FROM ENVIRONMENTAL DEGRADATION TO PREMATURE DEATH: REFRAMING ECOCIDE AS A HEALTH-BASED STRUCTURAL GENOCIDAL PROCESS IN NIGERIA*

Abstract

This article examines ecocide in Nigeria as a health-based 'structural genocidal' process that systematically destroys communities through environmental pathways rather than direct physical violence. Drawing on interdisciplinary frameworks synthesizing environmental epidemiology, postcolonial political ecology, indigenous studies, and genocide scholarship, the analysis demonstrates how large-scale environmental destruction in the Niger Delta, Zamfara mining belt, southern forests, and northern desertification zones accomplishes functional or structural genocidal outcomes through chronic disease patterns, intergenerational health deterioration, cultural erasure, and demographic collapse. The study argues that oil spills, gas flaring, toxic waste contamination, deforestation, and desertification function as mechanisms of slow violence that disproportionately affect specific ethnic communities and cause significant harm to vulnerable populations. By examining documented health impacts, the analysis establishes that ecocide operates through epidemiological pathways that constitute biological genocide even absent explicit intent to destroy groups. The study also explores how environmental destruction annihilates indigenous ontologies and ways of being by eliminating the ecological foundations necessary for particular forms of collective existence to persist. The analysis concludes by proposing legal and political pathways toward recognition and remedy, including criminalizing ecocide under Nigerian and international law, implementing comprehensive environmental liability reform, and establishing environmental reparations frameworks that enable affected communities to determine their ecological futures. This reconceptualization of ecocide as genocidal violence challenges scholars, policymakers, and legal institutions to develop adequate frameworks for addressing contemporary forms of group destruction that operate through environmental mechanisms rather than conventional armed conflict.

Keywords: ecocide, functional or structural genocide, Niger Delta, environmental health impact, corporate accountability, environmental degradation, biopolitics.

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1. Introduction

The conventional understanding of genocide, rooted in Raphael Lemkin's 1944 formulation and subsequently codified in the 1948 United Nations Convention, centers primarily on direct acts of physical violence intended to destroy national, ethnic, racial, or religious groups.[1] However, this framework inadequately captures the slow violence of environmental destruction that systematically erodes the biological, cultural, and social foundations of communities. Increasingly, criminologists and environmental enthusiasts are connecting ecological destruction and functional genocide as deeply connected and mutually reinforcing concepts, often analysed within the context of the 'genocide-ecocide nexus.'[2] 'Genocide' and environmental degradation converge when we recognise that deliberately destroying ecosystems can annihilate communities by eliminating their means of survival, making ecocide a form of 'genocide' that kills through habitat destruction rather than direct violence.[3] Extending genocide's meaning to encompass ecocide acknowledges that indigenous peoples and vulnerable populations depend so intimately on their environments that poisoning rivers, felling forests, or rendering land uninhabitable constitutes an assault on the group itself, destroying cultural identity and physical existence simultaneously.[4] The nexus is particularly relevant to indigenous communities whose cultural and physical survival is often inextricably linked to their ancestral lands. Resource extraction and 'development' projects disproportionately impact these groups, leading to a form of slow, structural genocide or 'social death' through the loss of their way of life.[5] Wise argues that in Sudan, environmental destruction driven by (neo)colonial capitalist 'development' is structurally intertwined with genocide, producing long-term, racialised patterns of displacement, ecological harm, and social death.[6] In

1 UN Office on Genocide Prevention and the Responsibility to Protect, „Definitions of Genocide and Related Crimes" (United Nations, online) Article II definition of genocide, available at https://www.un.org/en/genocide-prevention/definition.

2 M J Lynch, A Fegadel and M A Long, „Green Criminology and State-Corporate Crime: The Ecocide-Genocide Nexus with Examples from Nigeria" (2020) 23 *Journal of Genocide Research* 236–256.

3 Lauren J. Eichler, (2020) „Ecocide Is Genocide: Decolonizing the Definition of Genocide," Genocide Studies and Prevention: An International Journal: Vol. 14: Iss. 2: 104-121.

4 Ibid.

5 Louise Wise, „The Genocide-Ecocide Nexus in Sudan: Violent "Development" and the Racial-Spatial Dynamics of (Neo)Colonial-Capitalist Extraction" (2021) 23(2) *Journal of Genocide Research* 189.

6 Ibid.

Nigeria, particularly within the Niger Delta, northern mining belts, and rapidly deforesting southern regions, ecocide operates as a health-based structural genocidal process that accomplishes group destruction through ecological pathways rather than immediate physical extermination.[7]

Beyond the physical, social, and cultural impacts, the most significant consequence is the effect on health. This study proposes an innovative interdisciplinary framework that synthesises environmental epidemiology, postcolonial political ecology, indigenous studies, and genocide scholarship to demonstrate how environmental destruction in Nigeria constitutes a functional or structural genocidal continuum that manifests through chronic disease patterns, intergenerational health deterioration, cultural erasure, and demographic collapse.

The term 'structural genocide' is employed here deliberately. Unlike the strict legal definition under the 1948 Genocide Convention, which requires proof of specific intent (*dolus specialis*) to destroy a group as such, structural genocide describes a configuration in which systems, policies, and economic arrangements produce the systematic destruction of a group's biological, cultural, and social foundations as a foreseeable, even if not always explicitly intended, outcome.[8] Leech expands the definition of genocide beyond direct killing to include social systems that systematically deprive people of the conditions needed for life.[9] It is this structural logic, rather than a declared extermination order, that characterises the environmental violence recognised throughout this study.

The analytical architecture deployed here also draws from Rob Nixon's concept of 'slow violence,' which describes environmental harm that occurs gradually and out of sight, a violence of delayed destruction dispersed across time and space.[10] When synthesised with structural violence theory from medical anthropology and settler-colonial studies, a compelling case emerges for understanding Nigerian ecocide not as incidental environmental damage

7 Ibid; Zainab Ladan Mai-Bornu, „Green Criminology in the Niger Delta of Nigeria, Why African Women"s Voices Matter" (2024) 13 *International Journal for Crime, Justice and Social Democracy* 41–50.

8 Garry Leech, *Capitalism: A Structural Genocide* (London & New York: Zed Books, 2012).

9 Ibid.

10 Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press 2011).

but as a systematic process that achieves structural genocidal outcomes through public health mechanisms. This approach challenges the artificial separation between environmental and human rights frameworks, demonstrating that ecosystem annihilation and population destruction are frequently two dimensions of the same phenomenon.

1.1 The Biopolitical Architecture of Ecocidal Violence

Nigeria's environmental crisis must be understood within what Michel Foucault termed 'biopolitics', the mechanisms through which power administers populations and manages life itself.[11] In the Niger Delta, where transnational and other multinational oil corporations have operated since 1956, oil extraction has fundamentally reorganised the biological conditions of existence for approximately 31 million people.[12] An environmental assessment of Ogoniland documented contamination so severe that some communities drink water containing benzene, a known carcinogen, at levels 900 times above World Health Organization guidelines.[13] This is not accidental pollution but rather what political ecologists call 'sacrifice zones,' geographic areas deemed expendable in service of broader economic imperatives.[14]

The structural genocidal dimension emerges when examining health outcomes systematically documented across affected populations.[15] For example, studies have found that residents of oil-producing communities in Bayelsa State experienced health issues at higher rates than national averages, including respiratory disease and cancer.[16] These statistics represent not isolated health incidents but rather patterned biological degradation affecting entire ethnic

11 Daniel Zimmer, „The Power to Kill Life Itself: Michel Foucault, Biopolitics, and the Political Challenge of Human Extinction" (2025) *Perspectives on Politics* (published online 20 March 2025).

12 Thomas Ewauma, „Impact of Oil & Gas Production on the Niger Delta" (Climate Justice Central, 14 August 2024) https://www.climatejusticecentral.org/posts/impact-of-oil-gas-production-on-the-niger-delta; Chukwuma Muanya, „People in Oil-Producing Areas Are Prone to Cancer" *The Guardian* (Nigeria, 24 February 2017).

13 United Nations Environment Programme, *Environmental Assessment of Ogoniland* (UNEP 2011).

14 Robert D Bullard, „review of *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States* by Steve Lerner (2010) *Environmental Health Perspectives* 119(6) A266.

15 J Nriagu, E A Udofia, I Ekong and G Ebuk, „Health Risks Associated with Oil Pollution in the Niger Delta, Nigeria" (2016) 13 *International Journal of Environmental Research and Public Health* 346.

16 Benson Chukwunweike Ephraim-Emmanuel, Okokon Enembe and Best Ordinioha, „Respiratory Health Effects of Pollution Due to Artisanal Crude-Oil Refining in Bayelsa, Nigeria" (2023) 89 *Annals of Global Health* 74.

groups, particularly the Ogoni, Ijaw, and Itsekiri peoples whose territorial homelands coincide with petroleum extraction zones.[17]

Gas flaring and fracking provide a particularly instructive case study in how ecocide operates as a slow-motion genocidal process. Nigeria flares more natural gas than any nation except Russia, burning off approximately 18 billion cubic meters annually.[18] Oil and gas flaring releases not only carbon dioxide but also a range of harmful pollutants, including methane, black carbon, nitrogen oxides, sulfur dioxide, carbon monoxide, and volatile organic compounds, with the specific mix varying based on flaring conditions and the composition of the associated gas.[19] These emissions collectively threaten climate stability, degrade air quality, and pose significant risks to human health.[20] Fracking is another practice that releases benzene, toluene, xylene, hydrogen sulfide, and other compounds directly into communities that cannot relocate.[21] Exposure to these substances can trigger eye, nose, and throat irritation; respiratory issues such as coughing, breathing difficulties, and aggravated asthma; and cardiovascular complications, including hypertension, heart attacks, and worsening cardiac conditions.[22] Additional health impacts include neurological problems like

17 Wisdom Ebiye Sawyer and Sylvester Chibueze Izah, „Particulate Matter Pollution and Health Status of Residents in Bayelsa State, Nigeria: An Assessment" (2025) *Journal of Community & Public Health Medicine* 8(1052) https://www.jscimedcentral.com/public/assets/articles/communitymedicine-8-1052.pdf

18 Adati Ayuba Kadafa, „Environmental Impacts of Oil Exploration and Exploitation in the Niger Delta of Nigeria" (2012) 12 *Global Journal of Science Frontier Research Environment & Earth Sciences* 19–28.

19 Okechukwu Chukwuma David Anejionu, James D Whyatt, George A Blackburn and Christopher S Price, „Contributions of Gas Flaring to a Global Air Pollution Hotspot: Spatial and Temporal Variations, Impacts and Alleviation" (2015) 118 *Atmospheric Environment* 184–193.

20 Justice Nwafor, „How Gas Flaring Harms Health, Climate and Environment in Niger Delta Community" *Nigerian Tribune* (11 October 2022) https://tribuneonlineng.com/how-gas-flaring-harms-health-climate-and-environment-in-niger-delta-community/; Huy Tran, Erin Polka, Jonathan J Buonocore, Ananya Roy, Beth Trask, Hillary Hull and Saravanan Arunachalam, „Air Quality and Health Impacts of Onshore Oil and Gas Flaring and Venting Activities Estimated Using Refined Satellite-Based Emissions" (2024) 8 *GeoHealth* e2023GH000938.

21 Tanja Srebotnjak and Miriam Rotkin-Ellman, *Fracking Fumes: Air Pollution from Hydraulic Fracturing Threatens Public Health and Communities*, NRDC Issue Brief (Natural Resources Defense Council) https://www.nrdc.org/sites/default/files/fracking-air-pollution-IB.pdf

22 Ibid; ATSDR, „ToxFAQs for Nitrogen Oxides, Benzene, Toluene, Ethylbenzene, and Xylene" (Agency for Toxic Substances and Disease Registry, CDC) https://www.atsdr.cdc.gov/toxfaqs/Index.asp; OEHHA, „Diesel Particulate Matter: Health Effects" (Office of Environmental Health Hazard Assessment, California) https://oehha.ca.gov/public_info/facts/dieselfacts.html; NIOSH, „Pocket Guide to Chemical Hazards: Hydrogen Sulfide" (National Institute for Occupational Safety and Health, CDC) https://www.cdc.gov/niosh/npg/npgd0337.html; US EPA, „Volatile Organic Compounds and Ground-Level Ozone" (United States Environmental Protection Agency) https://www.epa.gov/groundlevelozone/basic.html

headaches, dizziness, and confusion; blood and bone marrow damage causing anaemia and immune dysfunction; reproductive harm; developmental effects in fetuses and children; and increased risks of cancer and premature death.[23] A review by some scholars reveals how pollutants emitted from gas flaring relate to cancers, birth defects, respiratory conditions, cardiovascular problems, and other diseases experienced in communities near flaring sites.[24] Another cross-sectional study on haematological parameters near gas-flaring sites showed that residents living within 5 km of a gas-flaring facility in Bayelsa State showed significant changes in blood markers (e.g., elevated white blood cell counts), which are associated with inflammation and potentially cancer risk.[25] Critically, these health impacts accumulate intergenerationally, as children born to parents exposed to flare emissions demonstrate lower birth weights, developmental delays, and compromised immune function, a biological inheritance of environmental violence that threatens group continuity across time.[26]

1.2 Indigenous Ontology and the Erasure of Being

Moving beyond biomedical frameworks, the structural genocidal character of Nigerian ecocide becomes even more apparent when examining how environmental destruction annihilates indigenous ontologies and ways of being. For the Ogoni people, whose traditional territory spans approximately 1,000 square kilometers in Rivers State, land is not merely an economic resource but rather constitutes the foundation of cosmology, kinship systems, spiritual practice, and collective identity.[27] The Ogoni creation narratives position the

23 Ibid; Florencia Pascual, „Fracking and Childhood Leukemia: New Evidence Supports Greater Residential Setbacks" (2022) 130 *Environmental Health Perspectives* 094002.

24 Nkemdilim Ifeanyi Obi, Alero Akuirene, Phillip Bwititi, Josiah Adjene and Ezekiel Uba Nwose, „Community Health Perspective of Gas Flaring on Communities in Delta Region of Nigeria: Narrative Review" (2021) 7 *International Journal of Scientific Reports* 180–185.

25 Domotimi James Jato, Felix M. Onyije, Osaro O. Mgbere and Godwin Ovie Avwioro, „Exposure to Gas Flaring Among Residents of Oil-Producing Communities in Bayelsa State, Niger Delta Region of Nigeria: A Cross-Sectional Study of Haematological Indices" (2024) 7 *J — Multidisciplinary Scientific Journal* 472–481.

26 Omatseye Alero Akuirene and others, „Impact of Gas Flaring on Acute Respiratory Distress among Pregnant Women and Newborn Babies in Delta State Central Senatorial District, Nigeria" (2025) 9(4) *Journal of Applied Public Health;* Ousman Bajinka and others, „The Influence of Parental Environmental Exposure and Nutrient Restriction on the Early Life of Offspring Growth in Gambia: A Pilot Study" (2022) 19(20) *International Journal of Environmental Research and Public Health* 13045.

27 Intercontinental Cry „Ogoni" https://icmagazine.org/indigenous-peoples/ogoni/; A. Olu Oyinlade and Jeffery M. Vincent, „The Ogoni of Nigeria" in Robert K. Hitchcock and Alan J. Osborn (eds), *Endangered Peoples of Africa and the Middle East: Struggles to Survive and Thrive* (Greenwood Press 2002).

community as emerging from and belonging to specific rivers, forests, and soil.[28] Oyinlade and Vincent write that 'the fertile land and rivers of the region not only provide sustenance for the Ogoni but are regarded as a spiritual inheritance. The land is a god, and it is worshiped as such. Despite Christianization, many aspects of indigenous culture persist.'[29] When oil spills contaminate these sacred geographies, as occurred in 2008 when the Bodo community experienced two major Shell pipeline ruptures releasing an estimated 600,000 barrels of crude,[30] the destruction transcends environmental damage to constitute what indigenous studies scholars term 'ontological genocide'.[31]

The late playwright and activist Ken Saro-Wiwa articulated this connection before his execution by the Nigerian military government in 1995, stating that

> The Ogoni country has been completely destroyed by the search for oil....Oil blow-outs,
> spillages, oil slicks, and general pollution accompany the search for oil....Oil companies have flared gas in Nigeria for the past thirty-three years causing acid rain....What used to be the bread basket of the delta has now become totally infertile. All one sees and feels around is death. Environmental degradation has been a lethal weapon in the war against the indigenous Ogoni people.[32]

This statement captures how ecocide achieves structural genocidal outcomes by destroying the material conditions necessary for a particular form of collective existence to persist. When fishing grounds collapse due to oil contamination, when agricultural land becomes toxic, when sacred forests are razed, the Ogoni cease to exist not because individuals are killed but because

28 Oyinlade and Vincent, ibid.

29 Ibid 135.

30 Amnesty International, „Nigeria/UK: „Historic moment" as community devastated by Shell oil spills have final chance for justice" (7 May 2025) https://www.amnesty.org/en/latest/news/2025/05/nigeria-uk-historic-moment-as-community-devastated-by-shell-oil-spills-have-final-chance-for-justice/

31 Eichler Lauren J, „Ecocide Is Genocide: Decolonizing the Definition of Genocide" (2020) 14 *Genocide Studies and Prevention: An International Journal* 104–121.

32 Interview, Channel 4 (U.K.), 15 Nov. 1995 as cited in Rob Nixon, „Pipe Dreams: Ken Saro-Wiwa, Environmental Justice, and Micro-Minority Rights" (1996) 1 *Black Renaissance* 1–11 http://english.wisc.edu/rdnixon/files/pipe_dreams.pdf

the ecological foundations supporting Ogoni-ness as a distinct way of being in the world have been eliminated.[33]

Anthropologist Michael Watts documented in his study of the Niger Delta[34] how this environmental violence produces 'petro-violence,' a configuration in which oil extraction generates political economies that systematically marginalise and immiserate local populations while enriching external actors.[35] The Niger Delta witnessed over 10,000 documented oil spills, and the resulting health impacts have been severe and far-reaching.[36] Official accounts further substantiate the claims of environmental harm in the Niger Delta communities.[37] A report by the Bayelsa State Oil and Environmental Commission, titled 'An Environmental Genocide: The human and environmental cost of Big Oil in Bayelsa, Nigeria' documents how decades of oil extraction have caused widespread environmental destruction, severe public health impacts, and economic harm in Bayelsa State.[38] Each spill, environmental degradation or pollution represents not only immediate ecological damage but also a contribution to an accumulated toxic burden that makes traditional livelihoods progressively impossible, forcing migration, cultural dissolution, impacting health and group fragmentation.[39]

33 United Nations Environment Programme, *Environmental Assessment of Ogoniland* (UNEP 2011) https://wedocs.unep.org/handle/20.500.11822/7947

34 Michael Watts 'Resource curse? Governmentality, oil and power in the Niger Delta, Nigeria' (2004) 9(1) Geopolitics 50.

35 Michael Watts, „Petro-Violence: Community, Extraction, and Political Ecology of a Mythic Commodity" in Nancy Peluso and Michael Watts (eds), *Violent Environments* (Cornell University Press 2001) 189–212; Michael Watts, *Human Rights, Violence and the Oil Complex: Niger Delta Economies of Violence, Working Paper No 2* (Institute of International Studies, University of California, Berkeley 2004).

36 H A Umar and others, „Environmental and Socioeconomic Impacts of Pipeline Transport Interdiction in Niger Delta, Nigeria" (2021) 7(5) *Heliyon* e06999; O Ipingbemi, „Socio-Economic Implications and Environmental Effects of Oil Spillage in Some Communities in the Niger Delta" (2009) 6(1) *Journal of Integrative Environmental Sciences* 7.

37 Bayelsa State Oil and Environmental Commission, *An Environmental Genocide: The Human and Environmental Cost of Big Oil in Bayelsa, Nigeria* (Bayelsa Commission) https://report.bayelsacommission.org/

38 Ibid.

39 Ibid.

1.2.1 Zamfara's Lead Poisoning Crisis: Childhood as Structural Genocidal Target

In Zamfara State's northwestern mining belt, illegal artisanal gold mining has created what Médecins Sans Frontières described as 'lead poisoning crises'.[40] In March 2010, Médecins Sans Frontières received reports of alarming child mortality rates in Nigeria's Zamfara state, with approximately 400 children having died, and subsequent blood tests revealed dangerously elevated lead levels in surviving children.[41] The poisoning stemmed from hazardous mining and ore processing practices, with children under five facing the greatest vulnerability to severe illness and death from lead exposure, though adults and older children also remained at risk. Between 2010 and 2013, lead contamination killed many children and poisoned at least 2,500 more in predominantly Hausa and Fulani communities.[42] Health and environmental evaluations conducted in the villages of Dareta and Yargalma recorded 163 fatalities, with children under five accounting for up to one-third of the deaths.[43] Follow-up assessments across six more villages revealed that over 17,000 individuals suffered severe lead exposure, with an estimated 400–500 children succumbing to acute lead poisoning.[44] Lead levels in other affected villages were said to have reached concentrations of 100,000 parts per million in soil, vastly exceeding the 400 ppm safety threshold established by the U.S. Environmental Protection Agency.

The structural genocidal calculus becomes evident when examining how this poisoning targets specific populations and life stages. Lead exposure during childhood produces irreversible neurological damage, reducing cognitive

40 Médecins Sans Frontières (MSF), „Lead Poisoning Crisis in Zamfara State, Northern Nigeria" (Special Report, 8 May 2012) https://www.doctorswithoutborders.org/latest/lead-poisoning-crisis-zamfara-state-northern-nigeria

41 Ibid.

42 Simba Tirima, Casey Bartrem, Ian von Lindern, Margrit von Braun, Douglas Lind, Shehu Mohammed Anka and Aishat Abdullahi, „Environmental Remediation to Address Childhood Lead Poisoning Epidemic Due to Artisanal Gold Mining in Zamfara, Nigeria" (2016) 124 *Environmental Health Perspectives* 1471–1478 https://doi.org/10.1289/ehp.1510145

43 Chukwuma A Dooyema, Swarthout and others, „Outbreak of Fatal Childhood Lead Poisoning Related to Artisanal Gold Mining in Northwestern Nigeria, 2010" (2012) 120 *Environmental Health Perspectives* 601–607.

44 James Greig, Nathan Thurtle, Laura Cooney, Christina Ariti, Abubakar O Ahmed, Tewodros Ashagre and others, „Association of Blood Lead Level with Neurological Features in 972 Children Affected by an Acute Severe Lead Poisoning Outbreak in Zamfara State, Northern Nigeria" (2014) 9 *PLoS One* e93716; Médecins Sans Frontières (MSF), „Lead Poisoning Crisis in Zamfara State, Northern Nigeria" (Special Report, 8 May 2012); World Health Organization (WHO), „Nigeria: Mass Lead Poisoning from Mining Activities, Zamfara State – Update 1" (WHO, Geneva, 2011) http://www.who.int/csr/don/2011_11_11/en/

capacity, causing behavioural disorders, and compromising reproductive health in ways that echo across generations.[45] Lead exposure in the environment also correlates with diminished cognitive function in otherwise healthy children, manifesting as reduced IQ scores, impaired attention span, and behavioural difficulties.[46] Unfortunately, such a cognitive burden will shape life trajectories and community capacity for decades. Children who survive acute lead poisoning often face lifelong disabilities that prevent educational achievement, economic participation, and normal social integration.[47]

This pattern illustrates what genocide scholar Martin Shaw calls 'degenerate war,' encounters that deliberately or systematically target civilian populations and their social reproduction.[48] While Zamfara's mining-driven contamination lacks explicit intent to destroy ethnic groups, the structural configuration through which poor, predominantly Hausa communities bear catastrophic health costs for minerals that enrich external actors creates what critical legal theorist Achille Mbembe terms necropolitics, the power to dictate who may live and who must die, or exist in zones between life and death.[49]

1.2.2 Deforestation and Cultural Genocide in Southern Nigeria

Nigeria's deforestation rate stands among the world's highest areas with a fast loss of forest cover annually, according to the Food and Agriculture Organization.[50] In Edo, Delta, and Cross River States, where many minority ethnic groups maintain traditional relationships with forest ecosystems, this destruction eliminates irreplaceable cultural heritage.[51] The Osun-Osogbo Sacred Grove, a UNESCO World Heritage site, represents one of the last

45 Haena Lee, Mark W Lee, John Robert Warren and Joseph Ferrie, „Childhood Lead Exposure Is Associated with Lower Cognitive Functioning at Older Ages" (2022) 8 *Science Advances* eabn5164; Reuben Aaron, „Childhood Lead Exposure and Adult Neurodegenerative Disease" (2018) 64 *Journal of Alzheimer's Disease* 17–42.

46 Marissa Hauptman, Rebecca Bruccoleri and Alan D Woolf, „An Update on Childhood Lead Poisoning" (2017) 18 *Clinical Pediatric Emergency Medicine* 181–192.

47 Ibid.

48 Martin Shaw, *War and Genocide: Organized Killing in Modern Society* (Polity Press 2003).

49 Achille Mbembe, *Necropolitics* (trans. Libby Meintjes, Duke University Press 2019).

50 Food and Agriculture Organization, Global Forest Resources Assessment 2020: Nigeria Country Report (FAO 2020)).

51 Chioma Emma, „The Vanishing Forest: Biodiversity at Risk in Cross River and Edo States" *Global Sentinel* (12 November 2023) https://globalsentinelng.com/the-vanishing-forest-biodiversity-at-risk-in-cross-river-and-edo-states/ ; Alokya Kanungo, „The Silent Cry of the Forest: How Deforestation Impacts Indigenous Communities" *Earth.Org* (8 August 2023) https://earth.org/the-silent-cry-of-the-forest-how-deforestation-impacts-indigenous-communities/

remnants of primary forest that once dominated southern Nigeria, containing shrines, sculptures, and ritual spaces integral to Yoruba religious practice for centuries.[52]

When commercial logging, agricultural expansion, and urban development eliminate such forests, they destroy what anthropologist Anna Tsing refers to as 'assemblages of multispecies living' (to describe how humans and non-humans (plants, fungi, microbes, landscapes) come together in contingent, co-constitutive life processes).[53] For communities like the Ekuri in Cross River State, who have maintained sustainable forest management practices for generations, deforestation eliminates the material basis for transmitting indigenous ecological knowledge, traditional medicine systems, and cultural practices that define group identity.[54] Research by Nigerian geographer Adeniyi Asiyanbi demonstrates how this environmental destruction intersects with what he terms 'territorialization by dispossession,' processes through which land tenure changes and resource extraction eliminate local communities' ability to maintain traditional land-use patterns.[55] Between 1976 and 2014, Edo State lost approximately 75% of its forest cover, displacing communities, fragmenting territories, and forcing abandonment of agricultural systems that had sustained populations for centuries.[56] This pattern exemplifies structural genocide, the systematic destruction of a group's life conditions through environmental and territorial transformations rather than direct violence.

52 UNESCO World Heritage Centre, „Osun-Osogbo Sacred Grove" (World Heritage List No 1118) https://whc.unesco.org/en/list/1118/

53 Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton University Press 2015).

54 Linus Unah, „Ekuri Initiative: Inside a Nigerian Community"s Battle to Keep Its Forest" *Mongabay* (15 August 2019). https://news.mongabay.com/2019/08/ekuri-initiative-inside-a-nigerian-communitys-battle-to-keep-its-forest; Sunday U Brownson, Gloria Chigbu and Christopher M Osazuwa, „Cultural Security and Environmental Conservation: Exploring the Link Between Indigenous Knowledge Systems and Sustainable Resource Management in Cross Rivers State" (2024) 6 *The American Journal of Management and Economics Innovations* 13–40.

55 Adeniyi P Asiyanbi, „Financialisation in the Green Economy: Material Connections, Markets-in-the-Making and Foucauldian Organising Actions" (2018) 50(3) *Environment and Planning A: Economy and Space* 531–550.

56 Michael Egbejule, „Nigeria: Edo Communities Lament Dearth of Forest Life, Deforestation, Others" *The Guardian* (Benin City, 11 June 2018) https://www.farmlandgrab.org/post/28217-nigeria-edo-communities-lament-dearth-of-forest-life-deforestation-others

1.2.3 Desertification and Its Impact on the Slow Erasure of Northern Populations

Northern Nigeria faces an advancing desertification crisis that converts approximately 350,000 hectares of productive land to desert annually.[57] Desert landscapes are said to now cover approximately 580,841 km of Nigeria, representing roughly 63.8% of the nation's total land area. [58] Desertification is advancing southward across the country at a rate of 0.6 km annually, consuming around 351,000 hectares of agricultural and grazing land each year.[59] This environmental crisis affects approximately 30 million people, 17% of Nigeria's population, across 15 of its 36 states in the northern region, particularly those bordering the ecologically fragile Sahelian-Saharan zone of Niger Republic.[60] This environmental transformation particularly affects Fulani pastoralists, the Hausas, Kanuri and other ethnic tribes in the farming communities in Borno, Yobe, and Jigawa States, whose survival systems depend on specific rainfall patterns, vegetation zones, and water availability that climate change and land degradation have progressively eliminated. The consequential devastation has produced far-reaching consequences for human communities, livestock, and vegetation through multiple pathways. The earth's terrestrial environments serve as fundamental pillars supporting human existence, wellness, and planetary survival.[61] These landscapes deliver critical ecological functions alongside social, cultural, spiritual, and economic advantages that constitute the foundational support system sustaining human vitality and prosperity.[62] Viable land resources generate indispensable resources including nourishment and nutritional elements; potable water and breathable air; housing; medicinal substances and healing compounds. They also nourish human survival by providing the means for necessities such as timber,

57 Ibrahim Ismail Elnafat, *Desertification In Nigeria and Its Impact On Climate Change* (Climate Change Writers, 23 December 2025) https://www.climatechangewriters.com/stories/desertification-in-nigeria-and-its-impact-on-climate-change-2

58 Mahmoud I Ibrahim and others, *Desert Encroachment Monitoring in North-Eastern Nigeria* (UN Office for Outer Space Affairs PDF) https://www.unoosa.org/documents/pdf/psa/activities/2022/UN-Austria/Mahmoud_Ibrahim_Mahmoud.pdf

59 Ibid.

60 Ibid.

61 A Sena and K Ebi, *When Land Is Under Pressure Health Is Under Stress* (2021) 18 *Int J Environ Res Public Health* 136 https://doi.org/10.3390/ijerph18010136

62 Ibid.

combustible materials, textile resources, power sources, climate stability for growing food and crop fertilisation, mitigation of natural disasters and disease risks; water filtration, income opportunities, and most importantly enrichment through cultural, spiritual, and leisure activities.[63] Desertification destroys this biological diversity, the variety present within and across ecological systems and living organisms, which is essential for ecosystem functioning and service provision, and this in turn underpins the maintenance of human health and overall welfare.[64]

Lake Chad, which supported approximately 30 million people across Nigeria, Niger, Chad, and Cameroon, has shrunk by approximately 90% since the 1960s, eliminating fisheries, irrigation sources, and grazing lands that sustained diverse ethnic groups for generations.[65] For the Kanuri people and many other ethnic groups centered around Lake Chad's Nigerian shores, this environmental collapse threatens cultural extinction, as fishing and lake-centered commerce have organized Kanuri social life, economic systems, and cultural identity for over a millennium.[66] Drought-driven desertification not only depletes water sources and devastates agricultural livelihoods but also erodes cultural practices tied to the land, disrupting traditional ways of life, severing spiritual connections to ancestral territories, and triggering cascading health crises through malnutrition, displacement, and the collapse of community support systems.

Worse is the resulting displacement, conflict and resource depletion. Desertification in Nigeria's northern region, driven by climate change and unsustainable land use, has significantly reduced available grazing land,

63 World Health Organization, *Ecosystems and Human Well-Being: Health Synthesis* (A report of the Millennium Ecosystem Assessment, WHO Press, Geneva, 2005) https://iris.who.int/bitstream/handle/10665/43354/9241563095.pdf

64 S Whitmee, A Haines, C Beyrer, F Boltz, AG Capon, BF de Souza Dias, A Ezeh, H Frumkin, P Gong, P Head and others, *Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation-Lancet Commission on planetary health* (2015) 386 *Lancet* 1973–2028.

65 Food and Agriculture Organization of the United Nations, *Lake Chad, a system under threat* (FAO, 14 February 2023) https://www.fao.org/land-water/news-archive/news-detail/en/c/267309/

66 World Food Programme, *Socio-Economic Analysis of the Lake Chad Basin Region, with Focus on Regional Environmental Factors, Armed Conflict, Gender and Food Security Issues* (Desk Review, WFP/E 036, April 2016).

forcing nomadic Fulani herders to move southward into the middle belt.[67] This migration has catalysed intense competition with sedentary farmers over land and water, escalating into violent, often fatal, conflicts.[68] In many cases, the consequential conflict is viewed as an abstract ethnic or ideological disagreement. However, framing this primarily as ethnic or religious conflict obscures the underlying environmental driver: desertification is systematically destroying the ecological foundations supporting particular modes of existence, forcing populations into untenable competition over diminishing resources. The International Crisis Group estimated that these conflicts have displaced over 200,000 people and caused over 8,000 deaths since 2010, a death toll that rivals many conventionally recognised armed conflicts.[69] Conditions endured by internally displaced populations remain dire, marked by inconsistent and insufficient food supplies, makeshift housing arrangements, and substandard healthcare and hygiene facilities.[70] For example, it was reported in 2019 that the majority of infrastructure developed from 2012 to 2019 in Zamfara, including more than 2,000 kilometers of roadways, numerous educational facilities, and 716 medical centres, had become inaccessible owing to security threats.[71]

1.3 Intersectionality and Compounded Vulnerabilities

Ecocide's structural genocidal impacts in Nigeria operate along intersecting axes of ethnicity, class, gender, and geographic marginalisation. Women in oil-producing communities face particular vulnerabilities, as environmental destruction eliminates traditional livelihoods like fishing and farming that provided economic autonomy, while exposure to petrochemical pollution increases reproductive health risks. A retrospective cohort study of pregnant women in oil-polluted areas of the Niger Delta found that exposure to oil

67 Nsemba Edward Lenshie, Kelechi Okengwu, Confidence N Ogbonna and Christian Ezeibe, *Desertification, migration, and herder-farmer conflicts in Nigeria: rethinking the ungoverned spaces thesis* (2020) 32 *Small Wars & Insurgencies* 1221–1251; Tama Hope Jacob and Rebecca Jacob Tama, *Desertification is a major cause of herders-farmers conflicts in Nigeria* JournalNX Volume 7(3), 2021); Muktar Bashir, *Desertification and Its Implications On Farmers-Herders Conflicts in Nigeria: An Analytical Appraisal* (2021) 5 *International Journal of Research and Innovation in Social Science (IJRISS)* 207–211.

68 Ibid.

69 International Crisis Group, *Violence in Nigeria's North West: Rolling Back the Mayhem*, Africa Report No 288 (2020) https://www.crisisgroup.org/africa/west-africa/nigeria/288-violence-nigerias-north-west-rolling-back-mayhem

70 Ibid.

71 Ibid.

pollution was associated with higher odds of stillbirth compared with less-exposed areas.[72]

Children represent another population bearing a disproportionate ecocidal burden. Beyond lead poisoning in Zamfara,[73] environmental health researchers have documented elevated rates of asthma, stunting, and developmental delays among children throughout Nigeria's pollution hotspots.[74] For instance, a cross-sectional survey of 1,518 children aged 7-14 years, documenting respiratory symptoms with night cough (23%), rhinitis (19%), and phlegm (16%), had the highest prevalence.[75] These health impacts function as what structural violence in what may be termed 'biological expressions of social inequality,'[76] physiological manifestations of systematic environmental injustice that compound across the life course and generations.

1.4 The Current Regulatory Framework: Provisions and Gaps.

Despite Nigeria's ratification of numerous international environmental agreements and constitutional provisions ostensibly protecting environmental rights (non-justiciable in many cases), ecocide remains ineffectively implemented.[77] Although some legislative arrangements have been made, Nigeria's environmental governance architecture is characterised by a diffuse, multi-agency structure that, in practice, produces systemic impunity.

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72 Onome B Oghenetega and others, „Miscarriage, Stillbirth, and Infant Death in an Oil-Polluted Region of the Niger Delta, Nigeria: A Retrospective Cohort Study" (2020) 150 *International Journal of Gynecology & Obstetrics* 361–367.

73 Natalie Thurtle and others, „Description of 3,180 Courses of Chelation with Dimercaptosuccinic Acid in Children ≤5 y with Severe Lead Poisoning in Zamfara, Northern Nigeria: A Retrospective Analysis of Programme Data" (2014) 11 *PLOS Medicine* e1001739.

74 A F Eghomwanre, O Oguntoke and A M Taiwo, „Levels of Indoor Particulate Matter and Association with Asthma in Children in Benin City, Nigeria" (2022) 194 *Environmental Monitoring and Assessment* 467; B A Mustapha and others, „Traffic Air Pollution and Other Risk Factors for Respiratory Illness in Schoolchildren in the Niger-Delta Region of Nigeria" (2011) 119 *Environmental Health Perspectives* 1478; S O Gbadamosi and others, „The Interplay of Oil Exploitation, Environmental Degradation and Health in the Niger Delta: A Scoping Review" (2025) 30(5) *Tropical Medicine & International Health.*

75 Mustapha and others ibid.

76 Dan Lowe, „Biological Explanations of Social Inequalities" (2022) 103 *Pacific Philosophical Quarterly* 694–719.

77 Nfor Nde Nyambi, „Africa"s Silent Crime: Towards Recognising Ecocide under the Malabo Court Protocol" (2025) 9 *African Human Rights Yearbook* 515–537.

The principal instruments governing environmental liability in the extractive sector include: the Petroleum Industry Act 2021 (PIA);[78] the Environmental Impact Assessment Act (EIA) (Cap E12, LFN 2004); the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007 (NESREA Act) (also containing over 30 NESREA pollution-control regulations covering air, water, waste, chemicals, and industry); Gas Flaring, Venting and Methane Emissions (Prevention of Waste and Pollution) Regulations 2023 (under the Petroleum Industry Act 2021); the Oil Pipelines Act (Cap O7, LFN 2004); Harmful Waste (Special Criminal Provisions) Act Cap H1 LFN 2004, the Climate Change Act 2021 etc. At the constitutional level, section 20 of the 1999 Constitution directs the state to protect and improve the environment, but this provision is contained in Chapter II (Fundamental Objectives and Directive Principles of State Policy), which by virtue of section 6(6)(c) is expressly non-justiciable and therefore unenforceable before Nigerian courts without enabling legislation. This structural non-justiciability constitutes a foundational gap in Nigeria's environmental protection regime since the highest normative commitment to environmental protection is legally toothless.

The PIA 2021, which restructured the petroleum industry following decades of criticism of the Petroleum Act 1969, was heralded as a reform instrument. However, it retains critical liability gaps. It has been argued that because the PIA does not clearly specify which authority is responsible for responding to oil spills, it fails to prioritise environmental protection and instead treats it as a secondary concern.[79]

The standard of liability for oil spills attributable to sabotage, a category that oil companies disproportionately invoke, remains effectively one of exempted liability for the operator, reversing what should logically be a strict liability regime for inherently hazardous activities. Section 257 of the PIA can be critically read as a mechanism that, while framed as deterrence against vandalism, effectively risks reproducing structural injustice against already

78 Section 104 of the PIA for example, prohibits flaring or venting, requiring operators to submit gas utilization plans to avoid penalties, managed by the NUPRC.

79 Social Action, „Addressing the Shortcomings of the Petroleum Industry Act (PIA) in Addressing Communities" Environmental Concerns" (Social Action) https://saction.org/addressing-the-shortcomings-of-the-petroleum-industry-act-pia-in-addressing-communities-environmental-concerns/

marginalised oil-producing communities in the Niger Delta.[80] From a critical perspective, the provision shifts the financial burden of infrastructural damage onto host communities by allowing the deduction of repair costs from their annual entitlements where 'vandalism, sabotage or civil unrest' occurs. Although the clause excludes damage caused by technical failure or natural causes, its framing assumes a direct and collective community responsibility for acts that are often complex, politically rooted, and unevenly distributed among actors. In doing so, it risks collapsing distinctions between individual criminal acts and collective punishment. This raises an important issue of distributive and procedural injustice. Entire communities may experience reduced benefits under the Host Communities Development Trust even when they are not directly responsible for the damage. Such a structure can be interpreted as a form of institutionalised blame allocation, where socio-economic deprivation and environmental degradation are further entrenched through financial penalties. Critically, the provision also reflects a form of structural violence. Instead of addressing the underlying causes of pipeline vandalism, such as poverty, oil pollution, weak state presence, and historical grievances, the Act prioritises protection of petroleum infrastructure and cost recovery for operators. This can reinforce cycles of marginalisation by reducing development funds in precisely the communities most affected by extraction-related harm. In this sense, Section 257 can be read as embedding a securitised logic within environmental governance, where community welfare is made conditional on compliance and non-disruption. Rather than resolving the long-standing tensions between oil extraction and host community wellbeing, it risks deepening distrust and reproducing the very conditions of instability it seeks to prevent.

Another key limitation is the absence of clear standards for remediation and compensation following environmental harm, resulting in inconsistent and often inadequate responses.

80 The Section reads „Where in any year, an act of vandalism, sabotage or other civil unrest occurs that causes damage to petroleum and designated facilities or disrupts production activities within the host communities, the community shall forfeit its entitlement to the extent of the costs of repairs of the damage that resulted from the activity with respect to the provisions of this Act within that financial year : Provided the interruption is not caused by technical or natural cause."

While the PIA expressly requires the creation of a Host Communities Development Trust, the way the law is structured hands oil companies excessive influence over funds that are supposed to empower affected communities. Under Section 235, a settlor (meaning the oil firm operating in the community) is mandated to establish and incorporate the Host Communities Development Trust for the benefit of the host communities. The same provision contemplates that the settlor, in consultation with the communities, appoints the board of trustees that will run the trust and manage the funds. In practice, this means companies, rather than the communities themselves, have disproportionate control over who sits on the trust's board and how development priorities are set or prioritised. That structural tilt weakens the Trust's potential as a genuine vehicle for community empowerment or remedial framework and instead risks making it little more than a corporate-managed fund with nominal community input.

NESREA was commendably established to enforce environmental standards across sectors, expressly. However, a major flaw is that it excludes the oil and gas sector from its jurisdiction with respect to 'compliance with regulations on the importation, exportation, production, distribution, storage, sale, use, handling and disposal of hazardous chemicals and waste' by virtue of section 7(g) (h) of the NESREA Act. This provision effectively exempts the very sector responsible for the most extensive and severe environmental harm identified in this study, reinforcing a troubling culture of impunity and evasion of liability.

Despite its noble objectives and well-meaning provisions, a major limitation of the EIA Act in addressing environmental degradation and ecocide lies in its weak enforcement framework. This has led some scholars to describe the law as a mere 'paper tiger' rather than a truly effective safeguard against environmental harm.[81]

While enforcement agencies such as the National Environmental Standards and Regulations Enforcement Agency (NESREA) and the National Oil Spill Detection and Response Agency (NOSDRA) exist, they are often hindered by

[81] Onyekachi Eni, Ngozi Chinwa Ole, Hemen Faga and Onyinyechukwu Theresa Eze, „Mapping the Weaknesses of Nigeria"s Environmental Impact Assessment Mechanism as a Framework for Environmental Justice in the Petroleum Sector" (2024) 28(1) *Human Ecology Review* 7.

systemic weaknesses, corruption, and a lack of political will to enforce regulations, particularly against powerful oil corporations.[82]

The gaps within the legal framework further compel reliance on common law in environmental litigation, thereby placing a significant evidentiary burden on affected communities, particularly in the absence of a clearly articulated constitutional right to a healthy environment. This limitation, coupled with weak prosecutorial capacity, gives rise to what this study conceptualises as institutionalised ecocidal impunity.

This regulatory architecture also reflects transnational corporate impunity, regulatory systems that shield multinational corporations from accountability for actions that would constitute criminal environmental destruction in their home jurisdictions.[83] When Shell faced trial in the Netherlands over its Nigerian operations, Dutch courts found the company liable for inadequate pipeline maintenance that led to the Oruma and Goi spills.[84] However, in Nigeria, such findings remain virtually impossible under current legal frameworks that require affected communities to prove corporate negligence rather than imposing strict liability standards. In the case of *Four Nigerian Farmers and Milieudefensie (Friends of the Earth Netherlands) v. Royal Dutch Shell PLC and Shell Petroleum Development Company of Nigeria Ltd*,[85] four Nigerian farmers filed suit in 2008 against Shell in The Netherlands Business & Human Rights Resource Centre, addressing oil spills in three villages, Oruma, Goi, and Ikot Ada Udo, that occurred between 2004 and 2007. The Court ruled that Shell Nigeria was liable for damage in Oruma and Goi because Shell failed to prove 'beyond reasonable doubt' that sabotage caused the spills. The Court ordered Shell Nigeria and Royal Dutch Shell to install leak detection systems on the Oruma pipelines within one year, with penalties of €100,000 per day for non-compliance. In December 2022, Shell

82 Hakeem Ijaiya and O T Joseph, „Rethinking Environmental Law Enforcement in Nigeria" (2014) 5(4) *Beijing Law Review*https://doi.org/10.4236/blr.2014.54029

83 Luis Gallegos and Daniel Uribe, „The Next Step against Corporate Impunity: A World Court on Business and Human Rights?" (2016) 57 *Harvard International Law Journal* Online Symposium.

84 *Four Nigerian Farmers and Milieudefensie v. Shell* Jan 29, 2021 (Hague Court of Appeal, ECLI:NL:GHDHA:2021:1825).

85 District Court (First Instance): Rechtbank Den Haag (The Hague District Court), January 30, 2013, ECLI:NL:RBDHA:2013:BY9854; Court of Appeal (Key Ruling): Gerechtshof Den Haag (The Hague Court of Appeal), January 29, 2021, ECLI:NL:GHDHA:2021:132.

agreed to pay €15 million in compensation to the affected communities. Another illustrative case of corporate accountability is *Okpabi and others v Royal Dutch Shell Plc and Shell Petroleum Development Company of Nigeria Ltd* (also known as the Bille and Ogale case).[86] It was alleged that years of chronic oil spills have left the communities without clean water, unable to farm and fish, and have posed a serious ongoing risk to public health. The court found that Shell and its former Nigerian subsidiary can be held legally responsible for legacy or historic oil pollution going back many years. The judge found that oil pollution can engage the right to life under the Nigerian Constitution.

The absence of ecocide as a criminalized category within Nigerian or international law creates 'zones of exception,' spaces where devastating acts against populations occur without legal categorization or remedy. Recent efforts by the Stop Ecocide International initiative to establish ecocide as a crime under the International Criminal Court's Rome Statute have gained traction,[87] with legal scholars proposing definitions that would encompass the systematic environmental destruction occurring across Nigeria.[88] However, as of 2024, these efforts have not achieved the ratification necessary for enforcement.

1.5 Toward Recognition and Remedy: Legal and Political Pathways

Addressing Nigeria's ecocidal crisis requires transforming both conceptual frameworks and institutional mechanisms. First, the Nigerian and the international statutory authority must recognise ecocide as a distinct category of crime capable of achieving structural genocidal outcomes. In September 2024, Vanuatu, Fiji, and Samoa formally submitted a proposed amendment to the Rome Statute to include ecocide as the fifth international crime, defining it as unlawful or wanton acts causing severe, widespread, or long-term environmental damage, aiming to hold powerful individuals accountable for

86 *Okpabi and others v Royal Dutch Shell Plc* [2021] UKSC 3; Alame & ors. v. Shell Plc [2025] EWHC 1539 (KB).

87 Stop Ecocide International, *Mass destruction of nature reaches International Criminal Court (ICC) as Pacific island states propose recognition of 'ecocide' as international crime* (Stop Ecocide International, 9 September 2024) https://www.stopecocide.earth/2024/mass-destruction-of-nature-reaches-international-criminal-court-icc-as-pacific-island-states-propose-recognition-of-ecocide-as-international-crime/

88 Haroon Siddique, „Legal experts worldwide draw up „historic" definition of ecocide" *The Guardian* (22 June 2021) https://www.theguardian.com/environment/2021/jun/22/legal-experts-worldwide-draw-up-historic-definition -of-ecocide

the mass destruction of nature.[89] This initiative seeks to add ecocide alongside genocide, crimes against humanity, war crimes, and aggression. The amendment requires support from two-thirds of ICC member states (currently 82 out of 124) to be adopted. Action-wise, Nigeria (as an ICC member state) should publicly support the amendment at the Assembly of States Parties. Nigeria could also co-sponsor the proposal to increase the African voice in the process.

The African Union's developing Malabo Protocol, which would establish an African Court of Justice and Human Rights with jurisdiction over serious crimes, provides another potential avenue for incorporating ecocide provisions that account for African and Nigerian environmental realities.[90]

Second, Nigeria requires comprehensive environmental liability reform that imposes strict standards on extractive industries, eliminates self-reporting mechanisms, mandates independent environmental monitoring, and establishes victim compensation systems not contingent on proving corporate fault. South Africa's National Environmental Management Act provides a comparative model worth examining, as it establishes the 'polluter pays' principle and enables environmental justice litigation by affected communities. Along these lines, there is a need to create a standalone 'Ecocide Act' criminalising mass environmental destruction and provide civil remedies to affected communities.

The case for a standalone national ecocide law in Nigeria rests on at least four distinct legal and normative grounds that the existing fragmented framework cannot provide. First, a dedicated Ecocide Act would resolve the current jurisdictional vacuum by creating a single, primary statute that applies across sectors, including the oil and gas sector, currently excluded from NESREA's mandate. The Act will also consolidate prosecutorial authority in a body with the independence, expertise, and mandate to pursue corporate actors and

89 Craig Kauffman and others, *Vanuatu, Fiji, and Samoa Proposal: Ecocide Amendment to the Rome Statute to Include a Crime of Ecocide* (Eco Jurisprudence Monitor, 2025). https://ecojurisprudence.org/initiatives/vanuatu-fiji-and-samoa-proposed-amendment-to-the-rome-statute-to-include-a-crime-of-ecocide/

90 African Union, *Protocol on Amendments to the Protocol on the Statute of the African Court of Justice and Human Rights* (adopted 27 June 2014, not yet in force).

complicit public officials. The absence of such a statute means that affected communities must currently navigate a patchwork of overlapping and often contradictory instruments (the PIA, the NESREA Act, NOSDRA, and the EIA Act) with no clear hierarchy and no offence specifically calibrated to the scale of group harm that ecocide produces. Second, a national ecocide law would give domestic legal force to the 'structural genocide' theory advanced in this study: it would create a legal category capable of capturing harm that is systematic, group-targeted, and environmentally mediated, without requiring proof of the subjective genocidal intent that makes conventional genocide prosecutions virtually impossible in this context. By criminalising the foreseeable and severe destruction of environments on which specific communities depend for their biological and cultural existence, such a law would operationalise the epidemiological evidence documented in this study as a basis for criminal liability. Third, a national ecocide law would significantly strengthen Nigeria's position in international negotiations and norm-formation processes, including the proposed amendment to the Rome Statute and the African Union's Malabo Protocol discussions: states that have already criminalised ecocide domestically carry greater normative authority in multilateral settings and demonstrate the practical viability of ecocide law to sceptical treaty partners. Fourth, and critically from an environmental justice standpoint, a national law creates enforceable rights that affected communities can invoke before Nigerian courts without dependence on foreign litigation, such as the Dutch proceedings against Shell discussed above, which is both costly and jurisdictionally uncertain. Domestic criminalisation of ecocide would significantly strengthen access to justice in Nigeria. It would enable environmental defenders, civil society organisations, and affected ethnic communities to pursue injunctive relief, criminal prosecutions, and community-centred reparations within a legal framework specifically tailored to the harms they experience. At present, such actors are often forced to rely on tort law or constitutional provisions that were not designed to address large-scale, structural, and group-targeted environmental destruction. A dedicated ecocide framework would therefore provide a more appropriate and effective legal basis for redress.

At least 10 countries already have national ecocide laws, including Vietnam (since 1990),[91] and several former Soviet republics[92] with imprisonment terms of 10-15 years for mass environmental destruction.[93] Some of the liabilities for ecocide apply specifically to health-related consequences. Section 4 of the Criminal Code of Uzbekistan, for example, details serious environmental offences. Articles 196 and 198 contain the greatest parallels to the crime of ecocide. Article 196 states that 'Pollution or damage of land, water, or atmospheric air, resulted in mass disease incidence of people, death of animals, birds, or fish, or other grave consequences – shall be punished with fine from one hundred to two hundred minimum monthly wages or deprivation of certain right up to five years, or correctional labor up to three years.' The provision notes that the same acts which resulted in death of a person, 'shall be punished with arrest from three to six months, or imprisonment up to three years and deprivation of certain right.' Article 198 provides that 'Damage or destruction of crops, forest, or other plants as the result of negligent dealing with fire, resulted in large damage or other grave consequences – shall be punished with fine up to fifty minimum monthly wages, or correctional labor up to one year, or arrest up to three months. Illegal felling of timber or other plants, resulted in large damage – shall be punished with fine from fifty to seventy-five minimum monthly wages, or correctional labor from one year to two years, or arrest from three to six months, or imprisonment up to three years. Intentional damage or destruction of crops, forest, or other plants, resulted in large damage – shall be punished with fine from seventy-five to one hundred minimum monthly wages, or correctional labor from two to three years, or imprisonment up to three years.' In another comparative context, France's *Climate & Resilience Act*, enacted in 2021, addresses ecocide in two distinct ways.[94] First, it establishes ecocide as a criminal offence, or '*délit,*' under national law (Article 231-3), carrying a penalty of up to 10 years' imprisonment for acts that 'cause serious and lasting damage to health, flora, fauna, or the quality of air, soil, or water.'

91 Under Vietnam"s Penal Code of 1990, Article 278, „ecocide, destroying the natural environment", whether committed in time of peace or war, constitutes a crime against humanity.

92 In Russia, the massive destruction of the animal or plant kingdoms, contamination of the atmosphere or water resources, and also commission of other actions capable of causing an ecological catastrophe, shall be punishable by deprivation of liberty for a term of 12 to 20 years.

93 Ecocide Law, *Ecocide / Serious Environmental Crimes in National Jurisdictions* (Ecocide Law) https://ecocidelaw.com/existing-ecocide-laws/.

94 Ibid.

Second, under Article 296, the French government is required to report to Parliament within one year on 'its action in favour of the recognition of ecocide as a crime which can be tried by international criminal courts.' Some liabilities extend to corporates and personal punishments, including penalties of imprisonment for corporate executives and government officials. In February 2024, Belgium's Federal Parliament approved a new penal code that formally recognises ecocide as a crime at both the national and international levels.[95] Under this legislation, ecocide targets the most serious forms of environmental destruction, such as large-scale oil spills, and holds both high-ranking officials and corporations accountable. Individuals may face prison sentences of up to 20 years, while companies could be fined as much as 1.6 million euros. It is not out of place for Nigeria to tow these lines. The law could define clear thresholds: widespread damage (affecting multiple communities) at both the national and international levels; short and long-term damage (lasting 10+ years); severe damage (causing irreversible ecosystem collapse); and consequential effects on health and life. Such laws could be made to apply to both peacetime and conflict-related environmental destruction. Importantly, it must be capable of piercing the corporate veil for environmental crimes and holding individual executives personally liable, not just corporations.

In the same vein, concerted actions should be taken across other legislative lines. A constitutional amendment should be undertaken to elevate environmental rights to a fundamental rights status in the Constitution. This would give impetus to the recognition that environmental destruction can constitute genocide when it targets specific ethnic groups while also creating constitutional standing for communities to sue for ecocide. Other legal reforms could focus on the amendment of the Criminal Code/Penal Code to include ecocide as a distinct offence, strengthening the National Environmental Standards and Regulations Enforcement Agency (NESREA) with prosecutorial powers for ecocide, including the oil and gas sectors, and creating mandatory environmental impact assessments for ecocidal impacts with criminal liability for falsification.

95 Ibid.

Third, a meaningful remedy requires not merely punitive measures or financial compensation but also ecological restoration and recognition of affected communities' rights to determine their environmental futures. The concept of 'environmental reparations' advanced by indigenous rights movements globally suggests frameworks through which corporations and governments might address historical environmental destruction while empowering communities to shape remediation efforts according to local knowledge and priorities.

Lastly, having laws without enforcement makes it redundant. There is, therefore, an associated need to create a specialised Office of the Environmental Prosecutor with autonomy from political interference. Such can be charged with conducting investigations without prior authorisation, freezing assets of suspected ecocide perpetrators and issuing international arrest warrants to organisations. Several agencies are currently tasked with the management of environmental issues in Nigeria. While this is commendable, it is also likely that the multiplicity of enforcement agencies poses a significant challenge to effective ecocide prosecution. Although coordination and liaison with other relevant agencies remain essential, the delineation of mandates and powers must be explicit, unambiguous, and sufficiently robust to prevent jurisdictional conflicts, enforcement gaps, and institutional paralysis that could undermine accountability for environmental crimes.

1.6 Conclusion

Recognizing ecocide as a health-based structural genocidal process in Nigeria demands expanding how scholars, policymakers, and legal institutions understand genocide itself. As this study has demonstrated through the examination of oil pollution, mining contamination, deforestation, and desertification, environmental destruction achieves structural genocidal outcomes, systematically eroding the biological, cultural, and social foundations supporting specific populations' existence. This occurs not through direct mass killing but through accumulated toxic exposure, intergenerational health deterioration, cultural erasure, and elimination of life-sustaining ecosystems.

The health dimension proves particularly critical for establishing both ecocide's structural genocidal character and its legal distinctiveness as a category of harm. When entire populations experience elevated cancer rates,

childhood lead poisoning, respiratory disease clusters, and reproductive health crises directly attributable to environmental destruction, these patterns constitute biological structural genocide even absent explicit intent to destroy groups. The systematic nature of these health impacts, concentrated among specific ethnic communities in identifiable geographic zones, demonstrates that ecocide functions as structural genocide through epidemiological pathways, and that the law must develop frameworks adequate to this reality.

From a legal standpoint, the health-based structural genocide framework advanced here makes several specific contributions. It demonstrates that Nigeria's existing regulatory framework, analysed through the lens of the 'polluter pays' principle, strict liability theory, and the right-to-health jurisprudence of the African Commission on Human and Peoples' Rights (particularly the *Social and Economic Rights Action Centre (SERAC) v Nigeria decision*,[96] in which the African Commission found that Nigeria violated the rights of the Ogoni people by facilitating oil company operations that destroyed their environment and health), is structurally inadequate to address ecocidal harm. It provides a normative and evidentiary basis for reforming Nigeria's constitutional framework, statutory liability regime, and enforcement architecture in ways grounded in comparative legal analysis rather than abstract advocacy. And it establishes the conceptual foundations for a specifically Nigerian contribution to the global development of ecocide law: a health-centred, epidemiologically grounded, postcolonial framework for understanding environmental destruction as a form of group harm that the law is morally and legally obligated to address.

Nigeria's environmental crisis ultimately challenges the international community to develop legal and conceptual frameworks adequate to contemporary forms of group destruction. As climate change, resource extraction, and environmental degradation accelerate globally, the Nigerian case provides urgent lessons about how ecocide accomplishes genocide's aims through ecological mechanisms. Recognizing this reality constitutes not merely academic refinement but rather a moral and political imperative necessary for preventing ongoing and future environmental genocide worldwide.

96 Social and Economic Rights Action Centre (SERAC) & Another v Nigeria (2001) AHRLR 60 (ACHPR 2001).