; ALS Scandinavia AG, Sweden; and Spiez Laboratory, Switzerland.⁹⁰ In addition, UNEP employed remote sensing extensively in its analyses, and it also made use of available cutting-edge rehabilitation mediation techniques.⁹¹ None of these evidence-gathering methods, including the cost of the specialized transportation of samples, are within the reach of an average plaintiff.

UNEP carried out its work in four areas: land, water, vegetation, and public health, with separate teams of both international and local experts.⁹² Again, it is doubtful that a single plaintiff or group of plaintiffs could afford this. For example, experts from the World Maritime University in Sweden headed the aquatic team, while an international expert from Bern University in Switzerland headed the vegetation team,⁹³ and an international expert from Boston University headed the public health team.⁹⁴ By far, the most problematic area for

⁸⁷ *Id.*

⁸⁸ *See id.* at 59.

⁸⁹ *Id.*

⁹⁰ *Id.* at 59.

⁹¹ *Id.* at 9.

⁹² *Id.* at 54.

⁹³ *Id.* at 55.

⁹⁴ *Id.*

UNEP was land assessment because UNEP had to engage the largest contingent of international experts for that team.⁹⁵

Apart from expertise, UNEP also had cutting-edge equipment at its disposal, which may not be within the reach of the poor litigants in the Niger-Delta. For instance, to determine the level of contamination of fish and shellfish by polycyclic aromatic hydrocarbons and chlorinated pesticides, UNEP could afford to use “a process of chemical extraction, evaporation and measurement through gas chromatograph equipped [sic] with a mass spectroscopy (GC-MS).”⁹⁶ To analyze hydrocarbons, first UNEP had to solvent-extract a sample and thereafter use a gas chromatograph-flame ionization detector (GC-FID) to analyze it.⁹⁷ To determine metallic contents in the sample, a “high-resolution inductively coupled plasma mass spectroscopy (ICP-MS)” was used for the analysis.⁹⁸ On air analysis, UNEP took the unusual step to examine particular volatile organic compounds (VOCs) “rather than total VOCs because the toxicity of total VOCs depends on the composition of the mixture.”⁹⁹ However, this further put a strain on UNEP’s resources as “22 VOC samples from oil spill areas, 20 VOC samples from nearby communities, 2 VOC samples from reference locations and 23 respirable particulate samples from oil spill areas and nearby communities”¹⁰⁰ had to be collected and analyzed via U.S. EPA Method TO-17,¹⁰¹ “which involves sampling with thermal desorption tubes and laboratory analysis with gas chromatography/mass spectroscopy.”¹⁰²

The UNEP used existing satellites to capture imagery for navigation purposes, scouting exercises, land mapping, change detection, and to make note of oil spills.¹⁰³ Apart from the satellites, GIS mapping technique and cartography were extensively used to generate about 200 maps.¹⁰⁴ Through these processes, cartographic atlases were produced and constantly updated.¹⁰⁵ The use of GPS proved very handy as GPS-

⁹⁵ *See id.* at 54.

⁹⁶ *Id.* at 71.

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.* at 76.

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 78.

¹⁰² *Id.*

¹⁰³ *Id.* at 79.

¹⁰⁴ *Id.* at 80.

¹⁰⁵ *Id.*

fitted cameras were used to take well over 10,000 geo-indexed pictures. These pictures became very useful during scouting and reconnaissance missions, whether on land, water, or air, to geo-trace the information photographed in the field.¹⁰⁶ GPS-fitted laptops were also on hand and served three important purposes—the verification of spills reported by Shell, the documentation of spills reported by the communities, and the documentation of spills discovered by UNEP.¹⁰⁷

To determine natural radioactivity in samples, radionuclide concentration of samples have to be known, and to unearth this, UNEP employed high-purity Germanium (HPGe) CANBERRA detectors.¹⁰⁸ Also, to find out “the existence of medium and long-living radioisotopes” and nonradioactive materials, UNEP used a Finnigan Element XR high-resolution (sector field) mass spectrometer, which subjected samples to an inductively coupled plasma mass spectrometry (ICP-MS).¹⁰⁹

Lastly, to determine and monitor pH levels, temperature, and the level of conductivity, UNEP used a Hatch Multimeter.¹¹⁰ To monitor and measure air temperature, humidity, and fractions of particles in air—including inhalable fraction (PM₁₀), respiratory fraction (PM_{2.5}), and ultrafine fraction (PM₁) up to less than one micron—UNEP used a portable Thermo Scientific Particulate Monitor DataRAM 4.¹¹¹ To identify naturally occurring radioactive materials, UNEP used Automess 6150 AD 6/H calibrated dose-rate meter equipment alongside an Automess alpha-beta-gamma probe 6150 AD-17.¹¹²

However, despite the resources at UNEP’s disposal, UNEP encountered logistical challenges.¹¹³ This highlights the fate that awaits the poor and illiterate population of the Niger-Delta who are being assaulted daily with environmental degradation challenges. One of the problems that confronted UNEP was a lack of data to work with.¹¹⁴ When data existed at all, the information was grossly outdated; for instance, the only images of Ogoniland on the Landsat archive were from 1976, while the most recent image from Advanced Spaceborne

¹⁰⁶ *Id.* at 84.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at 83.

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *See id.* at 6.

¹¹⁴ *Id.* at 79.

Thermal Emission and Reflection Radiometer dates back to 2007. Even the most recent image was considered old for a project carried out in 2011, as further research revealed major changes in the mangroves adjoining Ogoniland since January 2009.¹¹⁵ Apart from this, UNEP was hamstrung by a scarcity of resources; for instance, to overcome the lack of recent images of Ogoniland, UNEP decided to develop images of its own through the deployment of satellite technology, but that effort was deterred by the cost. Consequently, only a part of Ogoniland was ultimately pictured.¹¹⁶ UNEP, perhaps with a tinge of exhaustion despite the resources at its disposal, confessed that “the two year study of the environmental and public health impacts of oil contamination in Ogoniland is one of the most complex on the ground assessments ever undertaken by UNEP.”¹¹⁷

From the above, it can be deduced that because of the resources needed to gather credible evidence to successfully prosecute an environmental litigation suit, the poor plaintiffs in Ogoniland and, by extension, the Niger-Delta, will always come short of meeting their burden of proof. To mitigate these challenges, the burden of proof should shift from the plaintiffs to the defendants. If the burden shifted, the defendants would not be limited by a lack of financial resources, a lack of information, a lack of expertise needed to gather evidence, or even the obscurity of relevant evidence. This is in line with Camporesi and Knuckles’s argument that in the industrial sector “where the very activities that drive profit can cause environmental harm, only the private sector has the capacity, information, and resources necessary to conduct adequate testing required to prove that their actions are not causing environmental damage.”¹¹⁸

In *Ogiale v. Shell*,¹¹⁹ where the plaintiffs instituted an environmental litigation suit against Shell, the plaintiffs lost because they could not hire an expert witness in the area of heat and radiation despite calling a soil scientist and an agronomist as witnesses.¹²⁰ Commenting on the Nigerian situation, Kayode Oyende opines that “evidence of experts is

¹¹⁵ *Id.* at 80.

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 8.

¹¹⁸ Silvia Camporesi & James A. Knuckles, *Shifting the Burden of Proof in Doping: Lessons from Environmental Sustainability Applied to High-Performance Sport*, 15 REFLECTIVE PRAC. 106, 111 (2014).

¹¹⁹ Frynas, *supra* note 77, at 130 (discussing *Ogiale v. Shell* [1997] 1 NWLR 148 (Nigeria)).

¹²⁰ *Id.* at 131.

not easy to come by and they are certainly not the prerogatives of rural farmers and villagers.”¹²¹ Frynas further argues that what typically confronts plaintiffs is the lack of finances to fund the scientific tests to determine the adverse impact of oil operations; such tests require considerable financial resources.¹²² And as shown in the UNEP Report, high-level expertise and facilities are needed to gather evidence necessary to successfully prosecute claims in environmental litigation.¹²³ For example, because UNEP conducted aerial reconnaissance missions in Ogoniland, its experts were able to spot oil pollution that could not be detected from the ground.¹²⁴ The story may have been different if UNEP did not have the expertise and resources to conduct aerial reconnaissance missions. Also, it was not until UNEP employed aerial observations via helicopter in Ogoniland that it discovered the “extensive damage to the mangroves in the Ogoni study area and it was clear that the geographical extent was so wide that a combination of approaches would be needed to assess the overall condition of mangroves.”¹²⁵ It was these observations—which were captured and preserved through the means of aerial photography with the aid of high-resolution satellite images—that revealed the damage to both water edges and landward areas.¹²⁶

In addition to the above, the defendants have the resources to hire the best legal minds to defend their cases, while the plaintiffs are left to struggle to raise a legal team within their means.¹²⁷ The defendants’ lawyers can exploit the technicalities in the law to delay the matter in court hoping that the plaintiffs will tire out and run out of steam, and the defendants have a seemingly endless source of money to fund the process.¹²⁸

I argue that the expertise and resources needed are well beyond the reach of an average plaintiff in Nigeria. These are some of the hurdles the plaintiffs face. On the strength of these arguments and UNEP’s firsthand experiences in Ogoniland, it has become imperative for the burden of proof to shift from the plaintiffs to the defendants.

¹²¹ KAYODE OYENDE, OIL POLLUTION LAW AND GOVERNANCE IN NIGERIA 246 (2017) (quoting *Ikpede v. Shell* [1973] MWSJ 61 (Nigeria)).

¹²² Frynas, *supra* note 77, at 131.

¹²³ See UNEP REPORT, *supra* note 4, at 6–7.

¹²⁴ *Id.* at 9.

¹²⁵ *Id.* at 72.

¹²⁶ *Id.*

¹²⁷ OYENDE, *supra* note 121, at 242.

¹²⁸ *Id.*

B. The Nature of Evidence

Environmental litigation covers perhaps one of the most contested issues plaguing the world at the moment and, to add to this, there is the issue of lack of unanimity from experts in these areas. For instance, some segments of the scientific community have dismissed climate change as a hoax. Therefore, to stand any chance in environmental litigation, evidence must be as watertight as possible.

In *Ogiale v. Shell*,¹²⁹ the plaintiffs lost partly because they could not furnish the court with the requisite scientific evidence to discharge their burden of proof with the court, reducing the totality of the evidence of their witnesses to sheer “ocular inspection and comparism [sic].”¹³⁰ The plaintiffs’ problem is further compounded, generally, where the possibility of more than one cause of injury exists.¹³¹ The plaintiffs must prove the particular cause of their own injuries and establish a causal link to the defendant’s actions.¹³²

This problem is exacerbated as the plaintiffs are equally expected to prove special damages—each on their own terms.¹³³ In the case of *Shell v. Otoko*, where the plaintiffs sued Shell and claimed damages for an oil spill, the court refused to give judgment to the plaintiffs on the grounds that, among other reasons, the plaintiffs were not able to prove the various special damages that they claimed, notwithstanding the fact that the plaintiffs had called experts as witnesses.¹³⁴ The court noted that plaintiffs’ fifth witness, who was an expert valuer, did not have the requisite expertise to make his opinion on the chemical composition of oil and its effect on nets relevant and reliable for the court.¹³⁵ Commenting on the case, Frynas is of the view that for satisfactory proof of all special damages claimed, the plaintiffs would have needed separate experts in juju worship, chemical engineering, land management, and agriculture, and that the financial cost of hiring and funding the experts would have been astronomical.¹³⁶

¹²⁹ Frynas, *supra* note 77, at 130.

¹³⁰ *Id.* (quoting *Ogiale v. Shell* [1997] 1 NWLR 148, 182 (Nigeria)).

¹³¹ *Id.*

¹³² *Id.*

¹³³ *See* Osipitan, *supra* note 65, at 121. Special damages are damages an individual has suffered due to circumstances peculiar to that individual. It should be different and beyond the injuries that are suffered by other members of the public. *See id.*

¹³⁴ Frynas, *supra* note 77, at 127 (citing *Shell vs. Otoko* [1990] 6 NWLR 693 (Nigeria)).

¹³⁵ *Id.*

¹³⁶ *Id.*

In the case of *Ikpede v. Shell*,¹³⁷ the court held that the damages were special damages and must be strictly proved.¹³⁸ Caroline Forster, using the difficult-to-obtain evidence in the *Iran-United States Claims Tribunal* as the basis, admits that, on this score, there is the need to revisit the burden of proof usually placed on the plaintiffs and suggests that the standard of proof needs to be lowered.¹³⁹ I am, however, of the view that lowering the burden may introduce a degree of subjectivity into environmental litigation that makes rational assessment of evidence impossible. The way out may well lie in shifting the burden of proof from the plaintiffs to the defendants, as the defendant has the resources—finances, equipment, contacts, reach, and expertise—to gather evidence. This will not only preserve the objective burden of proof benchmark; it will guarantee the fairness preached by Forster.

C. Defendants' Control and Custody of Evidence

Another reason why the burden of proof should shift is that evidence is almost always either in the custody of or at the disposal of the defendants. Therefore, the ease with which the defendants can gather these pieces of evidence compared to the plaintiffs can reduce the logistical and financial hurdles to their procurement. On this, Forster advocates an adjustment to the rule of evidence to “help ensure *fairness* . . . where important evidence lies only in the hands of one of the parties, or where a difficult negative proposition may require proving.”¹⁴⁰

Sometimes evidence does not even exist to the knowledge or benefit of the plaintiffs. In Ogoniland for instance, UNEP confesses that “there may still be contaminated areas in Ogoniland about which there is currently no intelligence available to UNEP on which to base further surveys.”¹⁴¹ UNEP also found that there is no record of air quality in Nigeria.¹⁴² Furthermore, UNEP discovered that there was no record of agricultural productivity, species, area of existence, or any data in relation to forest trees.¹⁴³ Where evidence does exist, it is manifestly

¹³⁷ OYENDE, *supra* note 121, at 230 (citing *Ikpede v. Shell* [1973] MWSJ 61 (Nigeria)).

¹³⁸ *Id.* at 231.

¹³⁹ Caroline E. Forster, *International Adjudication – Standard of Review and Burden of Proof: Australia-Apples and Whaling in the Antarctic*, 21 REV. EUR. COMMUNITY & INT'L ENVTL. L. 80, 86 (2012).

¹⁴⁰ *Id.* (alteration in original).

¹⁴¹ UNEP REPORT, *supra* note 4, at 93.

¹⁴² *Id.* at 88.

¹⁴³ *Id.* at 71.

unreliable and cannot satisfy the threshold of admissibility, let alone stand the crucible of cross examination. For instance, in Ogoniland, UNEP found that there was neither “useful, recent [or] robust information covering Ogoniland,” nor any “reliable data about the quantity of oil spilled in the region.”¹⁴⁴ Consequently, UNEP had to presume some baseline information from general scientific knowledge established elsewhere and extrapolate assumptions from those established baseline conditions.¹⁴⁵ Even with this technique, considering that no two natural phenomena can ever truly be the same, we may never know exactly how much damage has been done to the region.

There are even cases where defendants willfully destroy evidence to conceal their culpability in environmental degradation. And it makes no sense to require plaintiffs to discharge the burden of proof in such cases. Halliburton destroyed information regarding its role in the Gulf of Mexico’s oil spill for which the U.S. Department of Justice slammed its heaviest fine conceivable on the company.¹⁴⁶ Camporesi opines that companies are as secretive as they can be about information, and that it is not uncommon for them to either withhold relevant information or create misleading information to hamper the regulatory agency’s ability to take regulatory action.¹⁴⁷

The concealment of information by defendants is acute in transboundary disposal of waste in developing countries.¹⁴⁸ For instance, in 1988, Karin B, a ship originating from Italy, emptied 8000 drums of toxic waste in Nigeria.¹⁴⁹ Previously, in 1987, two Italian businessmen, Gianfranco Raffaeli and Renato Pent, had approached their Nigerian counterpart—Sunday Nana—with a proposal that, for a monthly fee of \$100, the latter would warehouse 18,000 drums of dangerous waste to be shipped from Italy, which the latter accepted.¹⁵⁰ Consequently, toxic waste was shipped from Italy to Koko in the Niger-

¹⁴⁴ *Id.* at 88.

¹⁴⁵ *Id.*

¹⁴⁶ Camporesi & Knuckles, *supra* note 118, at 112.

¹⁴⁷ *Id.* at 111.

¹⁴⁸ See Robert V. Percival, *Global Law and the Environment*, 86 WASH. L. REV. 579, 621 (2011).

¹⁴⁹ *Id.*

¹⁵⁰ R. Vivek Kumar, *Tale of Three Villages*, VILLAGE 890 (Oct. 29, 2012), <http://village890.blogspot.ca/2012/10/tale-of-three-villages-koko-village.html> [<https://perma.cc/H8KZ-2TX9>].

Delta, Nigeria.¹⁵¹ Although the operation was spotted and the waste was eventually evacuated and returned to Italy, the effect had already set in.¹⁵² Kumar would describe this effect as unprecedented: according to him, “We have never seen deaths like that before. Lots of our children are sick.”¹⁵³

The furor that this incident generated became the catalyst for the negotiation and subsequent creation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, which regulates international shipment of hazardous waste.¹⁵⁴ But Tony Puthucherril is of the view that the Basel Convention actually legitimized trade in hazardous waste—capitalizing on the precarious economic situation in developing countries to engage in trade of waste.¹⁵⁵ There is merit in this argument, as evidenced by subsequent events, culminating in the negotiation of the Bamako Convention by African countries, which places an outright ban on dumping of hazardous wastes in Africa.¹⁵⁶ Despite these efforts, the dumping of waste is still very much a problem today. For instance, in 2006, a ship, owned and operated by Trafigura, a British Company, after a failed attempt to dispose of its toxic cargo in the Netherlands, was finally able to discharge the waste in Côte d’Ivoire.¹⁵⁷ When this came to light, Trafigura agreed to settle the matter with the Ivorian government and agreed to the sum of \$198 million for the cost of clean-up.¹⁵⁸ Thirty-one thousand Ivoirians who suffered the harmful effect of the waste proceeded against the company in the U.K., but, as usual, the company denied liability and chose to blame an independent contractor for the illegal dumping of waste.¹⁵⁹ It also promised to sue media houses who were sympathetic toward the claimants, but this threat did not deter *The Guardian* from releasing emails that exposed Trafigura’s efforts to cover up its complicity in illegal dumping. After this exposure, Trafigura quickly settled the matter for £30 million.¹⁶⁰

¹⁵¹ *Id.*

¹⁵² Percival, *supra* note 148, at 621.

¹⁵³ Kumar, *supra* note 150.

¹⁵⁴ Percival, *supra* note 148, at 621–22.

¹⁵⁵ Tony George Puthucherril, *Two Decades of the Basel Convention*, in ROUTLEDGE HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 295, 303 (Shawkat Alam et al. eds., 2013).

¹⁵⁶ Michael Kidd, *Environmental Law in Africa*, in ROUTLEDGE HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 509, 516 (Shawkat Alam et al. eds., 2013).

¹⁵⁷ Percival, *supra* note 148, at 622.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

Further evidence revealed Trafigura's underhanded dealings throughout the entire affair, including its attempt to undermine regulations on disposing of hazardous waste by not disclosing that the waste was toxic. For these actions, criminal proceedings against Trafigura were commenced in the Netherlands.¹⁶¹ The captain of the ship and other employees were not spared, as they were also criminally prosecuted for their complicities and convicted of concealment and forgery.¹⁶² In addition, the company was fined €1 million for its role in the incident.¹⁶³

If such concealments can happen, or even be conceivable in the Netherlands—a developed country with stringent laws and meticulous law enforcement—one can begin to imagine what happens in developing countries.

Shipping companies are in the habit of concealing the toxicity of their cargo from various national authorities in an effort to dispose of them without detection. An example is the incident involving a ship named “Khian Sea.” In 1986, twenty-eight million pounds of waste incinerator ash were shipped by the Khian Sea from Philadelphia to the Bahamas, but the ship was not allowed to berth.¹⁶⁴ The ship then tried its luck in six other countries with no success, as the deadly cargo was roundly rejected.¹⁶⁵ Unfortunately, Haiti was not that lucky. In 1988, about three thousand tons of the waste were dumped in the country before the ship was spotted and chased away.¹⁶⁶ The ship then attempted to dump the rest of its cargo in five different destinations but was turned away at every stop. Finally, it was able to empty the waste into the Indian Ocean after the ship had changed its name twice, first to Felicia and later to Pelacano, to move undetected.¹⁶⁷ To further conceal the ship's true identity, the ship's ownership and registration were also changed twice, from Liberia to the Bahamas, and then from the Bahamas to Honduras.¹⁶⁸ This was not a one-off operation but a carefully scripted plan to turn developing countries into dumping

¹⁶¹ *Id.* at 623.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ Puthucherril, *supra* note 155, at 296.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*; Percival, *supra* note 148, at 621.

¹⁶⁷ Puthucherril, *supra* note 155, at 296.

¹⁶⁸ *Id.*

grounds for waste rejected by the First World.¹⁶⁹ I am of the view that asking the plaintiff in these scenarios to discharge the burden of proof amounts to putting them through hardships in addition to the harsh conditions already foisted on them by the spills and degradation of their environments and livelihoods.

In *Dow Chemical Co. v. Alfaro*, a group of Costa Rican farmers (plaintiffs) sued Dow Chemical Company (defendant) in Texas, alleging that the defendant's production and distribution of 1,2-Dibromo-3-chloropropane pesticide (DBCP) had caused them to become infertile.¹⁷⁰ The defendant was aware that the U.S. EPA had banned the use of DBCP in the United States as a result of its "reproductive toxicity," yet the company was still producing the chemical for export to foreign markets.¹⁷¹ Even though the company was adamant in its denial of the claim, the company reached an out of court settlement to the tune of \$20 million with the plaintiffs before the suit could proceed to trial.¹⁷² Percival remarked that litigation like this "illustrates both the power and shortcomings of transnational tort litigation."¹⁷³

This tactic of concealment is also employed in the Niger-Delta. As such, it was not a surprise when UNEP discovered in Ogoniland that ten of the fifteen sites that Shell had insisted were completely remediated were in fact still heavily polluted at levels exceeding both Shell's and the government's benchmark. Unfortunately, the pollution from eight of the sites had percolated into groundwater sources and contaminated them.¹⁷⁴ In the above scenarios, it would not be fair to expect the plaintiffs to gather evidence to prove these facts, evidence which is not only within the knowledge of defendants but also in their possession.

In addition, there is evidence that these companies were trying to use unnecessary technicalities of the law and procedures against litigants. The case of *Wiwa v. Shell*¹⁷⁵ highlights some of the tactics often employed against the litigants, who are no match for these behemoths. In that case, the plaintiff sued Shell for its complicity in the killing of

¹⁶⁹ Percival, *supra* note 148, at 621.

¹⁷⁰ *Dow Chemical Co. v. Castro Alfaro*, 786 S.W.2d 674, 675 (Tex. 1990).

¹⁷¹ Percival, *supra* note 148, at 618.

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ UNEP REPORT, *supra* note 4, at 12.

¹⁷⁵ See, e.g., *Wiwa v. Royal Dutch Petroleum Co.*, 226 F.3d 88 (2d Cir. 2000); *Okpabi v. Royal Dutch Shell PLC* [2017] EWHC (Civ) 89 (Eng.).

Saro-Wiwa and eight others, among other claims.¹⁷⁶ The case dragged on for thirteen years on preliminaries, and when the coast was finally clear to proceed to trial, Shell suddenly agreed for an out of court settlement on the condition that it would not admit liability. The case was eventually settled with Shell paying \$15.5 million to the plaintiffs.¹⁷⁷ Considering the state of poverty that ravages the Niger-Delta, how many plaintiffs can afford to stay in court for thirteen years fighting over preliminaries?

Another tactic employed by the defendants is to dispute the amount of spill released into the Niger-Delta environment, which has a bearing on the litigation process. In 2008, oil from Shell's facility spilled into 35 villages in Bodo, Rivers State, affecting 49,000 inhabitants.¹⁷⁸ Amnesty International, an international watchdog for human rights, reported that about 240,000 barrels were spilled.¹⁷⁹ Shell admitted to spilling only 4,000 barrels and disputed the rest.¹⁸⁰ A U.S. company estimated the volume between 103,000 to 311,000 barrels.¹⁸¹ Shell's stance hinged on the understanding that without an agreement on the volume of the spill, the amount of compensation (which is a matter of evidence) cannot be determined by the court.¹⁸² Throughout the litigation period, Shell refused to clean up the community—even several years after the occurrence of the spill—claiming that “the legal dispute is hampering its efforts to clean up the oil pollution.”¹⁸³ Shell was further irked that the plaintiffs went to the U.K. to commence legal proceedings instead of Nigeria where “there is an established practice under Nigerian law to settle such claims.”¹⁸⁴ Over the course of the trial, Shell eventually admitted an awareness of the poor state of the oil pipelines in the Bodo community from which the oil spilled. Shell also admitted that their estimates on the amount of oil spilled were incorrect and admitted their misjudgment regarding the total volume of oil spilled.¹⁸⁵ The matter was later settled out of court with Shell paying

¹⁷⁶ Ako, *supra* note 23, at 632.

¹⁷⁷ *Id.* at 630.

¹⁷⁸ OYENDE, *supra* note 121, at 245.

¹⁷⁹ *Id.* at 246.

¹⁸⁰ *Id.* at 245–46.

¹⁸¹ *Id.* at 246.

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ Ako, *supra* note 23, at 630.

compensation amounting to \$84 million to the plaintiffs.¹⁸⁶ Senewo argues that the out of court settlement is an admission of liability by Shell of its misconduct that degraded the Niger-Delta environment.¹⁸⁷ Shell's effrontery stemmed from the fact that the Nigerian government and courts pander to the International Oil Corporations and treat them with kid gloves.¹⁸⁸ Oyende terms this unnecessary judicial deferment "paternalistic judicial attitude."¹⁸⁹

What this indicates is that a multifaceted solution is needed to tackle environmental degradation. A litigation-based solution can become an option, but only when the onus shifts to the culprit instead of the poor victims. Otherwise, asking the plaintiffs to bear the burden of proof instead of the defendants is akin to giving the defendants a pat on the back for their role in degrading the environment. Shifting the burden of proof to the defendants may serve as a deterrent against these underhanded dealings that are destroying the environment.

D. The Problem of Proving a Causal Link

Causation has been described by Dunec as "a chief battleground in toxic tort cases."¹⁹⁰ To prove causation, the plaintiffs have to satisfy two conditions—that the act of the defendants caused environmental damage and that this environmental damage has resulted in injury to the plaintiffs.¹⁹¹ This is a significant burden and can be insurmountable in some cases,¹⁹² especially when it involves concepts about which there is limited knowledge. For instance, how do plaintiffs prove causation with respect to climate change?¹⁹³ Harlow and Spencer opine that apart from scientists, only a handful of people "even begin to understand how complex earth's climate is and consequently how difficult it is to prove . . . what causes long term changes in our climate,

¹⁸⁶ *Id.*

¹⁸⁷ Senewo, *supra* note 9, at 668.

¹⁸⁸ See OYENDE, *supra* note 121, at 240.

¹⁸⁹ *Id.*

¹⁹⁰ JoAnne L. Dunec, Book Review, 28 NAT. RESOURCES & ENV'T 60 (2013) (reviewing ARTHUR F. FORESTER & CHRISTINE GREGORSKI ROLPH, TOXIC TORT LITIGATION (2d ed. 2013)).

¹⁹¹ Brooks E. Harlow & Roy W. Spencer, *An Inconvenient Burden of Proof? CO₂ Nuisance Plaintiffs Will Face Challenges in Meeting the Daubert Standard*, 32 ENERGY L.J. 459, 462 (2011).

¹⁹² Dunec, *supra* note 190, at 60.

¹⁹³ Harlow & Spencer, *supra* note 191, at 462.

let alone that climate change is the cause of a specific weather event or series of events.”¹⁹⁴

Perhaps one scenario that vividly captures the complexity of resolving causation in environmental litigation is the now famous “Kishon Affairs.”¹⁹⁵ In 2000, members of the elite arm of the Israeli navy stirred the hornet’s nest with their allegation that there was a causal link between the cancer they suffered and the severely polluted Kishon River where they conducted training during their active services.¹⁹⁶ But the Israeli Ministry of Defense disputed this claim, opining that there was no causal link between the cancer and the training in the river.¹⁹⁷ At the time of this conflict, the Kishon River was heavily polluted by fertilizers and pesticides from the richly cultivated Jezreel Valley, and it also served as the receptor of effluents from refineries, petrochemical industries, and shipyards.¹⁹⁸ In the 1970s, a report from public health officials indicated that the Kishon River had been so gravely contaminated with industrial wastes that all signs of life were eradicated.¹⁹⁹ Another report from the Balasha-Jalon Infrastructure Systems “strongly warned against any direct human contact with its water.”²⁰⁰

To resolve the controversy, a three-man military commission was empaneled to find out if there were toxins in the Kishon River; if there were toxins present, whether the toxins posed any health risk to people who undertook training in the river; whether there was a nexus between the surging cancer cases and the river; and whether the military was liable.²⁰¹ After almost three years of intensive work, the commission submitted its report.²⁰² The report was itself as controversial as the surrounding circumstances as science and law followed different paths. While two scientists came to the conclusion that there was no proof “that the pollution in the Kishon River caused a statistically-significant increase of cancer among the divers,”²⁰³ the chairman of the

¹⁹⁴ *Id.*

¹⁹⁵ Tal Golan, *The Kishon Affair: Science, Law, and the Politics of Causation*, 23 *SCI. CONTEXT* 535, 535 (2010).

¹⁹⁶ *Id.* at 539.

¹⁹⁷ *Id.* at 563.

¹⁹⁸ *Id.* at 536.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.* at 452–53.

²⁰² *Id.* at 561.

²⁰³ *Id.* at 562 (quoting Shamgar Kishon Commission Final Report 608 (April 2003)).

commission came to a minority decision by acknowledging that other surrounding pieces of evidence demonstrated that there was a causal link between the constant training in the river and contracting cancer.²⁰⁴ In arriving at this conclusion, the chairman had not required the complainants to prove the legal burden.²⁰⁵ Relying on precedents, the chairman demonstrated that even in civil tort, where the defendant acted in an obviously tortious manner but the plaintiff had no means of identifying the specific cause of injury, courts would ease the plaintiff's burden of proof by passing some of it on to the defendant.²⁰⁶ In reality, the report did not only reveal the conflict between science and law in addressing growing concerns with toxic exposure but it also presented "a unified consensual solution to the twin-questions of causation and responsibility."²⁰⁷ Surprisingly, the military sided with the minority report, which it adopted and implemented wholeheartedly.²⁰⁸

In contrast, Nigerian courts have left the onerous burden on the already burdened plaintiff. In the case of *Shell v. Otoko*,²⁰⁹ the plaintiffs instituted the suit against Shell, claiming damage for oil spills from the defendant's facility.²¹⁰ As part of the evidence, the plaintiffs submitted a report of the sediment and water samples to prove their case, but the court declined to give them judgment on the grounds, among others, that the plaintiffs could not prove causation.²¹¹ In *Ogiale v. Shell*,²¹² the plaintiffs lost on the grounds, among others, that they could not "prove the causation between oil operations and reduced soil fertility,"²¹³ despite calling experts in the fields of soil science and agronomy as witnesses. The court held that "it is often not entirely clear whether soil degradation is the result of oil operations or other factors such as intensive farming."²¹⁴

The plaintiffs' plight is further exacerbated where there are multiple sources of pollution and the plaintiffs are expected to prove with specificity which of the defendants caused the pollution.²¹⁵ Osipitan

²⁰⁴ *Id.*

²⁰⁵ *Id.* at 554.

²⁰⁶ *Id.* at 560.

²⁰⁷ *Id.* at 562.

²⁰⁸ *Id.* at 563.

²⁰⁹ Frynas, *supra* note 77, at 127 (citing *Shell vs. Otoko* [1990] 6 NWLR 693 (Nigeria)).

²¹⁰ *Id.*

²¹¹ *Id.* at 131.

²¹² *Id.* at 130 (citing *Ogiale v. Shell* [1997] 1 NWLR 148, 180 (Nigeria)).

²¹³ *Id.*

²¹⁴ *Id.* at 131.

²¹⁵ Osipitan, *supra* note 65, at 119.

argues that it is unfair to ask the plaintiffs to discharge the burden of proof in this circumstance.²¹⁶

Even though Harlow credits science as the custodian of knowledge in these areas, he also admits that there are situations where science is ill-equipped to prove the causal link between the defendants' actions and the plaintiffs' injury.²¹⁷ He opines that "[t]wo scientists can examine the same data and come to [conflicting and contradictory] conclusions about what the data mean in terms of cause and effect."²¹⁸ Lynda Collins blames the difficulty of proving causation on the scarcity of data about the safety of industrial chemicals.²¹⁹ As a result, a scientific or legal standard of proof is often unattainable when trying to prove cause of illness or death.²²⁰ She concludes that this not only leads to a miscarriage of justice but encourages the defendants to continue their assault on the environment.²²¹ According to Collins, "When scientific uncertainty precludes a finding of liability, the result is under-deterrence of chemical wrongdoing and ongoing violations of human rights."²²²

On this basis, I argue that the burden of proof ought to shift to the defendants instead of the plaintiffs. The evidence sought is in the knowledge and custody of defendants who have both the resources and the experts to conduct scientific tests. The difficulty of establishing scientific facts in a legal setting makes the establishment of a causal link the subject of a negative burden. Once the plaintiff establishes harm that is linked to some activity of the defendant, it should be up to the defendant to extricate himself from liability by establishing that his activity or omission did not cause the harm complained about or any harm to the plaintiff.

²¹⁶ *Id.*

²¹⁷ Harlow & Spencer, *supra* note 191, at 476–78.

²¹⁸ *Id.* at 477.

²¹⁹ Lynda Collins, *The United Nations, Human Rights and the Environment*, in RESEARCH HANDBOOK ON HUMAN RIGHTS AND THE ENVIRONMENT 219, 240 (Anna Grear & Louis Kotze eds., 2015).

²²⁰ *Id.*

²²¹ *Id.*

²²² *Id.*

IV
NIGERIA MUST ALIGN ITS LAW WITH THE CURRENT TREND
OF SHIFTING THE BURDEN OF PROOF FROM THE PLAINTIFF
TO THE DEFENDANT

The world is gradually moving away from the standard of the plaintiffs bearing the burden of proof in environmental litigation, and I argue that Nigeria should do the same by reversing the burden of proof from plaintiffs to the defendants. At the international level, Camporesi and Knuckles trace this shift to both Principle 15 of the United Nations Conference on Environment and Development, 1992 (Rio Declaration) and Principle 3 of Lisbon Principles of Sustainable Governance, 1997 (the Lisbon Principles).²²³ Principle 3 of the Lisbon Principles provides that, in the face of uncertainty about environmental impacts, “[t]he burden of proof should shift to those whose activities potentially damage the environment.”²²⁴

Within national boundaries and jurisdictions, the United States has taken the gauntlet. In its food industry, there has been a shift of responsibility from the regulator to the industry players who are now required to prove that each imported item is safe and conforms to the FDA’s standards.²²⁵ This approach has also been extended to the chemical industry where the regulator—the EPA—now requires that chemical companies prove the safety of their chemicals, rather than requiring the regulator to test each chemical for safety or otherwise.²²⁶

In Israel, as shown in the Kishon River case above, the courts have developed a body of precedents in which the burden of proof is on the defendants in injurious claims involving military personnel.²²⁷ The only duty placed on the plaintiffs by the courts is to establish a probable nexus between the injury and duty. As soon as the plaintiffs are able to do this, the burden of proof then shifts to the military to rebut.²²⁸ This attitude is extended to all tortious liability cases.²²⁹

Ecuador has taken the notch higher by constitutionalizing the shift in the burden of proof from the plaintiffs to the defendants in Section 397(1) of the 2008 Constitution by providing that, in issues of

²²³ Camporesi & Knuckles, *supra* note 118, at 110.

²²⁴ Costanza et al., *supra* note 5.

²²⁵ Camporesi & Knuckles, *supra* note 118, at 112.

²²⁶ *Id.*

²²⁷ Golan, *supra* note 195, at 560.

²²⁸ *Id.*

²²⁹ *Id.*

environmental sustainability, “[t]he burden of proof regarding the absence of potential or real danger shall lie with the operator of the activity or the defendant.”²³⁰ Also, courts and regulators are mandated to resolve uncertainties by interpreting environmental laws in favor of the environment.²³¹ Constitutional requirements have preeminence over other legislation. Given the rigorous process required to amend the constitution, constitutionalizing this shift guarantees that any changes to the provision will receive widespread attention and deliberations from all sectors of the society. In this regard, constitutionalizing trumps nonconstitutional legislative processes and guarantees progress, acting as a bulwark against rollbacks and regressions.²³² Nigeria should aim to meet global benchmarks by establishing these constitutional strongholds for environmental protection.

CONCLUSION

The need for the burden of proof to shift in environmental litigation in Nigeria has become an imperative. As shown in the UNEP Report and also argued by Camporesi and Knuckles, in the extractive industry, “where the very activities that drive profit can cause environmental harm, only the private sector has the capacity, information, and resources necessary to conduct adequate testing required to prove that their actions are not causing environmental damage.”²³³

Furthermore, these potential defendant companies employ underhanded tactics to deceive regulators and potential plaintiffs as they deliberately withhold, obfuscate, and create misleading information. Sometimes, the defendants are in collusion with the regulators who may be more interested in immediate financial gains either for private individuals, the regulatory agency, or the nation. It is only fair that defendants are made to show that their conduct is justified.

Additionally, proving causation can be difficult as nothing can be guaranteed in the realm of science where yesterday’s food has become

²³⁰ ECUADOR CONST. § 397(1) (2008).

²³¹ David R. Boyd, *Constitutions, Human Rights, and the Environment: National Approaches*, in RESEARCH HANDBOOK ON HUMAN RIGHTS AND THE ENVIRONMENT 170, 182 (Anna Grear & Louis J. Kotzé eds., 2015).

²³² Lynda M. Collins & David R. Boyd, *Non-Regression and the Charter Right to a Healthy Environment*, 29 J. ENVTL. L. & PRAC. 285, 293 (2016).

²³³ Camporesi & Knuckles, *supra* note 118, at 111.

today's poison. This happens because scientific theories are validated based on standards that combine their ability to explain phenomena and some subjective conformity to the scientist's worldview, so that future experimentation can totally overturn previously validated scientific theories.²³⁴ The complexity of environmental systems with myriads of forces, processes, and interactions dramatically escalates these uncertainties and difficulties.²³⁵ For this reason, Harlow opines that it is difficult for plaintiffs to successfully discharge the burden of proof in environmental litigation.²³⁶ Golan adds, "The courts' insistence on concrete proof and the difficulties for science to deliver it turned causation into a central problem for the thriving late-modern genus of toxic tort litigation."²³⁷ Examining evidence generally and not from the causative point of view, Frynas argues that in Nigerian environmental litigation, a major challenge is how to gather credible evidence to prove one's case.²³⁸ Frynas identifies the difficulty in getting scientific evidence to be admitted by the court as a problem, and concludes that as plaintiffs usually bear the burden of proof in all litigation in Nigeria—and providing the scientific evidence needed to establish plaintiffs' claims is easier for the oil companies—it remains an arduous task for the local people.²³⁹ This situation informed Osipitan's observation that from his experience as a Professor of Law and a Senior Advocate of Nigeria, the plaintiffs rarely discharge the burden of proof in environmental litigation.

Besides, the defendants already have a wide range of legal defenses which operate in their favor: statutes of limitation, several procedural rules on misjoinder of parties, and causes of action.²⁴⁰ Apart from these legal defenses, defendant oil companies have more financial and technical resources at their disposal than their opposing penurious, rural litigants.²⁴¹ Thus, they are better positioned to provide superior expertise in court. There is, therefore, a significant challenge to plaintiffs' access to justice in lawsuits against oil companies.²⁴²

²³⁴ Harlow & Spencer, *supra* note 191.

²³⁵ *See id.* at 478.

²³⁶ *See id.* at 462.

²³⁷ Golan, *supra* note 195, at 554 (footnote omitted).

²³⁸ Frynas, *supra* note 77, at 130–31.

²³⁹ *Id.*

²⁴⁰ *Id.* at 133.

²⁴¹ *See* Osipitan, *supra* note 65, at 116.

²⁴² *See id.*

Confronted with these realities, Oyende argues that the success in Nigerian courts involves overcoming many difficult obstacles.²⁴³

On the above premises, I conclude that it has become imperative for the burden of proof to shift from the plaintiffs to the defendants in environmental litigation in Nigeria. This will not only be fair to the plaintiffs who bear the brunt of environmental degradation, it will also position Nigeria's law in line with modern-day reality.

²⁴³ OYENDE, *supra* note 121, at 246.

