EXAMINING THE EFFECTIVENESS OF THE NATIONAL LEGAL FRAMEWORK ON THE PROTECTION OF ENVIRONMENT AT THE UPSTREAM STAGE OF OIL AND GAS: A CASE STUDY OF THE OIL AND GAS INDUSTRY OF UGANDA

BY

OMARA MOSES

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FEBRUARY, 2025

DECLARATION

I, OMARA MOSES, declare that this Dissertation is my own work, and has never been submitted to any institution of learning for the award of degree. Where the work of others has been cited, it has been acknowledged

Omara Moses		10TH February, 2025
Researcher	Signature	Date

APPROVAL

I hereby certify that this work entitled "Examining the effectiveness of Existing National Legal Framework on the Environment at the upstream stage: A Case Study of the Oil and Gas Industry of Uganda" has been under my supervision and I have approved it for submission for examination.

Dr. Brain Kalenge ……………………………… ………………………………

Supervisor Signature Dr. Brain Kalenge Date **21/07/25**

DEDICATION

This dissertation is dedicated, first and foremost, to the Almighty God, whose unfailing guidance and grace have sustained me throughout my academic journey.

I also dedicate this work to my beloved family for their unwavering support, encouragement, and sacrifices, which have been a source of strength and inspiration.

In a special way, I dedicate this dissertation to my friends and relatives, whose constant moral support and encouragement have kept me focused.

May this achievement stand as a testament to the collective love, prayers, and support I have received from all of you.

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LIST OF ABBREVIATIONS/ACCRONYMS

EHS	Environmental Health and Safety
EIAs	Environmental Impact Assessments
HSE	Health, Safety, and Environment
NEMA	National Environment and Management Authority
NOSDRA	National Oil Spill Detection and Response Agency
PIB	Petroleum Industry Bill
SEA	Strategic Environmental Assessment
OSHA	Operational safety and health Act

ABSTRACT

This dissertation investigates how Uganda's legal framework addresses environmental protection during the upstream phase of oil and gas activities covering prospecting, exploration, appraisal, and development. Relying on doctrinal and desk-based legal research, it analyses constitutional provisions, petroleum and environmental statutes, subsidiary regulations, policy directives, and judicial decisions. To assess effectiveness, the study applies a framework built around eight indicators: clarity and coherence of laws, institutional capacity, openness and participation, quality of environmental assessments, monitoring and compliance, liability mechanisms, remedies, and access to information and justice. The findings reveal that while the framework demonstrates commendable normative advances, weak enforcement, overlapping mandates, and gaps in public engagement undermine its practical impact, leaving communities and ecosystems vulnerable. The research therefore recommends legislative fine-tuning, stronger institutional collaboration, adoption of cumulative and strategic environmental assessment across project phases, more rigorous disclosure obligations, and the establishment of sanctions and remedies that prioritise ecological restoration and community-centred grievance resolution.

CHAPTER ONE:

INTRODUCTION

1.0 Introduction

This chapter presents the background to the study, problem statement, research objectives, research questions, significance of the study, justification, theoretical frame work and the study scope.

1.1 Background

To start with, it should be noted that Sub-Saharan Africa is the fastest growing oil-producing region in the world, with production having risen by 36% in the past 10 years against a 16% rise worldwide. Analysts say that oil production within the region is set to double by the end of this decade with the United States set to start importing 25% of its petroleum resources from Africa[1].

The African oil boom presents a moment of great opportunity but also many challenges for oil producing countries. On the other hand, the dramatic development failures that have characterized most oil dependent countries indicate that the oil boom has not helped developing countries to fight poverty. Instead it has worsened the poverty situation and environmental degradation. In Africa, oil has mainly benefited African privileged elites, oil companies and their shareholders and Western industrialized countries[2].

Uganda, like many other Sub-Saharan African countries, has great expectations of experiencing an oil boom[3]. The first significant oil exploration in Uganda was done by E.J Wayland, a government geologist who documented substantial hydrocarbon occurrences in the Albertine Graben in the 1920's[4].

[1] Saad Quayyum, Nikola Spatafora, Sanghamitra Mukherjee, and Hamza Mighri, "Growth in Sub-Saharan Africa is Diverging", 2024. https://www.imf.org/en/News/Articles/2024/11/14/cf-growth-in-sub-saharan-africa-is-diverging . Accessed 8/19/2025
[2] Catholic Relief Services, "The African Oil Boom: Peril or Opportunity for Africa's Poor People?, https://www.worldhunger.org/articles/03/global/crs.htm Accessed, 8/19/2025.
[3] Ibidi.
[4] Directorate of Petroleum, "Petroleum Exploration in Uganda" https://www.petroleum.go.ug/index.php/who-we-are/who-weare/petroleum-exploration-

The Albertine region, which forms the northernmost part of the western arm of the East Africa Rift System, is the principle prospective area for oil reserves in Uganda. It stretches from the boarder with Sudan in the north to Lake Edward in the south, covering an area of 20,000 sq. km., and extends into the Democratic Republic of Congo.

The pace of oil exploration in Uganda was interrupted during the Second World War, resuming more seriously in the early 1980s with the acquisition of aeromagnetic data across the entire Graben region. Seismic data was first acquired in the area in 1998 and, subsequently, during 2001, 2003 and 2005[5].

It should also be noted that Uganda's oil and gas sector has emerged as a cornerstone of the country's economic growth strategy, largely driven by the discovery of significant oil reserves in the Albertine region in western Uganda[6]. This discovery has positioned Uganda as a potential oil producer on the global stage, spurring government initiatives and private sector investments to develop the industry[7]. The expected benefits include increased national revenue through oil exports, enhanced employment opportunities, and the stimulation of ancillary industries such as transportation, construction, and logistics[8]. Furthermore, the sector is anticipated to contribute to improved foreign exchange earnings, strengthening the country's balance of payments and facilitating economic diversification[9].

The oil industry comprises of two parts, the 'upstream' which is the exploration and production sector of the industry, and, downstream" which

history#:~:text=The%20first%20contribution%20to%20the,during%20the%20Second%20World%20War. 8/19/2025

[5] Arthur Bainomugisha Hope Kivengyere Benson Tusasirwe, "Escaping The Oil Curse And Making Poverty History A Review of the Oil and Gas Policy and Legal Framework for Uganda". ACODE Policy Research Series, No. 20, 2006.

[6] Government of Uganda, The Petroleum (Exploration, Development and Production) Act (Uganda Printing and Publishing Corporation 2013).

[7] EPRC, 2019 'Economic Policy Research Centre' https://eprcug.org › publication › economic-policy-research

[8] Barungi, B, Kasirye, I, and Muhumuza, T, Oil Governance in Uganda: Opportunities and Challenges (Economic Policy Research Centre 2020).

[9] World Bank, Oil and Gas Development in East Africa: Regional Perspectives on Opportunities and Challenges (World Bank Group 2021).

deals with refining and processing of crude oil and gas products as well as their distribution and marketing.[35]

In this research, my focus shall be the upstream stage which involves exploration and production. Exploration means the undertaking of activities for the purpose of discovering petroleum and includes geological, geophysical, geochemical and geotechnical surveys and drilling of wells for the purpose of discovery.[36]

Production on the other hand means all activities including primary recovery using the naturally occurring pressures, secondary or tertiary recovery techniques required for recovery of petroleum from the reservoir within the earth, and the separation and treatment of the oil in bulky vessel, craft or vehicle, as a commodity.[37]

However, the rapid development of Uganda's oil and gas industry has not been without challenges, particularly in areas related to environmental sustainability. The extraction and processing of petroleum resources inherently carry risks such as oil spills, deforestation, habitat destruction, water contamination, and increased greenhouse gas emissions[10].

It should further be noted that these environmental risks pose threats to biodiversity in the ecologically sensitive Albertine, a region home to several national parks and unique wildlife species. Additionally, public health concerns, including air and water pollution and the potential displacement of communities, further complicate the sector's growth [11].

The industry involves high-risk activities such as drilling, transportation of hazardous materials, and operations in potentially explosive environments. Ensuring the safety and health of workers requires strict adherence to safety

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[10] National Association of Professional Environmentalists (NAPE), Oil in Uganda: Emerging Issues in Environmental and Social Accountability (NAPE 2018).
[11] United Nations Environment Programme (UNEP), Sustainable Management of Resources in the Extractives Sector: A Case of Uganda (UNEP Report 2019).

environmental protocols, continuous training, and monitoring of workplace conditions[12].

To address these challenges, Uganda has established a comprehensive legal and policy framework aimed at governing the oil and gas sector.

For the purpose of this research, I will limit the discussion to the following laws:-

1. Constitution of the Republic of Uganda, 1995 as amended.
2. Mining and Minerals Act Cap. 159
3. National Environment Act Cap. 181
4. Government of Uganda, The Petroleum (Exploration, Development and Production) Act Cap 162
5. *Public Finance Management Act Cap 171*
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10. The Petroleum (Exploration, Development and Production) Regulations, 2016
11. The National Environment (Environmental and Social Assessment) Regulations, 2020

[12] Mugyenyi, O, and Katamba, A, Enhancing Environmental Governance in Uganda's Oil and Gas Sector (Advocates Coalition for Development and Environment 2020).

12. National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2001

13. National Environment (Waste Management) Regulations, 2020

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14. National Environment Management Policy, 2019

15. National Environment and Climate Change Policy, 2015

16. National Land Use Policy, 2007

17. National Wildlife Policy, 2014

18. National Water Policy, 1999

International/Regional Policy Commitments (binding through ratification)

19. African Charter on Human and Peoples' Rights (Article 24: Right to a satisfactory environment)

20. East African Community (EAC) Protocol on Environment and Natural Resources Management, 2006

21. Paris Agreement (2015)

22. Convention on Biological Diversity (CBD)

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23. Petroleum Sector Environment, Health, Safety and Security (EHSS) Management Framework (developed by the Petroleum Authority of Uganda)

24. Strategic Environmental Assessment (SEA) for the Oil and Gas Sector in the Albertine Graben (NEMA, 2013)

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26. National Biodiversity Strategy and Action Plan II (2015–2025)

General Environmental Implementation Instruments

27. National Environment Action Planning Framework

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31. Petroleum Authority of Uganda (PAU)

32. National Environment Management Authority (NEMA)

33. Uganda Wildlife Authority (UWA)

34. Ministry of Energy and Mineral Development (MEMD)

To begin with, The Constitution of the Republic of Uganda provides the basic principles as far as environment protection and conservation is concerned.

Secondly, The Petroleum (Exploration, Development and Production) Act and its regulations provides guidelines on licensing, exploration, and production, while emphasizing environmental protection and community involvement.[13]

Thirdly, The National Environment Act and its regulations mandates Environmental Impact Assessments (EIAs) before the commencement of oil-related activities and imposes penalties for non-compliance [14].

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[13] Government of Uganda, The Occupational Safety and Health Act (Uganda Printing and Publishing Corporation 2006).

[14] United Nations Environment Programme (UNEP), Sustainable Management of Resources in the Extractives Sector: A Case of Uganda (UNEP Report 2019).

The Government of Uganda embarked on a process to ensure that the resources are utilized sustainably to create lasting value and environmental sustainability for Ugandans in 2006 when commercial quantities of oil and gas resources were confirmed. This process dates as far back as 2008 when the National Oil and Gas Policy was put in place. Other policies shall be discussed in the subsequent chapters.

To further address environmental issues associated with the petroleum industry in the subsequent years, the country's laws stated above were updated. In addition, new laws to address key issues from the industry such as petroleum waste management, climate change, and oil spills have also been enacted.

It should be noted that the government of Uganda developed several tools to facilitate the monitoring and management of environmental issues from oil and gas activities. These include a Strategic Environmental Assessment (SEA) of the oil and gas activities in the Albertine Graben which was approved by Cabinet in 2013.

The Republic of Uganda was among the first countries in Africa to undertake an SEA for its oil and gas projects in the oil and Gas Industry and it was the first time that such a comprehensive SEA was being undertaken for a project of any kind in Uganda.

The Strategic Environmental Assessment (SEA) brought out a holistic view of the key environment and social issues from oil and gas activities such as petroleum activities in protected and environmentally sensitive areas; co-existence with local communities; and management of discharges and emissions (including potential oil spills) from the petroleum industry.

These key issues were integrated into the policies, plans and programs that were consequently developed to govern the industry. From the onset, highly sensitive environments were mapped and avoided during the planning for oil and gas infrastructure; and detailed environmental and socio-economic baseline data was acquired to facilitate monitoring of impacts from oil and gas operations.

The study therefore seeks to evaluate the effectiveness of those existing laws as far as protection of the environment is concern during the exploitation and production of oil and gas in Uganda.

1.2 Problem Statement

Insufficient Studies of The Laws. While Uganda's oil and gas sector holds significant potential for driving economic growth, the implementation of the national legal framework designed to govern environmental issues has not been sufficiently studied in the context of its actual impact on the industry's operations[15].

Additionally, despite these existing frameworks, there are significant concerns about their implementation and enforcement as far as environmental protection is concern. Inadequate institutional capacity, limited funding for regulatory bodies, and weak coordination among stakeholders often hinder effective monitoring and compliance [16].

Outdated Laws. Furthermore, some laws are perceived as outdated or insufficient to address emerging issues in the rapidly evolving oil and gas sector. For instance, the lack of comprehensive regulations on oil waste management and emergency response mechanisms has raised questions about the industry's preparedness to handle potential disasters [17].

Environmental Degradation. While the sector promises economic gains, critics argue that over-reliance on oil revenues could expose Uganda to the resource curse, characterized by environmental degradation and hence the purpose of this research

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[15] Petroleum Authority of Uganda (PAU). Environment Protection in Uganda's Oil and Gas Sector, retrieved 8/19/2025. https://www.pau.go.ug/environment-protection-in-ugandas-oil-and-gas-sector/

[16] Muhwezi, W, and Namirembe, M, 'Institutional Gaps in Managing Uganda's Oil Wealth' (2020) 8(2) African Journal of Public Policy 35–48.

[17] National Association of Professional Environmentalists (NAPE), Oil in Uganda: Emerging Issues in Environmental and Social Accountability (NAPE 2018).

There are concerns that the existing legal provisions may not adequately address the complex and evolving challenges posed by the oil and gas industry during the exploration and production stages, particularly in relation to environmental degradation[18].

This study seeks to examine how the existing national legal framework influences the environment using the oil and gas industry in Uganda as a case study.

1.3 Specific Objectives

The specific objectives of the study are:

1. To examine the effectiveness of Uganda's national legal framework in safeguarding environment during the upstream stage of oil and gas in the Uganda's oil and gas industry.

2. To identify gaps in the existing national legal framework that hinder the effective regulation of the oil and gas industry in the environmental protection during the upstream stage of Uganda's oil and gas.

3. To recommend legal and policy reforms to improve the protection of environment during the upstream stage in Uganda's oil and gas sector.

1.3.1 Research Questions

1. What is the effectiveness of the existing Uganda's national legal framework in safeguarding environment during the upstream stage in the oil and gas industry?

2. What gaps exist in the existing national legal framework for effective regulation of the oil and gas industry during the upstream stage in safeguarding environment?

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[18] Ministry of Energy and Mineral Development "National Oil and Gas Policy For Uganda" 2008. https://businesslicences.go.ug/uploads/documents/NATIONALOILANDGASPOLICYFORUGANDA. retrieved 8/19/2025

3. What are the legal and policy reforms to improve the protection of environmental during upstream stage of oil and gas in Uganda's oil and gas sector?

1.4 Scope of the Study

This study will focus on the oil and gas industry in Uganda, specifically the environment while examining the national legal framework from 2006 to date such as Constitution of the Republic of Uganda, 1995 as amended, Mining and Minerals Act Cap. 159 , National Environment Act Cap. 181, Government of Uganda, The Petroleum (Exploration, Development and Production) Act Cap 162, Public Finance Management Act Cap 171, The Uganda Wildlife Act Cap 315 , The Occupational Safety and Health Act Cap 231, The Land Act, Cap. 236, and Access to Information Act Cap 95. This study shall also look into the Statutory Instruments such as the Petroleum (Exploration, Development and Production) Regulations, 2016, the National Environment (Environmental and Social Assessment) Regulations, 2020, National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2001, and National Environment (Waste Management) Regulations, 2020.

There is Cross-Cutting National Policies that this study shall look into such as National Environment Management Policy, 2019, National Environment and Climate Change Policy, 2015, National Land Use Policy, 2007, and the National Wildlife Policy, 2014.

The International/Regional Policy Commitments (binding through ratification) that this study shall look into includes the African Charter on Human and Peoples' Rights (Article 24: Right to a satisfactory environment), East African Community (EAC) Protocol on Environment and Natural Resources Management, 2006, Paris Agreement (2015) and Convention on Biological Diversity (CBD)

The Implementation Frameworks and Strategies or the Sector-Specific Implementation Instruments in this study shall include Petroleum Sector Environment, Health, Safety and Security (EHSS) Management Framework (developed by the Petroleum Authority of Uganda), Strategic Environmental Assessment (SEA) for the Oil and Gas Sector in the Albertine Graben (NEMA, 2013), Albertine Graben Environmental Monitoring Plan (PAU & NEMA), National Biodiversity Strategy and Action Plan II (2015–2025)

Lastly, the General Environmental Implementation Instruments in this study shall include the National Environment Action Planning Framework, the National Oil Spill Contingency Plan, 2018, the Environmental and Social Management Framework (ESMF) for oil-related infrastructure projects and the National Environment (Environmental Audit) Regulations, 2020

The geographical scope will include the Albertine region, the primary region of oil exploration, production, and development in Uganda.

The time frame for the study will cover the period from the first oil discoveries in 2006 to the present day, focusing on legal developments, policy changes, and the practical effects of the regulatory framework on the oil and gas industry.

The resources for needed to carry out the study shall require analysis of the Constitution, statutes, case law and regulations that govern or illustrate the subject matter. Additionally, I shall use legal research tools like case digests, or citations.

1.5 Justification of the Study

The oil and gas sector in Uganda is intended to play a pivotal role in the country's economic transformation. However, as the industry develops, it is essential to critically examine the legal frameworks that govern it to ensure that the benefits derived from it do not come at the expense of the environment protection during the exploration stage[19]. It should be noted that there is limited research on the effectiveness of Uganda's legal frameworks in

[19] Petroleum Authority of Uganda (PAU). Environment Protection in Uganda's Oil and Gas Sector, retrieved 8/19/2025. https://www.pau.go.ug/environment-protection-in-ugandas-oil-and-gas-sector/

addressing these critical issues within the context of the oil and gas industry[20].

This study is justified by the need to assess whether Uganda's existing legal frameworks as mentioned above are sufficient to mitigate the negative effects of the industry on the environment. Furthermore, it is necessary to understand the gaps in policy and regulation that may hinder the sector's sustainability and long-term success in line with the environmental protection.

1.6 Significance of the Study

This study will be significant in providing a comprehensive analysis of the national legal framework in exploration stage of oil and gas of Uganda's oil and gas sector and its impact on environment. By identifying key gaps in the legal framework and evaluating its effectiveness, the study will contribute to the development of more strong and effective policies for managing the sector's growth.

The findings may inform government policy, corporate social responsibility strategies of oil companies, and community engagement efforts. Ultimately, the study aims to ensure that Uganda's oil and gas resources contribute positively to minimizing adverse impacts on the environment.

Furthermore, civil society organizations and environmental advocacy groups will gain evidence-based knowledge to support their campaigns for sustainable development, environmental protection, and human rights.

Local communities, as key stakeholders, will be empowered with information to advocate for their rights, demand greater transparency, and participate actively in decision-making processes that affect their environment.

Academic institutions and researchers will find this study useful as a foundational resource for further exploration into oil governance, sustainable

[20]Julius Byaruhanga and Arnim Langer, On the right track? An analysis of the implementation of oil and gas sector local content policies in Uganda. The Extractive Industries and Society. doi:10.1016/j.exis.2025.07.006 10.1016/j.exis.2025.07.006.

energy policies, and economic reforms in resource-rich countries. The private sector, including investors, will be better positioned to assess investment risks and opportunities within a more predictable and secure regulatory environment.

1.7 Theoretical Review

The theoretical framework for this study draws on several key theories related to environmental regulation.

1.7.1 Sustainable Development Theory

The concept of sustainable development encompasses economic, ecological and social parameters. The economic approach focuses on generating maximum income/economic growth while maintaining the stock of assets or capital[21]. The social concept is people-oriented and seeks to maintain the stability of social and cultural systems leading to human capital formation[22].

This theory posits that economic growth should not come at the expense of environmental health and social equity. It advocates for policies that integrate environmental protection, social well-being, and economic growth and in this case the major focus is the environmental protection[23].

In this case, I will only focus on the ecological approach since I am looking at environmental aspect of oil and gas.

The ecological view stresses the stability of biological and physical systems and their protection and management for posterity.

Sustainable Development Theory (SDT) serves as a crucial lens for examining how effectively environmental laws govern oil and gas operations while balancing economic growth, ecological preservation, and social welfare. Emerging from the Brundtland Commission[24] " and later integrated into

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[21] United Nations in Uganda, Sustainable Developmental Goal 3. https://uganda.un.org › sdgs › 3 retrieved 8/19/2025.
[22] Ibid.
[23] Akhter Ali, Mohd & Kamraju, M. & Sonaji, Devkar. 'Economic Policies for Sustainable Development: Balancing Growth, Social Equity, and Environmental Protection' 2023. 03. 23-28.
[24] Our Common Future" (1987)

global frameworks like the UN Sustainable Development Goals (SDGs), SDT emphasizes long-term ecological integrity, equitable resource distribution, and inclusive governance.

Core Principles of Sustainable Development in Oil & Gas Regulation to be relied upon in this study.

Balancing Economic, Environmental, and Social Needs

The principle provides that effective laws must ensure that energy extraction does not compromise ecosystems. For example the Uganda Government policy discourages excessive emissions while funding renewable energy projects, aligning with SDT's integrated approach.

Intergenerational Equity and the Precautionary Principle

This principle emphasis that Legal frameworks should prevent irreversible harm, ensuring future generations inherit a viable environment. An example can be drawn from the Canada's Impact Assessment Act (2019) which requires long-term environmental reviews before approving oil projects.

However, the principle has also failed in many ways. For example Brazil's Amazon oil exploration often proceeds without adequate studies, risking biodiversity loss.

Public Participation and Environmental Justice

This principle demands that affected communities have a voice in decision-making. The Uganda's constitution ensures public access to environmental data and legal recourse.

Key Challenges in Aligning Laws with Sustainable Development

Corporate Influence from other countries: Lobbying often weakens regulations more especially from the developed countries such as United states of America.

Enforcement Gaps: it is noted that the developing nations lack resources to monitor oil companies. Addionally, the corruption levels have affected the implementation.

Conclusion:

In conclusion toward more sustainable Legal Frameworks, For environmental laws to truly protect ecosystems and communities, they must enforce strict penalties for violations, Include marginalized groups in policymaking, Promote renewable energy transitions rather than perpetuating fossil fuel dependence.

1.8 ENVIRONMENTAL JUSTICE THEORY

Environmental justice is generally defined as a set of rights that should be aspired to, sought after, or demanded, in terms of both substantive conditions for environmental health and of procedural rights which principally include access to information and decision making. Theory evaluates whether environmental laws fairly protect marginalized communities from the harmful effects of oil and gas activities.

The following two definitions provide examples[25]. The Office of Environmental Justice of the United States Environmental Protection Agency (USEPA) defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies[26].

The theory focuses on three key principles distributional equity, procedural fairness, and recognition of vulnerable groups. This theory focuses on the fair distribution of environmental benefits and burdens, particularly among marginalized communities[27].

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[25] Stephens, ... C. Church, in International Encyclopedia of Public Health, 2008

[26] The Office of Environmental Justice of the United States Environmental Protection Agency

[27] Stephens, ... C. Church, in International Encyclopedia of Public Health, 2008

By applying this theory, we can assess whether existing laws effectively prevent environmental harm or perpetuate systemic inequalities.

Distributional Justice: Unequal Exposure to Environmental Hazards

Environmental laws often fail to address the disproportionate burden of pollution on low-income, Indigenous, and minority communities near Oil and Gas operations.

Sacrifice Zones: Many legal frameworks allow heavy industrial activity in marginalized areas, leading to higher rates of respiratory diseases, water contamination, and land degradation.

Global Disparities: In developing nations like Uganda weak enforcement leaves Indigenous groups exposed to oil spills and gas flaring, despite existing environmental laws.

Cumulative Impacts: Regulations like the Uganda for example NEMA Act often assess pollution sources in isolation, ignoring the combined effects of multiple Oil and Gas projects on vulnerable populations.

Procedural Justice: Exclusion from Decision-Making

Effective environmental laws should ensure meaningful public participation, yet these projects frequently bypass community input.

Limited Public Participation: In the Uganda the The Petroleum (Exploration, Development and Production) Act requires environmental impact assessments, but marginalized communities often lack the resources to engage effectively in hearings.

Lack of Transparency: Many countries do not mandate free, prior, and informed consent for Indigenous lands, allowing extraction projects without consultation.

Corrective Justice: Weak Enforcement and Accountability

Even when laws exist, enforcement is often inadequate, leaving affected communities without recourse.

Barriers to Legal Action: Poor communities struggle to challenge corporations due to high litigation costs and lengthy legal processes in addition to the lack of transparency in the current courts system of Uganda.

Insufficient Penalties: Fines for oil spills for example the deepwater Horizons are often minor compared to ecological damage, and funds rarely reach impacted communities.

Global Environmental Justice: Transboundary Inequities

Oil and gas companies exploit regulatory gaps between nations, leading to environmental racism where pollution is outsourced to poorer countries.

Double Standards: Companies like Shell operate with stricter environmental controls in Europe than in Africa, Uganda where regulations are weaker. For example, there are fewer Shell petrol stations in Norhern Uganda.

Climate Justice: Oil and gas laws rarely account for the disproportionate climate impacts on vulnerable nations, despite their minimal contribution to global emissions.

Conclusion: Reforming Laws Through an Environmental Justice theory Lens

Having looked at the challenges and for environmental laws to be truly effective, they must Prevent disproportionate harm to marginalized groups, Guarantee inclusive participation in regulatory decisions and Strengthen accountability for corporate violations.

Environmental Justice Theory reveals that many existing laws fail to protect the most vulnerable, necessitating reforms such as Mandating cumulative impact assessments in permitting, enforcing FPIC for Indigenous communities and imposing stricter penalties for environmental violations.

In conclusion, by integrating Environmental Justice principles, policymakers can ensure that environmental laws genuinely safeguard people not just industry interests.

1.9. SYNOPSIS OF CHAPTERS

This research comprises of an introduction, background to the study, problem statement, specific objectives, research questions, scope, significance, and justification of the study Chapter One.

Chapter two includes a theoretical review focusing on sustainable development theory and environmental justice theory, along with a literature review.

Chapter three of this work provides for the methodology. This study employs doctrinal legal research and desktop research to critically analyze Uganda's oil and gas legal framework, focusing on its implications for environmental protection, health, and economic growth. The methodologies rely on statutes, case law, scholarly works, and institutional reports accessible through libraries and online databases.

Chapter four provides for the presentation and analysis of data and lastly chapter five which provides for the recommendations and the conclusions

CHAPTER TWO

LITERATURE REVIEW

1.9 Literature Review

Uganda’s oil and gas industry has experienced significant growth, necessitating a robust national framework for environmental protection to mitigate potential adverse effects. This literature review examines the existing policies, legal structures, and institutional frameworks governing environmental protection within Uganda’s oil and gas sector.

It should be noted that is not in dispute that although there is a lot of literature on environmental protection, there is not a lot when it comes to the area of oil and gas exploration and production, so much so in the local context.

Even though, the literature present may not easily be intelligible due to the novelty of its substance and in some cases has research gaps which need to be filled. Notwithstanding the above, there are some the vital literatures that shall be examined:

This literature review examines the effectiveness of Uganda’s national legal framework in safeguarding the environment at the exploitation and protection stages of oil and gas in the oil and gas sector, assessing how well existing laws and regulations mitigate risks associated with environment.

It also identifies gaps in the current legal framework that hinder effective regulation, highlighting weaknesses that may compromise environmental protection and health standards.

Finally, the review explores potential legal and policy reforms aimed at strengthening the regulatory framework to enhance environmental sustainability in Uganda’s oil and gas sector.

1.9.1 Existing Literatures on the effectiveness of Uganda's national legal framework in safeguarding environment in the oil and gas industry in the upstream stage

Uganda's oil and gas industry has gained significant attention following the discovery of commercially viable petroleum reserves in the Albertine Graben[28].

This literature review examines the effectiveness of Uganda's legal framework in safeguarding environmental issues in the oil and gas sector in the upstream stage, focusing on existing laws, enforcement mechanisms, challenges, and recommendations.

KASIMBAZI, EMMANUEL, "ENVIRONMENTAL REGULATION OF OIL AND GAS EXPLORATION AND PRODUCTION IN UGANDA". JOURNAL OF ENERGY & NATURAL RESOURCES LAW

Emmanuel Kasimbazi, a prominent scholar in environmental and energy law, has extensively examined the legal frameworks governing oil and gas activities, particularly in Uganda and East Africa. His research critically assesses whether existing laws sufficiently protect the environment and proposes actionable reforms.

Kasimbazi focused on the environmental regulation of oil and gas exploration and production in Uganda.

Kasimbazi argues that while many laws exist to protect the environment, their effectiveness is often undermined by poor enforcement, political interference, and economic priorities. The study calls for stricter regulatory mechanisms, public awareness, and international cooperation to ensure sustainable oil and gas exploitation.

His article begins by providing an overview of the process of oil exploration and production in relation to the Ugandan situation. The article proceeds by reviewing the status of oil exploration in Uganda. It identifies the potential

[28] Government of Uganda, The Petroleum (Exploration, Development and Production) Act (Uganda Printing and Publishing Corporation 2013).

environmental risks and dangers and examines the application of environmental impact assessment.

Its objective is to examine the legal tools of the environmental management of petroleum exploration and production in Uganda[29]. The learned author observes that exploration and production activities have the potential to affect the environment's components such as ground water quality, surface water quality, ground air quality, terrestrial and habitat setting.

He also noted that in fact people living near the Exploration and Production areas are already affected by a strong bad smell from the mud pits dug during exploration.[26]

Kasimbazi's work underscores that many African countries, including Uganda, have established environmental laws to regulate oil and gas operations. However, their effectiveness is often undermined by, Weak enforcement mechanisms, Regulatory overlaps and conflicts and Lack of stringent penalties for violations

KEY LEGAL INSTRUMENTS ANALYZED IN THE KASIMBAZI

In his article, he analysed, Uganda's Petroleum (Exploration, Development, and Production) Act (2013), National Environment Act (2019), Environmental Impact Assessment (EIA) Regulations and finally the international conventions (e.g., Paris Agreement, UNEP Guidelines)

Kasimbazi argues that while these laws exist, implementation remains inconsistent, leading to environmental degradation in oil-rich regions like the Albertine Graben.

In His Publication, I Identified Challenges In The Implementation Of Those Regulations As Follows: -

Insufficient penalties for environmental violations

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[29] Kasimbazi, Emmanuel, "Environmental Regulation of Oil and Gas Exploration and Production in Uganda". Journal of Energy & Natural Resources Law, 30(2), 185–221. https://doi.org/10.1080/02646811.2012.11435291

According to him, Fines for oil spills and gas flaring are too low to deter misconduct. Additionally, Judicial delays hinder timely resolution of environmental disputes.

Inadequate enforcement by regulatory agencies

He argues that Agencies such as Uganda's National Environment Management Authority (NEMA) and the Petroleum Authority of Uganda (PAU) often lack sufficient funding, technical capacity, and political independence to enforce compliance. Corruption and political interference further weaken regulatory oversight.

Weak public participation & transparency

According Kasimbazi, Many oil projects proceed without meaningful community consultation, violating the principle of Free, Prior, and Informed Consent (FPIC). Additionally, Environmental audit reports and oil contracts are often kept confidential, limiting public accountability.

Fragmented institutional coordination

Kasimbazi argues that multiple agencies (energy, environment, local governments) often duplicate or contradict each other's mandates, creating regulatory confusion.

KASIMBAZI'S RECOMMENDATIONS FOR STRENGTHENING ENVIRONMENTAL PROTECTION

Legal and Policy Reforms

Promoting sustainable extraction practices

He suggested the Adoption of cleaner technologies for example carbon capture, reduced flaring. Additionally, he suggested the Implementation of mandatory remediation funds for post-extraction environmental restoration.

Enact stricter pollution control laws for example mandatory carbon emission limits, zero-flaring policies. Additionally, Mandate real-time environmental monitoring with publicly accessible data. And lastly Harmonize national laws with international standards for example UNEP's Environmental Rule of Law.

Strengthening enforcement mechanisms

Increase funding and autonomy for regulatory bodies for example NEMA and Impose severe penalties for example revoking licenses for repeat offenders. He also emphasized establishment of specialized environmental courts to expedite cases.

Enhancing public engagement & transparency

In his publication, he encouraged legal community consultations before project approvals , disclose all oil contracts and EIA reports to the public and supporting environmental NGOs and whistle-blowers in monitoring compliance.

Regional cooperation in East Africa

As a solution to the prevailing challenges, he suggested the development of uniform environmental standards for cross-border oil projects for example the east African pipe line. Lastly, he suggested the Strengthening of the East African Community (EAC) environmental protocols.

GAPS INDENFIED IN THE PUBLICATION OF KASIMBAZI.

Upon critical perusal and in addition to the already discussed challenges, I discovered that his literature is so brief. He only identifies legal and environmental issues raised by oil and gas exploration and production without giving any remedial practical approaches required to protect the environment, which leaves room for further research.

CONCLUSION

Kasimbazi's work demonstrates that laws alone cannot protect the environment enforcement, transparency, and public participation are equally crucial. His recommendations provide a blueprint for policymakers to Close regulatory loopholes, empower oversight institutions and ensuring sustainable oil and gas development

THE PUBLICATION OF COLLINS AHIMBISIBWE. "ASSESSMENT OF THE OIL AND GAS EXPLORATION INDUSTRY'S COMPLIANCE WITH LOCAL, REGIONAL AND INTERNATIONAL LAWS ON ENVIRONMENTAL HEALTH:

Collins Ahimbisibwe examined the extent of compliance to environmental health in the oil and gas industry in Uganda. The research findings showed that the environmental health and safety quality standards in the law currently are also outdated and need review[30].

METHODY EMPLOYED IN THE RESEARCH PUBLICATION

The study employs a mixed-methods approach, combining case studies, regulatory reviews, and stakeholder interviews to evaluate compliance levels. Examples from different regions reveal varying degrees of adherence, with some companies exceeding legal requirements while others violate them due to weak oversight or economic pressures. Data on oil spills, gas flaring, and improper waste disposal demonstrate recurring challenges. These issues are exacerbated in developing nations, where regulatory institutions may lack resources or political support to enforce penalties effectively.

This study assesses the sector's compliance with local, regional, and international environmental laws, examining whether regulations effectively mitigate ecological and public health impacts. By analysing legal frameworks, industry practices, and enforcement mechanisms, the research highlights gaps between policy and implementation. The findings aim to inform stakeholders including governments, corporations, and communities—on improving sustainability in hydrocarbon extraction.

[30] Collins, Ahimbisibwe. "Assessment Of the Oil and Gas Exploration Industry's Compliance with Local, Regional and International Laws on Environmental Health: A Case Study of The China National Offshore Oil Corporation." PhD diss., Institute of Petroleum Studies-Kampala, 2022.

KEY OBSTACLES TO COMPLIANCE AS PER THE PUBLICATION

According to Collins, although there is a monitoring plan, the implementation is still weak for example it is suggested that there needs to be a law in place to ensure that the National Oil and Gas Policy of 2008 is enforced. The researcher recommends that there is need to enhance compliance with environmental health and safety principles through strengthening the legal framework such that it is preventative in nature as opposed to being reactive.

Environmental health concerns linked to oil and gas activities include air and water pollution, habitat destruction, and greenhouse gas emissions. Local laws, such as national environmental protection acts, often set baseline standards, while regional agreements promote cross-border cooperation. International conventions, like the Paris Agreement and UN Sustainable Development Goals, provide broader guidelines. However, disparities in enforcement and corporate accountability frequently undermine these regulations, leading to non-compliance and ecological harm.

Key obstacles to compliance include corruption, inadequate monitoring systems, and conflicts between economic growth and environmental protection. Some governments prioritize revenue generation over ecological safeguards, leading to lax enforcement. Meanwhile, communities near extraction sites often bear the brunt of health impacts, with limited legal recourse. The study underscores the need for stronger transparency measures, such as mandatory environmental impact assessments (EIAs) and public disclosure of industry practices, to hold companies accountable.

RESEARCH GAPS AS PER THE PUBLICATION

The research gap in this study lies in the inadequate integration of local governments in environmental health and safety (EHS) monitoring, as the current framework centralizes oversight within national agencies like NEMA while sidelining district-level officers who are directly engaged with affected communities.

Additionally, while the study identifies outdated environmental laws, it does not comprehensively analyze specific legal gaps or propose concrete regulatory reforms based on international best practices which the current study seek to address.

RECOMMENDATION FROM THE PUBLICATION

To enhance compliance, the research recommends stricter enforcement of existing laws, capacity-building for regulatory agencies, and greater corporate responsibility through sustainability initiatives. International collaboration can harmonize standards, while grassroots advocacy ensures community voices are heard.

By aligning industry practices with environmental health laws, the oil and gas sector can reduce its ecological footprint and contribute to a more sustainable energy future. This study serves as a call to action for policymakers and industry leaders to prioritize long-term planetary health over short-term profits.

THE PUBLICATION OF GAVIN HILSON. "THE ENVIRONMENTAL IMPACT OF SMALL-SCALE GOLD MINING IN GHANA: IDENTIFYING PROBLEMS AND POSSIBLE SOLUTIONS

Gavin Hilson[31] has contributed extensively to understanding the societal and environmental impacts of extractive industries, including oil and gas. His work emphasizes the need for sustainable practices and policies to mitigate negative environmental consequences.

As he noted, the small-scale mining activities of Ghana have also been responsible for the clearance of vast expanses of forest, which in turn has left

[31] Gavin Hilson. "The Environmental Impact of Small-Scale Gold Mining in Ghana: Identifying Problems and Possible Solutions. The Geographical Journal , Mar., 2002, Vol. 168, No. 1 (Mar., 2002), pp. 57-72

potentially productive land bare and exposed to agents of erosion mainly, intense rainfall and wind[32].

According to him, an estimated 15 000 ha are potentially affected by resident small scale mining activities[33]. Significant portions of this land have been damaged unnecessarily, as miners have gone in search of ore without knowledge of the precise locations of gold deposits.

As he noted that there is intensive small-scale gold mining throughout the country, it is crucial that effort is made to improve the environmental management of operations. In the past 10-15 years, the Ghanaian government has undertaken a series of initiatives in an attempt to improve the efficiency of resident small-scale gold-mining processes and the overall organization of the industry.

According to him, there were several government interventions although he clarified that most of the initiatives undertaken by the Ghanaian government to improve the efficiency of the gold mining operations have not been environmental per se, but rather actions directed at regularizing the section and improving the organization of operations, necessary prerequisites, nonetheless, for facilitating upgrades in environmental management. Since the passing of the small-scale Gold Mining law, the Ghanaian Minerals commission, which has been assigned the task of promoting environmental Improvements in resident small scale gold mining operations, has made a concerted effort to regularize operations, and to provide the necessary financial and technician support to the miners.

Gavin Hilson's publications examines the environmental impacts of small-scale gold mining in Ghana and he prescribes a series of recommendations for improving environmental performance in the industry. Since the enactment of the Small-Scale Gold Mining Law in 1989, which has effectively

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[32] Amegbey N A, Dankwa J B K and Al-Hassan 1997. Small scale mining in Ghana- Techniques and Environmental Considerations International Journal pf surface Mining, Reclamation and Environment 11 135-8

[33] Word Bank 1995 Staff appraisal report, Republic of Ghana. Mining sector development and environmental project. World Bank report no. 13881-GH, Industry and Energy Operations, West Central Africa Department, Africa Region, World Bank, Africa

legalized small-scale gold mining in the country, industrial operations, collectively, have made important contributions to national gold output, forei exchange earnings and employment.

He concluded that small-scale gold-mining activities cause a disproportionately large percentage of environmental degradation in Ghana. More specifically, the industry is responsible for the release of an estimated 5 tons of toxic mercury emissions each year, and causes significant damage to landscapes through intense prospecting and excavation activities. To date, most of the efforts made by the Ghanaian government to facilitate improvements in the sector have not been environmental per se, but have rather been directed at regularizing and formalizing operation. dividual operations more effectively.

LEGAL FRAMEWORK EXAMINED BY GAVIN HILSON

According to Gavin, the Ghanaian government has taken several steps to formalize the small-scale gold-mining sector, to the point where it is now acknowledged globally as a 'leader in the promotion of small-scale mining enterprises[34]. The following three laws constitute the legal framework of the sector[35].

1. The Small-Scale Gold Mining Law (PNDCL 218). This law provides for the registration of activity; the granting of gold-mining licenses to individuals or groups; the licensing of buyers to purchase product; and the establishment of district assistance centers.
2. The Mercury Law (PNDCL 217). This law legalized the purchasing of mercury (for mineral processing purposes) from authorized dealers.
3. The Precious Minerals Marketing Corporation Law (PNDC Law 219): transformed the Diamond Marketing Corporation into the Precious Minerals Marketing Corporation (PMMC), which was authorized to buy and sell gold.

[34] UN 1996 recent developments in small-scale mining; a report of the Secretary – General of the United Nations Natural Resources Forum 20 215-25
[35] Tsikata F S 1997 The Vicissitudes of Minerals policy in Ghana Resources Policy 23 9-14

According to the Journal, Small-scale gold-mining licenses are issued by the Minister of Mines (through the Minerals Commission), and entitle the holder to mine and process gold within an assigned plot of land, to purchase mercury from an authorized distributor, and to sell product to a licensed buyer.[36]

RECOMMMENDATIONS AS PER THE GAVINS' PUBLICATION

He suggested that is therefore crucial that the government begins promoting Cleaner Production in the sector through environmental education and improved technology. The first step is for the Ghanaian government to provide assistance in the form of manpower and research resources to the Minerals Commission, which has been burdened with virtually all responsibilities related to small-scale mining.

Recommended that technicians from other governmental institutions such as the EPA and Geological Survey, as well as representatives from academia, be consulted for assistance. Once sufficient manpower is made available, specific environmental management initiatives should be undertaken, small-scale gold-prospecting activities should be commissioned, and nation-wide mercury management projects should be implemented.

With small-scale gold-mining activities intensifying throughout Ghana, it is imperative that the government assumes a leading role in addressing key environmental issues before problems with pollution become completely unmanageable[37]

LIMITAION OF THE APPLICATION OF THE LITERATURE

The limitation of this literature by Gavin is that the geographical gaps arise from the study's exclusive focus on Ghana, which limits its applicability to Uganda's oil and gas sector.

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[36] Iddrisu A Y and Tsikata F S 1998 Mining Sector development and environment project Regulatory framework study to assiit small scale miners, prepared for the Minerals Commission.

[37] Hilson G 2000 Barriers to implementing cleaner technologies and cleaner production (CP) practices in the mining industry: a case study of the Americas Minerals Engineering 13 699-717 - 2002 Small-scale mining and its socioeconomic impact in developing countries Natural Resources Forum (acceptedfor publication)

Secondly, there is different institutional frameworks and governance structures in Uganda that may present unique challenges and opportunities for regulatory enforcement. Gavin's study does not examine how Uganda's oil governance compares to Ghana's, particularly in addressing environmental impact of oil and gas.

THE PUBLICATION OF ONORIODE REGINALD AZIZA, NGOZI SAMUEL UZOUGBO AND MUNACHI CHIKODILI UGWU, "LEGAL FRAMEWORKS AND THE DEVELOPMENT OF HOST COMMUNITIES IN OIL AND GAS REGIONS: BALANCING ECONOMIC BENEFITS AND SOCIAL EQUITY

Onoriode Reginald Aziza et al examined legal frameworks and the development of host communities in oil and gas regions: Balancing economic benefits and social equity.

The study found that effective legal frameworks can mandate the distribution of resource revenues in a manner that prioritizes local development projects, thereby addressing infrastructural deficits and improving living standards. Moreover, environmental regulations within these frameworks are critical in mitigating the adverse effects of resource extraction, thereby preserving the health and livelihoods of host communities.

The study also highlights the importance of participatory governance, where community stakeholders are actively involved in decision-making processes related to resource management[38].

However, the paper does not specifically address Uganda's national legal framework. However, it emphasizes that effective legal frameworks are crucial for environmental protection and community health in oil and gas regions. Such frameworks should include robust environmental regulations to

[38] Onoriode Reginald Aziza, Ngozi Samuel Uzougbo and Munachi Chikodili Ugwu, "Legal frameworks and the development of host communities in oil and gas regions: Balancing economic benefits and social equity", 2023.
https://doi.org/10.30574/wjarr.2023.19.3.1425 Accessed 8/19/2025.

mitigate adverse effects of resource extraction, ensuring the health and livelihoods of host communities are preserved[39].

THE PUBLICATION OF ESTHER KISUBI, & TAJUDEEN SANNI, 'THE REGULATORY REGIME FOR PUBLIC PARTICIPATION IN THE UPSTREAM PETROLEUM SUB-SECTOR IN UGANDA

Esther Kisubi examined the regulatory regime for public participation in the upstream petroleum sub-sector in Uganda while providing an in-depth analysis of the legal and institutional framework in Uganda, identifying strengths and weaknesses[40]. It also examined the practical challenges of implementing effective public participation mechanisms and offers recommendations for enhancing the regulatory regime to maximize citizen involvement.

Using doctrinal legal research, the study scrutinizes legal documents, government reports, and academic literature. Findings reveal significant challenges, including limited access to information, disputes in land acquisition, and barriers to public participation, environmental and social concerns, regulatory gaps, and corruption risks. Failure to address these challenges may lead to economic disparities, social tensions, environmental degradation, and mistrust in the government and industry.

GAPS IN THE PUBLICATION OF ESTHER KISUBI, AND TAJUDEEN SANNI

However, the study does not provide a comprehensive legal and regulatory reforms, improved environmental safeguards in Uganda's oil and gas industry a gap which the current study seeks to close.

[39] Ibidi.
[40] Esther Kisubi, & 2Tajudeen Sanni, 'The regulatory regime for public participation in the upstream petroleum sub-sector in Uganda' 2024. https://doi.org/10.59568/JASIC-2024-5-1-07

PUBLICATION OF ROBERT HOWARTH: "METHANE EMISSIONS AND CLIMATIC WARMING RISK FROM HYDRAULIC FRACTURING AND SHALE GAS DEVELOPMENT: IMPLICATIONS FOR POLICY

Robert Howarth's publication focuses on methane emissions associated with natural gas production, particularly from shale formations[41].

His publication focuses on the role of methane emissions in determining the greenhouse gas footprint of shale gas. Natural gas, including shale gas, is often promoted as a bridge fuel that will allow society to continue to use fossil fuels over the coming decades while reducing carbon emissions. His work is based on the speech delivered by President Obama in his State of the Union speech in January 2014[42].

He published the first peer-reviewed assessment of methane emissions from shale gas development in 2011 where he concluded that 3.8% of the total lifetime production of methane from a conventional gas well is emitted into the atmosphere, considering the full life cycle from well to final consumer[43].

He attributed the higher emissions to venting of gas during the flowback period following high-volume hydraulic fracturing, although a subsequent study identified other sources as well, such as drilling through strata previously developed for coal and conventional natural gas[44]. For both conventional gas and shale gas, we estimated the "downstream" emissions associated with storing gas and delivering it to market to be 2.5%, so his estimates for "upstream" emissions at the well site and from gas processing averaged 1.3% for conventional natural gas and 3.3% for shale gas[45].

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[41] Robert Howarth in his Publication: "Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy **Published** on 8 October 2015 Volume 2015:30 pages 45-54

[42] Geman B. Obama, in Speech, Defends "All of the Above Energy Plan". National Journal; 2014. Available from: http://www.nationaljournal. com/state-of-the-union-2014/obama-in-speech-defends-all-of-the-above-energy plan-20140128. Accessed June 09, 2025

[43] Howarth RW, Santoro R, Ingraffea A. Methane and the greenhouse gas footprint of natural gas from shale formations. Clim Change Lett. 2011;106:679–690.

[44] Caulton DR, Shepson PB, Santoro RL, et al. Toward a better understanding and quantif ication of methane emissions from shale gas development. Proc Nat Acad Sci U S A. 2014;111: 6237–6242

[45] Howarth RW. A bridge to nowhere: methane emissions and the green- house gas footprint of natural gas. Energy Sci Eng. 2014;2:47–60.

His findings suggest that the greenhouse gas footprint of shale gas is significantly larger than that of conventional gas, oil, and coal over a 20-year period. This work has influenced policy discussions on the role of natural gas in climate change mitigation[46].

As of January 2015, the US environmental Protection Agency (EPA) has taken some steps to reduce emissions from shale gas, but how effective these will be in reducing methane emissions remains unclear.

According to the publication, a draft regulation proposed in 2012 would have prevented the venting of methane during the flowback period following hydraulic fracturing, with some exceptions such as for wells in frontier regions not yet serviced by pipelines[47]. This would be important, since such venting can emit a large amount of methane[48]. However, the final regulation distinguishes between two phases of flowback, an "initial flowback stage" and a "separation flowback stage". Venting of methane and other gas is explicitly allowed during the initial stage, and recovery of the gas is only required during the separation stage.

The research gaps in his publication is based from the study's focus on United state of America's state of oil and gas affairs without extending its analysis to other African countries with emerging oil and gas industries as most of the African countries like Uganda do have difference in the institutional frameworks and governance structures that may present unique challenges and opportunities for regulatory enforcement and hence making it difficult to plainly rely on the findings.

1.9.3 Existing Literatures on Legal and policy reforms to improve the protection of environment in Uganda's oil and gas sector

To improve environmental protection in Uganda's oil and gas sector, several tools have been developed to facilitate the monitoring and management of

[46] Howarth RW, Santoro R, Ingraffea A. Methane and the greenhouse gas footprint of natural gas from shale formations. Clim Change Lett. 2011;106:679–690

[47] Environmental Protection Agency. Oil and natural gas sector: reconsideration of additional provisions of new source performance standards; final rule. 40 CFR part 60. Fed Regist. 2014;79(250): 79018–79041.

[48] ibid

environmental and social issues from oil and gas activities. These include a Strategic Environmental Assessment (SEA) of the oil and gas activities in the Albertine Graben which was approved by Cabinet in 2013. At the time, Uganda was among the first countries in Africa to undertake an SEA for its oil and gas projects and it was the first time that such a comprehensive SEA was being undertaken for a project of any kind in Uganda[49].

Uganda has established a comprehensive legal and policy framework to oversee environmental management in the oil and gas industry such as constitution of the Republic of Uganda, Mining and Minerals Act Cap. 159 and National Environment Act Cap. 181, National Environment Act (2019), Oil and Gas Policy (2008, amongst others as explicated below:

The Constitution of the Republic of Uganda (1995). This foundational legal document mandates the state to promote sustainable development and environmental awareness.

National Environment Act (2019). Replacing the 1995 Act, this legislation provides updated guidelines for environmental management, emphasizing the need for Environmental and Social Impact Assessments (ESIAs) prior to initiating oil and gas projects.

Oil and Gas Policy (2008). This policy outlines the government's commitment to ensuring that oil and gas activities are conducted in an environmentally responsible manner, aligning with principles of sustainable development.

In addition to above, several institutions have been established to implement and enforce environmental regulations in Uganda's oil and gas sector as briefly postulated below:

National Environment Management Authority (NEMA). As the primary regulatory body, NEMA is responsible for overseeing environmental compliance, including the review and approval of ESIAs.

[49] Ibidi.

Petroleum Authority of Uganda (PAU). PAU regulates the petroleum sector, ensuring that oil and gas operations adhere to environmental standards and best practices.

Ministry of Energy and Mineral Development (MEMD): MEMD formulates policies and provides guidance on energy and mineral resources, including environmental considerations in the oil and gas industry.

Environmental Impact Assessments (EIAs). The Environmental Impact Assessment Regulations (1998), recently updated to the Environmental and Social Impact Assessment Regulations (2020), mandate that all oil and gas projects undergo thorough assessments to identify potential environmental and social impacts. These assessments are crucial for informed decision-making and for implementing mitigation measures

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

This study will employ the **doctrinal and desktop legal research methodology**, which are commonly used in legal scholarship. The doctrinal legal research methodology was found more suitable for this study because it entails critical and systematic analysis of legal propositions and making rational conclusions[50]. Doctrinal research involves analyzing primary legal sources, such as statutes, regulations, case law, and legal commentary, to evaluate how the law addresses specific issues.

3.1 Desktop research can be defined as a method of inquiry that relies on analyzing pre-existing data from secondary sources such as academic journals, industry reports, government publications, and digital archives. This approach allows researchers to efficiently synthesize vast amounts of publicly available information without conducting primary data collection.

It is particularly valuable for identifying trends, benchmarking industry standards, and forming foundational knowledge in business, social sciences, and policy studies.

However, its effectiveness depends on the reliability and recency of sourced materials, and it may lack contextual depth when divorced from real-world empirical investigation.

3.2 Doctrinal research is a rigorous, theory-driven methodology predominantly employed in legal scholarship to dissect judicial precedents, statutory frameworks, and jurisprudential commentaries. By applying systematic legal reasoning, researchers evaluate the coherence, evolution, and practical implications of laws, often proposing doctrinal refinements or policy reforms.

[50] S.N. Jain, Doctrinal and Non-Doctrinal legal Research, in Legal Research and Methodology, Indian Law Institute, India, 68 (S.K. Verma & M. Afzal Wani eds., 2006)

Unlike broader secondary research methods, doctrinal analysis is narrowly focused on textual and interpretative legal scrutiny, offering precision but sometimes critiqued for its abstract nature. It remains indispensable for legal academia and practice, though increasingly complemented by empirical studies to bridge theory and real-world legal impacts.

In this case, I will deploy both the desktop and doctrinal research methodology and focus on analyzing Uganda's national legal framework governing the oil and gas sector and its implications for environmental health, safety standards, and economic growth.

The doctrinal approach will enable the study to critically assess whether the existing legal framework adequately addresses the concerns of environmental health and to identify areas where reform may be necessary.

Since the current study looked into already existing laws as stated above and other published studies and reports because the data can be easily accessed through the University and Courts libraries and also online journals and libraries.

LIMITATIONS OF DOCTRINAL AND DESKTOP LEGAL RESEARCH METHOLODOGY

Both **desktop research** which is commonly known as secondary research and **doctrinal research** which is also known traditional legal research method are valuable for academic and professional studies. However, they come with distinct limitations that researchers must consider before relying solely on them.

LIMITATIONS OF DESKTOP RESEARCH METHODOGY

Despite it's the adoption of these methods for this research process and as desktop research involves gathering and analyzing existing data from books, journals, reports, and online sources. While efficient, it has several as they possess notable limitations or drawbacks as briefly discussed below.

Lack of Control Over Data Quality

Since the researcher does not collect the data firsthand, there is no way to verify its accuracy or methodology. Some sources may be biased, poorly researched, or influenced by the author's perspective.

Dependence on Pre-Existing Data

Researchers cannot generate new data but must rely on what has already been published. If the topic is niche or emerging, there may be insufficient sources, leading to gaps in the study.

Desktop legal research methodologies are only as good as the sources available. If laws are outdated or cases sparse, the research might reach an uncertain conclusion. The law is unclear because few authorities exist.

Additionally, both of these methodologies are restricted to laws written on the books, which are potentially limited and ignoring how law operates in the reality of the world. Both mythologies in the analysis might declare that a certain remedy exists in theory, but empirical research might show that in practice that remedy is inaccessible or ineffective. In conclusion, the findings sometimes need to be tempered with real-world insights, which the method itself doesn't provide.

Potential for Duplication and Lack of Originality

If multiple studies rely on the same sources, findings may become repetitive without adding new insights. Without primary research, the study may fail to contribute novel perspectives to the field.

Risk of Outdated or Incomplete Information

Many secondary sources become obsolete, especially in fast-changing fields like technology, medicine, or finance. Reports and statistics may be incomplete, omitting key variables needed for a comprehensive analysis.

Accessibility and Cost Barriers

Critical databases for example sites like JSTOR, LexisNexis often require subscriptions, limiting access for independent researchers. Government or industry reports may be restricted due to confidentiality or proprietary concerns.

LIMITATIONS OF DOCTRINAL RESEARCH METHODOGY

Doctrinal research is primarily used in legal studies, focusing on analyzing statutes, case laws, and legal commentaries. Despite its authority, it has notable constraints:

Limited Interdisciplinary Approach

Pure doctrinal research often ignores insights from political science, economics, or sociology that shape legal systems. For example, a study on labour laws might benefit from economic data on employment trends, which doctrinal research typically excludes.

Over-Reliance on Theoretical Legal Texts

The method emphasizes strict legal principles but may ignore how laws function in practice. Judicial interpretations can vary, leading to inconsistencies in legal reasoning.

Subjectivity in Interpretation

Different legal scholars may interpret the same statute differently, leading to conflicting conclusions. The researcher’s own biases can influence case selection and analysis.

Static Nature of Legal Sources

Laws evolve, but doctrinal research may lag behind recent amendments or landmark judgments. Researchers might miss emerging legal trends if relying only on older case laws.

Lack of Empirical Foundation

Since doctrinal research does not involve fieldwork, it cannot assess the real-world impact of laws on society. Issues like judicial bias, enforcement gaps, or socio-economic influences remain unexplored

Difficulty in Predicting Future Legal Trends

Since it is based on past rulings, doctrinal research may struggle to anticipate how courts will decide new, unprecedented cases. Legal reforms or shifts in judicial philosophy may render previous analyses obsolete.

OVERCOMING THE LIMITATIONS FACED IN EMPLOYING THE RESEARCH METHODOLOGIES

Doctrinal and desktop research are foundational in legal studies, but their constraints such as reliance on theoretical frameworks and secondary sources can hinder comprehensive analysis.

To address these limitations, researchers should integrate empirical methods, such as surveys, case studies, or field observations, to test legal principles against real-world applications. For instance, examining how a judicial precedent operates in practice can reveal gaps between legal doctrine and enforcement. By combining doctrinal analysis with empirical validation, scholars can produce more credible and actionable insights.

Another key limitation of doctrinal research is its potential bias, as interpretations of statutes and judgments may reflect the researcher's preconceptions rather than objective truth. To counter this, comparative legal analysis can be employed, examining how different jurisdictions approach the same legal issue. Additionally, interdisciplinary perspectives such as insights from economics, sociology, or political science can provide a broader context, reducing doctrinal rigidity. Critical legal theories, like feminist or postcolonial jurisprudence, can also challenge traditional assumptions, leading to more nuanced conclusions.

Desktop research, while efficient, risks relying on outdated or incomplete sources, particularly when dealing with rapidly evolving legal fields. To enhance accuracy, researchers should prioritize peer-reviewed journals, government publications, and authoritative databases like Westlaw or HeinOnline. Cross-referencing multiple sources ensures reliability, while systematic literature reviews help identify trends and gaps. Legal tech tools, such as AI-driven analytics and natural language processing, can also streamline data collection, making desktop research more dynamic and up-to-date.

A major limitation of desktop research is its detachment from primary evidence, which can weaken legal arguments. Where possible, supplementing secondary data with primary sources such as court records, legislative drafts, or freedom-of-information requests adds depth and originality. Archival research and interviews with legal practitioners can further bridge the gap between theory and practice. This hybrid approach strengthens findings by grounding them in both documented law and real-world legal behaviour.

To enhance the rigor of both doctrinal and desktop research, methodological transparency is crucial. Clearly outlining research parameters, source selection criteria, and analytical frameworks allows for reproducibility and peer scrutiny. Collaborating with legal professionals, policymakers, or academics can also validate interpretations and uncover overlooked perspectives. Open-access publishing of datasets and methodologies further promotes accountability, ensuring that research withstands critical examination.

Ultimately, overcoming the limitations of these methods requires a flexible, multi-faceted approach. By integrating empirical validation, interdisciplinary insights, and technological tools, legal researchers can produce more robust, relevant, and impactful scholarship. The key lies in balancing traditional doctrinal analysis with innovative techniques, ensuring that legal research remains both theoretically sound and practically applicable.

RESOURCES TO BE USED WHILE APPLYING THE RESEARCH METHODS

Doctrinal research relies heavily on primary and secondary legal sources to analyse laws, precedents, and legal principles. Key resources include statutes, case law, and treaties from authoritative databases like Westlaw, LexisNexis, and government publications. Legal commentaries, law journals, and textbooks provide critical interpretations, while tools like Zotero help manage citations. This method demands structured legal reasoning and access to specialized legal databases for thorough analysis.

In contrast, **desktop research** gathers existing data from reports, academic papers, and institutional records. Sources like World Bank datasets, UN publications, and JSTOR offer valuable secondary data. News archives and think tank reports supplement this research, providing real-world context. Analytical tools such as SPSS or NVivo help interpret findings, while search engines and AI assistants streamline literature reviews. This approach is broader, drawing from interdisciplinary materials rather than purely legal texts.

Both methods require **digital and physical library access**, particularly for subscription-based journals and legal databases. Efficient research also depends on citation software (EndNote, Mendeley) and Boolean search techniques to locate relevant materials quickly. A well-defined research plan is essential to organize findings systematically, whether analyzing case law or compiling statistical data.

Ultimately, doctrinal research is law-centric, focusing on legal authority, while desktop research is data-driven, leveraging existing studies and reports. Choosing the right resources depends on the research question—legal scholars may prioritize case law, while policy analysts might rely on government reports. Combining both methods can strengthen research validity, provided the right tools and sources are used effectively.

CONCLUSION

While **desktop research** is efficient but constrained by data availability and reliability, **doctrinal research** offers depth in legal analysis but lacks empirical grounding. Researchers should recognize these limitations and consider **mixed-method approaches** where possible combining doctrinal analysis with empirical studies or supplementing desktop research with primary data collection.

CHAPTER FOUR

4.0 PRESENTATION AND ANALYSIS OF DATA

I stated earlier, I gather a number of laws and cases to study and understand their effectiveness as far as protection of environment is concern during the exploitation and production of oil and gas is concern and the discussed as below:-

THE CONSTITUTION OF THE REPUBLIC OF UGANDA[51]

Effectiveness of the 1995 Constitution of Uganda in Protecting the Environment During Oil and Gas Exploitation and Production

1. Introduction

As the supreme law of the land, the Constitution of the Republic of Uganda as amended[52] plays a foundational role in shaping environmental governance frameworks.

This analysis therefore explores the Constitution's efficacy in protecting the environment amid the growing oil and gas industry, highlighting key provisions, strengths, and areas needing reform.

CONSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL PROTECTION

The Constitution of the republic of Uganda provides for environmental protection through several key instruments, providing both substantive rights and directive principles:

Directive Principles of State Policy

Contained in the National Objectives and Directive Principles of State Policy, these principles urge the State to harness natural resources in a sustainable

[51] 1995 as amended
[52] Article 2 of the Constitution of the Republic of Uganda 1995 as amended

and equitable manner. They also compel the government to protect ecological systems and promote public awareness about environmental conservation.[53]

However, these principles are aspirational rather than legally enforceable, limiting their practical impact in courts of law.

Protection of right to Property as per Uganda Constitution[54]

Article 26 of the Constitution guarantees the protection of the right to property and no body shall be compulsorily deprived of his property save under the law subject to adequate compensation. In the context of environmental protection, it means the citizens are protected from unlawful evictions and deprivation of their rights of enjoyment of free and conducive environment from the oil and gas companies.

To throw more light on this provision, the Uganda Constitution 1995[55] as amended states that subject to Article 26 the minerals and petroleum belongs to the government of Uganda. It is worth noting the this provision featured in the Uganda Constitution amendment 2005 taking priority of the oil rich regions. There have been conflicts in Bunyoro region over the shareholding in the oil[56].

The government can only grant license on the reserves because it cannot sell the oil sites this invokes the public trust doctrine. This in turn acts as a regulatory framework for the oil and gas sector in Uganda in that only those oil companies who are able to abide by the environmental protection regulations are granted licensed to operate in the oil and case sector in Uganda.

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[53] Objectives XII, XXVII

[54] Article 26 of the Constitution

[55] Article 244 (1)

[56] Escaping The Oil Curse and Making Poverty History by Arthur Bainomugisha ACODE Policy Research Series, No. 20, 2006 Bunyoro kingdom is demanding a share of the oil deposits found in Hoima, Kibaale and Masindi districts. The Banyoro insist that Bunyoro should take not less than 51% of the oil revenues. The Kingdom government is also seeking compensation from the government for the Waraga oil site in Hoima district, insisting that the area is a significant spiritual centre for the kingdom

The Constitution of Uganda provides for the Substantive Environmental Right[57]

Article 39 of the Ugandan Constitution provides every person with the right to live in a clean and healthy environment. This is a justiciable provision, allowing individuals and communities to seek redress for environmental degradation, including that arising from oil-related operations. This provision place a duty on the government to ensure the clean environment including the restriction and regulation of the oil and gas industry.

Under this provision, the state must take appropriate measures to maintain the environment while carrying out activities such as oil search, exploration, and exploitation[58].

The constitution of the Republic of Uganda[59] provides for the duty of Parliament

This article obliges Parliament to enact laws for environmental protection and management. It forms the basis for the legislative framework that governs the petroleum sector today, including the National Environment Act and the Petroleum (Exploration, Development and Production) Act.

This Article emphasizes the need to protect the environment and use it for sustainable development. This should be read together with National objective xxvii The duty is also on the Government to ensure public awareness on the protection of the environment, however there is still a lot to be done to ensure this is effective.

[57] Article 39
[58] (Article 39):(i) of the Uganda Constitution 1995 as amended
[59] Article 245

STRENGTHS OF THE CONSTITUTIONAL FRAMEWORK IN THE CONSTITUTION

Legal Recognition of Environmental Rights

By establishing a constitutional right to a clean and healthy environment, the Constitution gives Ugandans legal grounds to challenge oil and gas activities that cause pollution or ecological damage case in point are the cases discussed in chapter two under the literature review.

Foundation for Sectoral Legislation

The Constitution has led to the development of an extensive legal framework that regulates petroleum operations. Environmental assessments, mitigation plans, and licensing processes now draw their legitimacy from constitutional directives.

Promotion of Public Participation

The Constitution acknowledges the right of citizens to participate in governance[60], which is instrumental in ensuring that affected communities have a voice in oil-related projects, particularly during Environmental and Social Impact Assessments (ESIAs).

State Obligation

There is a constitutional obligation upon the state to protect natural resources on behalf of present and future generations. This principle reinforces the idea of sustainability in resource utilization.

The Uganda Constitution 1995 as amended[61] provides for the state Responsibility: The basic constitutional premise is that natural resources, including oil, are owned by the people of Uganda, and that the government in stewarding natural resources should be equitable and sustainable. It also

[60] Article 38 of the Constitution of Uganda
[61] Articles 17 and 244

includes the founders of the rules and institutions that govern environmental governance.

In Conclusion, the Constitution indeed enshrines environment management as a constitutional limb through which laws and institutions, NEMA included, are mandated. NEMA regulates oil activities in terms of the environment.

REGULATORY CHALLENGES WITH THE CONSTITUTION OF THE REPUBLIC OF UGANDA.

Although there exists a relatively strong Constitution of Uganda of 1995 for environmental protection and sustainable natural resource management, the effectiveness in the context of exploration and exploitation of oil and gas is mixed.

In spite of constitutional stipulations however, limitations still arise in enforcement, such as feeble enforcement, poor monitoring and sometimes conflict of interest. For instance, oil projects have been criticized for environmental destruction, polluting the land, and forcing communities to evacuate as shall be explained in this chapter.

Institutional and Legal Gaps in the Constitution of the Republic of Uganda.

Despite the progressive provisions, several structural and legal weaknesses have hampered the Constitution's capacity to guard the environment against oil sector threats.

Non-Enforceable Policy Directives of the Constitution of the Republic of Uganda

The directive principles in the constitution of the republic of Uganda[62], while morally compelling, are not legally binding. This makes it difficult to hold the

[62] 1995 as amended

government accountable for failure to uphold environmental responsibilities during petroleum development.

Absence of Specific Provisions on Oil and Gas in the Constitution of the Republic of Uganda

The Constitution of the republic of Uganda does not make specific mention of petroleum resources or their unique environmental risks. This gap leaves oil and gas regulation heavily reliant on subordinate legislation, which can be subject to political or economic manipulation and hence limiting the implementation.

Weak Enforcement Institutions

Although institutions like the National Environment Management Authority (NEMA) and Petroleum Authority of Uganda (PAU) are constitutionally anchored through enabling laws, the Constitution itself does not expressly guarantee their independence or insulation from political pressure and hence limiting the implementation.

Barriers to Justice

Access to environmental justice remains limited due to procedural barriers, high legal costs, and lack of specialized environmental courts. While Article 50 allows for redress in case of rights violations, practical implementation is often constrained and hence creating the gap in the implementation.

PRACTICAL REALITIES AND EMERGING ISSUES IN THE IMPLEMENTATION OF THE CONSTITUTION OF THE REPUBLIC OF UGANDA

The development of the Tilenga and Kingfisher projects, along with the East African Crude Oil Pipeline (EACOP), has brought constitutional environmental protections into sharp focus. Civil society and affected communities have raised concerns about inadequate environmental assessments, displacement without adequate compensation, and threats to critical ecosystems such as Murchison Falls National Park and Lake Albert.

Although some public interest litigations have emerged as discussed in chapter two of this research, enforcement remains weak, exposing the limitations of constitutional protections in practice. The government's prioritization of economic growth has sometimes overshadowed environmental rights guaranteed by the Constitution.

THE PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) ACT CAP 161

Uganda's move toward petroleum production, particularly in the ecologically rich Albertine Graben, has necessitated legislation that balances economic goals with environmental responsibility. The Petroleum (Exploration, Development and Production) Act, (PEDP Act) serves as a legal instrument to govern upstream petroleum activities and includes environmental provisions.

The Petroleum (Exploration, Development and Production) Act CAP161 of Uganda seeks to order the exploration, development, and production of petroleum resources in a manner that balances economic development with protection of the environment and the welfare of the people. Its role as the guarantor of the environment in the activity of oil exploitation and production can be assessed according to different aspects[63]:

The Act requires that an Environmental and Social Impact Assessment (ESIA) be prepared and submitted prior to the exercise of any petroleum activities. This must be accomplished in order to be able to recognize any potential environmental hazards and to establish any necessary protective measures, and therefore better manage our resources[64].

While the Act provides an essential legal scaffold, persistent implementation gaps, overlapping mandates, and insufficient community engagement continue to limit its effectiveness.

[63] Section 3
[64] Section 3(2)

This analysis explores whether the Act has been successful in creating enforceable, practical mechanisms to protect Uganda's ecosystems and local livelihoods, especially within biodiversity hotspots such as the Albertine Rift Valley.

Legal Framework and Environmental Provisions of The Petroleum (Exploration, Development and Production) Act CAP 161

This is the principal legislation governing the oil sector its preamble states that it is to give effect to Art 244 of the constitution, regulate the petroleum production, the licensing of companies, the revenue, promotion of oil exploration and also set a safe environment for the operations and plan for the decommissioning. The act also repeals the Petroleum (Exploration and Production) Act, Cap 150 and the related matters

The purpose of the Act is stated in **Section.1 (a)** to establish an effective legal framework and institutional structures to ensure that the exploration, development and production of petroleum resources of Uganda is carried out in a sustainable manner that guarantees optimum benefits for all Ugandans, both the present and future generations. It is important to note that the principle of sustainable development is emphasized in the act, this entails environmental protection. **Section .1 (e)** is principally to the insurance of public safety, public health and environment in the activities. The petroleum rights are still vested in the government of Uganda under S.4 as in Art 244.

The act[65] of the act requires compliance with the environmental principles and safeguards stipulated under National Environment Management Act and other applicable laws, NEMA still has the mandate to monitor and supervise the activities so as to protect the environment as provided for under **Section.17** to the board of directors. This requirement covers the upstream and downstream protection of the environment in accordance with the license. The act requires the carrying out of environmental impact assessment before the opening of the new site **Section 47** and in the operation and work **Section**

[65] Sectio.3

88 all work should be environmentally sensitive. In case the pollution occurs the company is required to make good the loss which includes treatment of the waste.[66]

The act also establishes the Petroleum Authority of Uganda[67], whose main function is to monitor and regulate upstream and downstream petroleum and gas processing in Uganda. The authority is also enjoined to enforce compliance with health, safety and environmental standards set out in the act during the execution of petroleum activities.[68]

The act introduces the decommissioning plan and fund[69] that is to cater for the restoration of the environment to the normal state just in case the company shuts down which in the essence protects the environment from open holes and sites.

The act provides for restriction on the use of surface land[70], restrictions of surface rights are imposed on a licensee in relation to the rights of landowners and others. Thus, a licensee is not permitted to exercise any right under a license without the written consent of the relevant authority on any land dedicated or set apart for a public purpose or for a place of burial, or on land over which a right for mineral exploration, mine or right to cultural site has been granted.

To the land owner distance of two hundred meters of any inhabited, occupied or temporarily unoccupied house or building, and for ploughing 50 meters and other restrictions[71]. Special provision is stated for the wildlife and the forestry which require written consent from the Uganda Wildlife Authority and the National Forestry Authority, this is proper putting in mind the Albertine Region.

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[66] Section.88(g)
[67] Section.9
[68] see note 96 s.17
[69] Section 112, 113
[70] Part IX
[71] ibid s.135(1)b

The PEDP Act is part of a broader legislative ecosystem, aligning with Uganda's National Environment Act (2019) and the National Oil and Gas Policy (2008).

THE PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) EMBEDS ENVIRONMENTAL OVERSIGHT THROUGH:

Environmental and Social Impact Assessments (ESIAs): Required prior to the approval of any petroleum activity, with provisions for public input.

Conformity with Environmental Regulations: The Act mandates adherence to broader national environmental statutes and international best practices.

Site Restoration Responsibilities: Operators are legally obligated to rehabilitate affected areas once operations cease.

Regulatory Oversight: The Petroleum Authority of Uganda (PAU) is responsible for monitoring environmental compliance across all licensed operations.

POSITIVE ASPECTS OF THE PETROLEUM EXPLORATION, DEVELOPMENT AND PRODUCTION ACT IN ENVIRONMENTAL GOVERNANCE

Legal Integration with Environmental Frameworks

The Act mandates that oil companies align their operations with environmental laws. This interlinkage strengthens the legal foundation for holding operators accountable to national environmental standards[72].

[72] Section 3 of the Petroleum (exploration, development and production) Act Cap 161

Compulsory Impact Assessments and Public Hearings

Requiring ESIAs as a precondition for licensing ensures that potential ecological impacts are assessed and mitigated in advance. The inclusion of public hearings though often symbolic creates space for civil society involvement[73].

Emphasis on Environmental Remediation

The requirement for site restoration underscores the government's intent to prevent long-term ecological harm. If enforced, this provision could mitigate the lasting footprint of oil development.

Centralized Monitoring through PAU

The establishment of the PAU provides a dedicated body with oversight functions, offering a centralized mechanism for environmental enforcement specific to the petroleum sector[74].

IMPLEMENTATION SHORTCOMINGS AND STRUCTURAL CHALLENGES WITH THE PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) ACT

Regulatory Weaknesses and Capacity Deficits

Despite legal mandates, both PAU and the National Environmental Management Authority (NEMA) face serious capacity constraints. Limited technical expertise, staffing shortages, and budgetary restrictions inhibit effective field monitoring.

Tokenistic Community Engagement

[73] Section 74 of the Petroleum (exploration, development and production) Act Cap 161
[74] Section 9 of the Petroleum (exploration, development and production) Act Cap 161

Although the law requires public consultations during ESIAs, affected communities often lack the legal knowledge, access to documentation, or technical understanding needed to participate meaningfully.

Unclear Liability and Compensation Structures

The Act offers minimal detail on how to handle environmental damages or compensate affected persons. This ambiguity can delay justice and deter communities from seeking legal redress.

Inadequate Penalties for Non-compliance

Fines and sanctions imposed under the Act do not reflect the financial scale of oil ventures. Consequently, breaches of environmental standards may be seen as manageable risks by companies.

Institutional Overlap and Legal Ambiguity

Multiple government entities share environmental oversight, including PAU, NEMA, and the Ministry of Energy. This can lead to jurisdictional confusion, regulatory delays, and conflicting decisions.

BROADER CONTEXTUAL FACTORS AFFECTING EFFECTIVENESS OF THE PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) ACT

Economic Prioritization Over Ecology

Government ambition to derive revenue from oil resources has, at times, overshadowed environmental considerations. Projects have proceeded despite protests from environmentalists, especially in ecologically delicate areas.

Petroleum Activities in Protected Ecosystems

Oil exploration and infrastructure development near protected zones such as Murchison Falls National Park heighten the risk of irreversible environmental damage, raising ethical and legal concerns.

CONCLUSION

The Petroleum (Exploration, Development and Production) Act 2013 has provisions for integrated regulatory framework with a view to environmental protection in the country but the effectiveness of the Act in Uganda depends on enforcement, institutional capacity, stakeholder compliance, and monitoring which has to be seamlessly implemented. Efforts to strengthen environmental protection have taken place although reform is still needed and continued vigilance is essential if the Act is meaningfully to fulfill its great promise of environmental protection during petroleum development.

THE PETROLEUM (EXPLORATION, DEVELOPMENT, AND PRODUCTION) REGULATIONS (PEDP), 2016

The **Petroleum (Exploration, Development and Production) Regulations** play a key role by operationalising the parent Act through more specific and enforceable provisions. This analysis evaluates the effectiveness of this regulation in protecting the environment during the exploration and production phase of petroleum activities.

1. Environmental Impact Assessment (EIA) Requirements

The regulations require that an Environmental Impact Assessment be conducted prior to the commencement of petroleum exploration activities. This is intended to ensure that potential environmental risks are identified early and appropriate mitigation strategies are integrated into project planning[75].

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[75] Regulations 4, 5 ,6 and 7 of the petroleum (exploration, development and production) Regulations

Evaluation:

Although the regulations emphasize the need for **Environmental Impact Assessments (EIAs)** and **Environmental Management Plans (EMPs)**, there are limited measures to ensure rigorous enforcement. The absence of clearly defined penalties and sanctions for non-compliance with environmental guidelines significantly weakens the law's deterrent effect. Weak enforcement mechanisms result in minimal deterrence against companies neglecting their environmental responsibilities.

2. Waste Management and Pollution Prevention

The Regulations emphasize proper management of petroleum waste to prevent pollution. Licensees are expected to develop waste management plans that address the handling, storage, and disposal of hazardous materials, including drilling fluids and produced water[76].

Evaluation:

Though the regulatory standards are relatively strong on paper, their implementation remains a challenge. In oil-rich areas such as the Albertine Graben, there have been reports of poor waste disposal practices and environmental degradation. The limited technical and financial capacity of local authorities to monitor these activities often results in weak compliance.

3. Emergency Preparedness and Environmental Safety

The Regulations mandate that oil companies prepare for environmental emergencies by establishing contingency plans, including measures for oil spill response and incident management. These plans must be approved by relevant authorities and regularly updated[77].

Evaluation:

This requirement reflects a proactive approach to environmental risk. In the event of environmental incidents like oil spills, the regulations do not provide

[76] Regulation 42 of the Petroluem (exploration, development and production) Regulations
[77] Regulation 22 of the Petroluem (exploration, development and production) Regulations

a comprehensive and structured emergency response protocol. This oversight leaves the country ill-prepared for environmental disasters resulting from exploration activities. The absence of clear liability provisions further complicates the issue, as it is unclear who would bear the cost and responsibility of clean-up operations in such situations. The reliance on foreign expertise and equipment may delay response time in the event of an emergency, making the regulatory intention less effective in practice.

4. Site Restoration and Decommissioning

One of the key environmental safeguards provided under the Regulations is the obligation for licensees to rehabilitate exploration sites after activities end. Restoration and decommissioning plans are required to be submitted and approved prior to project closure[78].

Evaluation:
The PEDP regulations do not establish clear guidelines on decommissioning procedures or the restoration of sites once oil activities cease. Decommissioning processes, including proper waste disposal and land rehabilitation, remain vague, leaving uncertainty about how sites will be cleaned up and restored. Furthermore, the regulations fail to define who would be responsible for the long-term management of environmental impacts post-decommissioning.

While this provision is crucial for minimizing long-term environmental harm, there is little evidence of rigorous follow-up by regulators to ensure full compliance. Inadequate public reporting on site restoration further hampers accountability and leaves communities uncertain about the condition of their environment post-exploration.

5. Public Participation and Transparency

Although the Regulations refer to stakeholder involvement, particularly in the EIA process, the actual level of community engagement remains limited. Local

[78] Regulation 25 (s) of the Petroluem (exploration, development and production) Regulations

communities often report insufficient access to information and minimal participation in environmental decision-making[79].

Evaluation:

Meaningful public involvement is a cornerstone of effective environmental governance. The PEDP Regulations highlight the need for community consultations during oil exploration processes, but they lack detailed instructions on how such consultations should be conducted effectively. Often, these consultations remain superficial, not genuinely involving or addressing the concerns of local communities, especially those from environmentally vulnerable areas. This creates a disconnect between policymakers, oil companies, and the affected communities.

The limited role of communities in environmental assessments and monitoring not only weakens the regulations' effectiveness but also risks fuelling public distrust toward oil operations.

Other Legal Gaps In Environmental Protection Under The Petroleum (Exploration, Development, And Production) Regulations 2016 includes:-

Gaps in Independent Environmental Monitoring

Although the regulations outline the need for continuous environmental monitoring by oil companies, there is no explicit requirement for independent oversight by third parties or government agencies. This gap allows for potential self-regulation, which can undermine the accuracy and objectivity of environmental assessments. Without impartial monitoring, there is a risk of underreporting negative environmental impacts, leading to a lack of accountability.

[79] Regulation 6(5) of the Petroluem (exploration, development and production) Regulations

Weak Inter-Agency Collaboration

There is no clear legal framework for collaboration among the various entities responsible for environmental governance, such as the National Environment Management Authority (NEMA), the Uganda Petroleum Authority (UPU), and local governments. The lack of coordinated efforts among these agencies leads to fragmented oversight, with each agency working in silos, which complicates the regulatory process.

Insufficient Protection of Ecologically Sensitive Areas

While the regulations call for environmental assessments, they do not include specific protections for areas of critical ecological importance, such as national parks, wetlands, or wildlife habitats. As oil exploration advances in sensitive regions like the Albertine Graben, the regulations do not mandate heightened protection measures for biodiversity and ecosystems in these zones, increasing the risk of environmental degradation.

Failure to Address Cumulative Environmental Impacts

Currently, the regulations only require assessments for individual projects, without considering the cumulative impacts of multiple projects within the same geographical area. This presents a challenge, especially in regions like the Albertine Graben, where multiple petroleum activities may overlap. A failure to account for cumulative effects could lead to long-term environmental harm that would otherwise be mitigated by more comprehensive assessments.

Ignoring Climate Change Considerations

The PEDP Regulations do not sufficiently incorporate climate change concerns into their environmental protection framework. Uganda's commitments to international climate agreements such as the Paris Agreement are not reflected in the regulations. This oversight leads to missed opportunities for integrating climate resilience and sustainability into the country's oil exploration activities.

Conclusion

The Petroleum (Exploration, Development and Production) Regulations provide a foundational legal framework for safeguarding the environment during oil and gas exploration in Uganda. It introduce key standards on environmental assessments, waste management, emergency preparedness, and site restoration. However, the practical effectiveness of these measures is undermined by enforcement gaps, institutional limitations, and inadequate community participation. To strengthen environmental protection, there is a need for more robust oversight, increased transparency, and active inclusion of local stakeholders in the regulation and monitoring of petroleum activities

NATIONAL ENVIRONMENT ACT CAP 2019

The National Environment Act Cap. 181, enacted in 1995, was at the time the leading legal instrument for managing environmental issues. While not specifically tailored to oil and gas operations, the Act provided general environmental governance applicable across all sectors.

Recognizing these gaps, the government repealed Cap. 181 and replaced it with the **National Environment Act, 2019**. The new Act was more aligned with international environmental best practices and introduced stronger mechanisms such as strategic Environmental Assessments (SEAs), mandatory environmental audits, Stronger compliance sanctions and Integration of climate and biodiversity concerns

This reform acknowledged the inadequacy of the earlier framework in managing complex and high-risk sectors like petroleum.

This analysis assesses the relevance, efficiency, and practical challenges of the Act 2019 in safeguarding the environment during Uganda's initial phases of petroleum exploitation.

ENVIRONMENTAL PROVISIONS IN THE NATIONAL ENVIRONMENT ACT RELEVANT TO PETROLEUM DEVELOPMENT

The Act introduced a number of mechanisms aimed at promoting environmental integrity:

Mandatory Environmental Impact Assessments (EIAs): All proposed projects with potential adverse environmental effects, including petroleum-related operations, were required to undergo prior assessment[80]

Environmental Quality Standards: The law mandated the formulation of guidelines and permissible limits for emissions and discharges into the environment[81].

Monitoring and Compliance Framework: NEMA was designated as the lead agency responsible for enforcing environmental standards and ensuring compliance by developers.

Remedial and Corrective Orders: The law empowered NEMA to issue orders compelling environmental restoration or cessation of harmful activities.[82]

ACHIEVEMENTS UNDER THE NATIONAL ENVIRONMENT ACT

Emphasis on Preventive Environmental Action

Through its requirement for EIAs, the Act emphasized early identification of environmental risks before project approval[83]. This principle was instrumental in vetting petroleum exploration activities, particularly those near ecologically sensitive areas like national parks and wetlands.

Institutional Oversight

The establishment of the National Environment Management Authority (NEMA) allowed for centralized coordination of environmental affairs, thereby providing a formal structure for environmental protection even in emerging sectors like petroleum[84].

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[80] Section 110,111,112 and 113 of the National Environment Act 2019
[81] Section 81(4) of the National Environment Act 2019
[82] Section 129 of the National Environment Act.
[83] Section 114 of the National Environment Act.
[84] Section 8 of the National Environment Act

Deterrent Measures Against Pollution

Provisions on waste management, hazardous substance control, and pollution penalties served as a legal deterrent against environmental degradation by oil companies[85].

LIMITATIONS IN THE IMPLEMENTATION OF THE NATIONAL ENVIRONMENT ACT.

Despite its broad objectives, the Act faced limitations in adequately addressing the environmental impacts specific to oil and gas operations.

Lack of Petroleum Specific Provisions

The Act did not contain dedicated regulations for the petroleum industry. Issues such as oil spills, flaring, seismic surveys, and underground leakage required specialized legal treatment, which Cap. 181 did not sufficiently provide.

Institutional and Resource Gaps

NEMA, while mandated as the regulatory authority, often lacked the technical expertise, manpower, and logistical capacity to inspect and monitor petroleum installations effectively. This gap undermined real-time oversight and enforcement.

Inadequate Public Participation

Although public consultations were embedded in the EIA process, many affected communities were either inadequately informed or unable to meaningfully engage. This compromised the transparency and inclusiveness of environmental decision-making.

[85] Part VII of the National Environment Act

Delayed Legal Modernization

As oil development advanced, Cap. 181 remained largely static, with limited revisions to accommodate emerging environmental risks. This stagnation left regulators with outdated tools to address the modern demands of petroleum extraction.

FIELD EXPERIENCES AND EVIDENCE

Reports from various civil society organisations working in oil exploration areas revealed instances of environmental degradation, particularly in wetlands and forest reserves. These included land clearing without full restoration, leakage risks, and displacement of biodiversity, despite formal compliance with EIA procedures. Such evidence pointed to a gap between law and enforcement.

Conclusion.

In conclusion, National Environment Act Cap. 181 of Uganda is an important legislation that is geared towards the protection and management of the environment in oil exploration, development and production.

NATIONAL ENVIRONMENT (ENVIRONMENTAL AND SOCIAL ASSESSMENT) REGULATIONS, 2020. STATUTORY INSTRUMENTS 2020 No. 143.

The government enacted the **National Environment (Environmental and Social Assessment) Regulations, 2020** to guide project development through a structured framework aimed at minimizing environmental and social harm. These regulations mark a progressive shift from the earlier Environmental Impact Assessment Regulations of 1998, aiming for stronger environmental governance in high-risk sectors such as oil and gas.

OBJECTIVES AND PURPOSE OF THE REGULATIONS

The 2020 Regulations are designed to:

1) Promote sustainable development through stakeholder engagement and environmental accountability.
2) Establish mechanisms for monitoring and auditing environmental performance throughout the project life cycle.
3) Ensure the identification and assessment of potential environmental and social impacts before project approval.
4) Guide developers in adopting mitigation strategies during project design and implementation.

STRENGTHS AND KEY PROVISIONS

Inclusion of Social Dimensions

A notable improvement in the 2020 framework is the explicit inclusion of social assessment components. Oil and gas activities often lead to displacement, loss of land, and disruption of community livelihoods—making it vital that both environmental and social risks are evaluated jointly.

Compulsory Environmental and Social Impact Assessments (ESIAs)

Under the 2020 Regulations, oil and gas developments are considered high-risk and cannot proceed without a full ESIA. This ensures that environmental concerns are identified and addressed before licensing[86].

Emphasis on Public Participation

The regulations obligate developers to engage with affected communities and other stakeholders during the assessment process. This participatory approach enhances transparency and helps integrate local knowledge and concerns into environmental planning[87].

[86] Regulation 12 of the National (Environmental and Social Assessment) Regulations S.I No. 143 of 2020
[87] Regulation 16 of the National (Environmental and Social Assessment) Regulations S.I No. 143 of 2020

Strategic Environmental Assessment (SEA)

The provision for SEAs allows environmental considerations to be embedded at the policy and planning level, which is crucial when dealing with regional oil and gas development strategies.

Defined Institutional Roles

The law clearly outlines the responsibilities of various institutions including the **National Environment Management Authority (NEMA)**, lead agencies, and project proponents, promoting coordination and clarity in environmental oversight[88].

Monitoring and Compliance Mechanisms

Post-approval, the regulations mandate periodic environmental audits and monitoring reports. This continuous evaluation helps enforce compliance and provides early warnings for unforeseen environmental risks[89].

CHALLENGES UNDERMINING IMPLEMENTATION OF THE NATIONAL (ENVIRONMENTAL AND SOCIAL ASSESSMENT) REGULATIONS S.I NO. 143 OF 2020

Despite the strengths of the Regulations, several issues limit their full effectiveness:

Weak Inter-agency Collaboration

There is occasional overlap or conflict between environmental laws and sector-specific legislation, such as the Petroleum Act, creating regulatory gaps and uncertainties in compliance enforcement.

[88] Regulation 1, 8 and 19 of the National (Environmental and Social Assessment) Regulations S.I No. 143 of 2020

[89] Regulation 46 of the National (Environmental and Social Assessment) Regulations S.I No. 143 of 2020

Data Gaps and Monitoring Deficiencies

Environmental monitoring requires reliable and updated data, which is often lacking. This makes it difficult to assess the actual impacts of oil operations or verify developers' compliance with mitigation plans.

Inadequate Institutional Capacity

NEMA and related bodies often face logistical and financial constraints that hinder consistent enforcement, site monitoring, and timely review of environmental reports.

Limited Community Empowerment

Although public participation is a legal requirement, many local communities lack awareness or technical knowledge to effectively influence the ESIA process. In some cases, consultations are rushed or poorly facilitated.

Political and Commercial Interference

Environmental approvals may be compromised by vested interests, with some projects receiving clearance despite glaring environmental concerns, thereby undermining the regulatory intent.

CONCLUSION

The **National Environment (Environmental and Social Assessment) Regulations, 2020** offer a comprehensive framework aimed at regulating the environmental and social impacts of oil and gas activities in Uganda. Their structure is progressive and aligns with international best practices. However, enforcement weaknesses, limited stakeholder involvement, and administrative challenges hinder their full effectiveness.

However, for the Regulations to achieve their intended purpose, enforcement must be strengthened, institutions adequately funded, and local communities empowered to play an active role in safeguarding their environment. Without such support, the strong legal provisions may remain largely ineffective in practice.

PUBLIC FINANCE MANAGEMENT ACT CAP 171

Fiscal principles include intergenerational equity for finite natural resources. The Act requires Government to manage revenues from petroleum and other finite resources "for the benefit of current and future generations," which anchors savings/borrowing and helps avoid boom bust pressures that typically undermine environmental enforcement budgets[90].

Ring-fenced oil revenue architecture[91]establishes:

1. A Petroleum Fund into which all petroleum revenues must be paid[92];
2. strict withdrawal rules limited to the Consolidated Fund to support the annual budget and the Petroleum Revenue Investment Reserve (PRIR) for investment[93]
3. reporting/oversight**:** semi-annual and annual statements by the Accountant General and Minister to Parliament, plus publication duties[94]. These transparency controls can indirectly support environmental compliance by making oil money traceable and available for mandated environmental functions (NEMA, PAU, MEMD).
4. Budget Framework Paper (BFP)[95] & Fiscal Risk Statement. The BFP must align with the Charter for Fiscal Responsibility and include a Fiscal Risks Statement. Environmental liabilities (e.g., spill clean-ups, decommissioning, resettlement) can and should be disclosed here, creating pressure to provision funds ex-ante.

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[90] Section 54 and 55 of the Public Finance Management Act
[91] Part VIII (ss.55–73
[92] Section.56–57
[93] Section 55 -58
[94] Part VIII of the Act
[95] Shedule 3 of the Act

How that translates into environmental protection (indirect pathway)

Stabilized, predictable funding: By smoothing how petroleum revenues enter the budget and by privileging investment over recurrent spending[96], the PFMA helps safeguard medium-term allocations for environmental monitoring and enforcement during exploration and development.

Parliamentary scrutiny and publication: Required tabling and publication of Petroleum Fund reports[97] create leverage for committees and civil society to question whether upstream activities are meeting environmental standards and whether regulators (NEMA/PAU) are funded to enforce them.

Intergenerational framing: The principle supports policy choices (e.g., savings in the PRIR) that curb pro cyclical spending surges that often crowd out environmental safeguards in early production years.

Practical performance to date (indicative)

Government budget monitoring around petroleum projects shows the PFMA framework actively used to channel and track sector spending (e.g., monitoring of petroleum-related outlays and equity for UNOC/EACOP), reinforcing traceability even though these reports are not environmental instruments per se.

Amendments in 2021 allowed UNOC to retain proceeds from the State's share of petroleum useful for project execution but a potential transparency/oversight risk unless matched with PFMA-grade reporting to Parliament and line-of-sight in the BFP/Fiscal Risk Statement.

Limits & gaps in the Act

No environmental standards in the PFMA. Substantive environmental obligations (EIA, permits, mitigation, decommissioning) live in the National

[96] Part VII of the Act
[97] Section 59 of the Act

Environment Act and Petroleum Acts/regs, not the PFMA. PFMA's tools are fiscal allocation, saving, reporting[98].

No green-tagging requirement. The PFMA doesn't require environmental budget tagging or a certificate of environmental compliance akin to the gender & equity certificate. As a result, it's hard to demonstrate that petroleum revenues are actually supporting environmental monitoring/restoration.

Contingent environmental liabilities not singled out. While the BFP must include a Fiscal Risks Statement, the Act does not expressly require quantification of environmental risks (spills, remediation, resettlement) or of decommissioning liabilities arising in upstream operations.

Bottom-line effectiveness rating

Design effectiveness for indirect protection: MODERATE. Strong on transparency, savings, parliamentary control, and fiscal-risk framing all enabling conditions for environmental protection during upstream.

Direct environmental protection: LOW. The PFMA does not create or enforce environmental standards; it only shapes how petroleum money is collected, saved, spent and reported.

REFORMS TO STRENGTHEN ENVIRONMENTAL PROTECTION VIA THE PFMA

Green Budget Tagging & Certificate. Amend the Act to require an environment & climate certificate (like gender & equity) and Treasury Instructions mandating green-tagging of upstream-related votes (PAU, NEMA, MEMD, Local Govts in Albertine).

Mandatory disclosure of environmental fiscal risks. In Schedule 3 (Fiscal Risks Statement), issue regulations/Treasury Instructions requiring quantified spill/cleanup risk scenarios, expected decommissioning

[98] Part VIII of the Act

obligations and provisioning path, liabilities from community resettlement/offsets, and climate transition risks to petroleum revenues[99].

Earmarked sub-vote for restoration & monitoring. Keep withdrawals compliant with the Act but require the Annual Appropriation to include a distinct sub-vote for environmental monitoring, compliance audits, biodiversity offsets and community livelihood restoration tied to upstream areas[100].

Strengthen UNOC transparency after the 2021 amendment. Condition any retained-revenue powers with PFMA-level reporting to Parliament (quarterly and annual), plus inclusion in the BFP and Fiscal Risks Statement.

Link PRIR governance to sustainability criteria. Through the Investment Policy under the Act, add sustainability screens and require that PRIR reports include environmental/climate risk analysis for the portfolio and for macro-fiscal exposure to oil price/transition shocks[101].

CONCLUSION

The PFMA's Part VIII (Petroleum Fund, PRIR, withdrawal/reporting rules) and fiscal principles furnish indirect but real support for environmental protection during the upstream stage by stabilizing budgets, enforcing transparency, and enabling Parliament/civil society oversight.

However, because the Act is a public-finance (not environmental) instrument, its direct protective effect is limited. Its effectiveness would materially improve with targeted amendments and Treasury Instructions to green-tag spending, quantify environmental fiscal risks, and tighten reporting (especially after the 2021 UNOC amendment).

[99] Schedule 3 of the Act
[100] Section 56 of the Act
[101] Section 63 of the Public Finance Management Act

UGANDA WILDLIFE ACT CAP 315

The Uganda Wildlife Act, 315 (UWA Act) establishes a comprehensive framework for the protection and sustainable management of wildlife resources. Its relevance to the upstream stage of petroleum activities covering seismic surveys, drilling, and associated infrastructure derives primarily from its provisions on access regulation, environmental safeguards, and enforcement mechanisms.

Substantively, the Act prohibits any prospecting for minerals, preparing land for cultivation, or other extractive activities within wildlife conservation areas unless expressly permitted under the law. This gatekeeping function is reinforced by the requirement that any development likely to affect wildlife habitats undergo an Environmental Impact Assessment (EIA), with the Uganda Wildlife Authority (UWA) designated as the lead agency in wildlife matters[102]. UWA is further empowered to issue permits, attach conditions, prohibit or regulate commercial activity in protected areas, and require management plans for activities affecting wildlife resources[103].

Enforcement is underpinned by stringent compliance tools, including stop notices and penalties that escalate to life imprisonment and forfeiture for serious breaches[104]

The statutory design is therefore robust, particularly when read in harmony with the National Environment Act, Cap 315, which provides the overarching EIA regime. Literature suggests that, in principle, this dual-framework ensures that upstream petroleum activities in sensitive ecosystems such as Murchison Falls National Park are subjected to strict screening and biodiversity safeguards[105].

[102] Section 23 and 24 of the Wildlife Act Cap 315
[103] Section.21–22, 33 of the Wild Life Act Cap 315
[104] Section.40–45, 70–73 of the Wildlife Act Cap 315
[105] Ochieng, 2021; Tumusiime & Mwavu, 2022.

Indeed, government and Petroleum Authority of Uganda reports on the Tilenga project indicate that no significant disturbance in elephant ranging patterns or stress levels has been detected under current monitoring.

However, the effectiveness of the Act in practice is more contested. Civil society organizations, such as the African Institute for Energy Governance (AFIEGO) and Global Witness, have documented concerns about habitat fragmentation, cumulative impacts, and transparency gaps in the permitting process[106]

It should be noted that while the Act grants UWA broad discretion to prohibit or condition activities, its allowance for exploitation within wildlife management areas where compatible with wildlife presence creates a potential legal opening for petroleum activities that may undermine long-term ecological integrity. Furthermore, institutional weaknesses, limited resourcing for monitoring, and inconsistent public disclosure of EIA conditions limit the law's deterrent effect.

CONCLUSION

In sum, the Uganda Wildlife Act, Cap 315 provides a strong statutory basis for wildlife and habitat protection during the upstream petroleum stage, with clear prohibitions, rigorous EIA obligations, and harsh penalties. Its relative weakness lies less in the text of the law than in the **implementation gap, where enforcement capacity, transparency, and cumulative-impact assessment remain critical challenges.

THE OCCUPATIONAL SAFETY AND HEALTH ACT, CAP 231

The Occupational Safety and Health Act (OSHA), Cap 231 is Uganda's primary legislation designed to safeguard the health and safety of workers across all sectors. While its primary aim is to protect human health within the workplace, OSHA indirectly contributes to environmental protection,

[106] AFIEGO, 2020; Global Witness, 2021.

particularly in industries with high environmental risks such as upstream oil and gas operations.

Relevance to the Upstream Oil and Gas Sector

The upstream oil and gas sector involves exploration, drilling, and production activities that carry substantial risks to both workers and the environment. These risks include oil spills, gas leaks, exposure to toxic chemicals, and other operational hazards. OSHA obliges employers to identify workplace hazards, implement safety measures, and provide training and protective equipment to workers. By promoting a culture of safety, OSHA indirectly mitigates environmental harm, as many environmental incidents like chemical spills occur due to unsafe work practices[107].

Integration with Petroleum-Specific Regulations

Recognizing that OSHA alone may not fully address the environmental challenges of the oil and gas sector, Uganda has developed Petroleum (Exploration, Development and Production) (Health, Safety and Environment) Regulations, 2016. These regulations require operators to conduct environmental impact assessments, implement emergency preparedness plans, and establish procedures to protect surrounding communities and ecosystems. When applied alongside OSHA, these regulations create a more comprehensive framework for environmental protection during upstream activities.

Effectiveness and Limitations

While OSHA establishes important standards for workplace safety, its direct impact on environmental protection in the upstream oil and gas sector faces several limitations:

[107] Section 12 to 17 of the Occupational safety and Health Act

1. **Implementation and Enforcement Challenges**

   Many regulatory authorities face difficulties in monitoring compliance due to limited manpower, insufficient technical expertise, and lack of adequate enforcement tools. This reduces OSHA's ability to ensure that oil and gas operators maintain environmentally safe practices.

2. **Resource Constraints**

   Effective environmental oversight requires substantial financial and technical resources. Constraints on these resources limit the capacity of regulators to inspect oil and gas operations thoroughly, assess risks, and respond promptly to incidents that could harm the environment.

3. **Limited Public Awareness and Participation**

   OSHA and related regulations depend partly on workers' awareness of safety and environmental obligations. Low levels of training and awareness among workers and communities can contribute to underreporting of environmental hazards and weak enforcement of standards.

CONCLUSION

The Occupational Safety and Health Act (Cap 231) plays a supportive role in protecting the environment during upstream oil and gas operations by promoting safe work practices and hazard mitigation. However, its environmental impact is indirect, and full effectiveness requires integration with petroleum-specific environmental regulations.

To enhance the protection of the environment, Uganda must strengthen enforcement mechanisms, increase regulatory resources, and improve awareness and compliance among workers and communities involved in upstream oil and gas activities.

THE LAND ACT, CAP. 236

The Land Act, Cap. 236 primarily governs land ownership, tenure, management, and use in Uganda. Although the Act's central focus is on regulating land rights rather than environmental protection, certain provisions indirectly affect environmental outcomes, particularly during the upstream phase of oil and gas operations.

1. Indirect Environmental Safeguards in the Land Act

1. Regulation of Land Use: The Act sets out permissible land uses depending on the tenure system, which may indirectly restrict activities harmful to the environment. For instance, oil exploration activities that involve large-scale land clearance or drilling on private or community land require adherence to existing land use rights and may be curtailed where incompatible with the designated land purpose[108].

2. Compensation and Land Acquisition: Under the Act, landowners affected by compulsory acquisition are entitled to fair compensation. This mechanism can indirectly encourage environmentally sensitive planning, as oil companies must consider the impact of land displacement and rehabilitation costs when planning upstream activities[109].

3. Dispute Resolution Mechanisms: The establishment of District Land Tribunals allows communities to challenge improper land acquisitions or exploitative practices. These tribunals can serve as forums where environmental concerns tied to land use changes are raised, such as the destruction of wetlands or forests due to oil exploration.

Limitations in Direct Environmental Protection

Despite these indirect safeguards, the Land Act does not provide explicit environmental protection measures. It does not require environmental

[108] Section 43 to 46 of the Land Act
[109] Section 43 of the Land Act

assessments prior to land acquisition or oil exploration, nor does it impose obligations on operators to restore land affected by upstream activities. Consequently, the Act alone is insufficient for safeguarding ecosystems and natural resources in oil-rich regions.

Complementary Environmental Framework

To address the gaps left by the Land Act, Uganda relies on other specialized environmental legislation during upstream oil and gas development:

1) National Environment Act, Cap. 181: Mandates Environmental Impact Assessments (EIAs) for oil exploration projects, ensuring that potential environmental risks are identified, mitigated, and monitored.

2) National Forestry and Tree Planting Act, Cap. 160: Protects forests and promotes reforestation, mitigating deforestation risks associated with pipeline construction and exploration activities.

3) Water Act, Cap. 164: Regulates water resource management, preventing contamination of rivers, lakes, and groundwater from oil-related operations.

4) Wildlife Act, Cap. 315: Safeguards biodiversity, ensuring that exploration and drilling do not threaten protected species or habitats.

Practical Challenges and Observations

In practice, several challenges limit the effectiveness of the Land Act in protecting the environment:

1. Weak Integration with Environmental Regulations: Land administration processes are often not closely coordinated with environmental oversight agencies, leading to gaps in monitoring and enforcement.

2. Community Awareness and Participation: Many landowners in oil exploration areas lack full awareness of their rights under the Land Act and complementary environmental laws, which limits their ability to advocate for sustainable practices.

3. Resource Constraints: District Land Tribunals and land administration offices often face capacity and resource limitations, reducing their ability to effectively enforce environmentally sensitive land use decisions.

CONCLUSION

While the Land Act, Cap. 236 influences environmental outcomes indirectly through land use regulation, compensation, and dispute resolution mechanisms, it cannot by itself ensure environmental protection during the upstream stage of oil and gas operations. Its effectiveness is enhanced only when applied in conjunction with Uganda's environmental laws and regulations. A more integrated approach that explicitly aligns land management with environmental protection, community participation, and sustainable development principles is necessary to safeguard the country's ecosystems during oil exploration and production.

ACCESS TO INFORMATION ACT, CAP 95

The Access to Information Act (Cap 95), enacted in Uganda in 2005, is a critical tool aimed at promoting transparency, accountability, and citizen participation in governance. By granting the public the right to request information from public bodies, the Act seeks to empower citizens to monitor government activities, including those with environmental implications. In the context of the oil and gas sector, particularly during upstream exploration and production, access to information is essential for ensuring that environmental safeguards are implemented and respected.

Legal and Institutional Context

The Act is anchored in Article 41 of the Constitution of Uganda, which recognizes every citizen's right to access information held by public institutions. It covers all government ministries, agencies, local governments, and statutory bodies, unless the information falls under specific exemptions such as national security, commercial confidentiality, or other sensitive matters.

In the upstream oil and gas sector, environmental protection is primarily guided by the National Environment Act, 2019, which mandates that all oil exploration and production activities undergo Environmental Impact Assessments (EIAs) before commencement. The Access to Information Act complements this framework by allowing the public and civil society to obtain copies of EIA reports, environmental audits, and related documents. This access enhances public participation and oversight, enabling communities and NGOs to monitor environmental compliance by oil companies.

Challenges Affecting Effectiveness

Despite its potential, several obstacles limit the Act's impact in protecting the environment:

1. Limited Awareness and Understanding: Many local communities living near oil exploration sites remain unaware of their rights under the Act. This limits their ability to request environmental information or challenge non-compliance by operators.

2. Incomplete or Inconsistent Implementation: Public institutions often fail to proactively disclose environmental information. Requests for information may be delayed or ignored, undermining the ability of citizens to act in a timely manner to prevent environmental harm.

3. Exemptions and Restrictions: The Act contains provisions allowing government agencies to withhold information under grounds such as commercial sensitivity or national security. In practice, these exemptions are sometimes invoked to deny access to critical environmental information, such as detailed production-sharing agreements or sensitive EIA findings.

4. Weak Enforcement Mechanisms: While the Act allows for appeals to the Information Commissioner, enforcement remains weak. Individuals or

communities denied access often face challenges in seeking legal recourse, reducing the deterrent effect against public bodies or companies that withhold information.

Role of Civil Society

Civil society organizations (CSOs) have been pivotal in bridging gaps in the Act's implementation. Organizations such as Greenwatch Uganda and other local advocacy groups have supported communities in understanding their rights, accessing environmental information, and participating in monitoring oil and gas operations. These efforts have helped expose environmental risks and foster accountability, although they remain constrained by institutional and legal limitations.

Assessment of Effectiveness

Overall, the Access to Information Act provides a legal foundation for environmental oversight during upstream oil and gas operations. It empowers citizens and civil society to demand transparency and participate in decision-making processes that affect their environment. However, its effectiveness is hampered by limited public awareness, inconsistent compliance by public authorities, restrictive exemptions, and weak enforcement. Consequently, while the Act is an essential tool for environmental governance, it cannot alone ensure full protection of Uganda's natural resources during oil and gas exploration and production.

CONCLUSION

By implementing these measures, Uganda can maximize the Access to Information Act's potential to protect the environment during the upstream oil and gas stage, ensuring transparency, accountability, and sustainable resource management.

EXAMINATION OF THE RELEVANT CASE LAWS IN RELATIONS TO PROTECTION OF ENVIRONMENT DURING OIL EXPLORATION AND PRODUCTION.

It should be noted that there are also a number of cases which tried to address the environmental issues as discussed below: -

CHRISTOPHER AIKAWO V. NATIONAL CHEMICAL INDUSTRIES & PESTICIDES MANUFACTURERS LTD

The case of *Christopher Aikawo v. National Chemical Industries & Pesticides Manufacturers Ltd*, along with associated litigation such as *Greenwatch and ACODE v. Golf Course Holdings*[110], played a pivotal role in shaping environmental law enforcement in Uganda.

These cases not only expanded legal avenues for environmental advocacy but also reinforced constitutional and statutory safeguards against ecological degradation. Below is an analysis of their key contributions:

1. Expansion of Legal Standing in Environmental Litigation

Prior to these cases, environmental lawsuits in Uganda were often restricted to directly affected parties. However, *Aikawo's case* and the *Greenwatch litigation* helped establish that civil society organizations (CSOs) and concerned citizens could sue on behalf of the public, even without direct personal harm. This shift was crucial in promoting public interest environmental litigation, enabling NGOs like Greenwatch and ACODE to challenge industrial pollution and unsustainable development.

2. Judicial Affirmation of Constitutional Environmental Rights

Uganda's 1995 Constitution[111] guarantees every citizen the right to a clean and healthy environment. The rulings in these cases reinforced this provision by treating environmental harm as a violation of fundamental rights rather than merely a regulatory breach. Courts began interpreting environmental

[110] *(HCMA No. 390 of 2001)*
[111] (Article 39)

degradation as an infringement on constitutional protections, setting a precedent for future cases.

3. Strengthening the Polluter Pays Principle

The litigation against National Chemical Industries and Golf Course Holdings likely involved allegations of industrial pollution and land misuse. By holding these entities accountable, the judiciary reinforced the "**Polluter Pays Principle**" a cornerstone of environmental law requiring offenders to bear remediation costs. This deterred reckless industrial practices and encouraged compliance with National Environment Management Authority (NEMA) regulations.

4. Influence on Subsequent Environmental Jurisprudence

These cases became reference points for later landmark rulings, including: ***Greenwatch v. AG & NEMA (2004)*** – which mandated stricter enforcement of Environmental Impact Assessments (EIAs) for development projects, ***Mbabazi v. AG & Others (2014)*** concerning oil exploration in ecologically sensitive areas like national parks.

The cumulative effect was a more activist judiciary willing to intervene in environmental disputes, even against powerful corporate and government interests.

5. Encouraging Policy Reforms and Institutional Accountability

The litigation exposed gaps in Uganda's environmental governance, prompting reforms such as Strengthening enforcement of the National Environment Act, Greater scrutiny of industrial and agricultural pollution.

There should also be Increased public participation in environmental decision-making Additionally, it pressured NEMA and local authorities to take enforcement more seriously, reducing impunity for environmental violations.

CONCLUSION

In conclusion, while the specifics of *Christopher Aikawo's case* are not extensively documented, its legacy lies in advancing environmental justice through expanded legal standing, constitutional enforcement, and corporate accountability. Alongside *Greenwatch v. Golf Course Holdings*, it laid the groundwork for Uganda's evolving environmental jurisprudence, ensuring that ecological protection remains a justiciable and enforceable right rather than a mere policy aspiration.

This judicial progress continues to influence contemporary cases, demonstrating the enduring impact of early public-interest environmental litigation in Uganda

GREENWATCH (U) LTD. V. ATTORNEY GENERAL & UGANDA ELECTRICITY TRANSMISSION COMPANY LIMITED (UETCL)

The 2001 case of *Greenwatch (U) Ltd. v. Attorney General & Uganda Electricity Transmission Company Limited (UETCL)* marked a pivotal moment in Uganda's environmental jurisprudence. The High Court's ruling reinforced critical principles of environmental governance, setting a precedent that continues to shape how development projects interact with ecological safeguards. This analysis explores the case's lasting influence on environmental protection in Uganda.

1. Reinforcing Mandatory Environmental Impact Assessments (EIAs)

One of the case's most significant outcomes was its firm stance on Environmental Impact Assessments (EIAs). The dispute arose when UETCL began constructing the Nalubaale-Kampala Extra High Voltage Transmission Line without conducting a legally required EIA. The court ruled that this omission violated Uganda's National Environment Act, emphasizing that no major project should proceed without assessing its ecological consequences.

This judgment sent a clear message to both government agencies and private developers: compliance with EIA regulations is non-negotiable. Subsequent projects, such as the Bujagali Dam and oil pipeline developments, have faced stricter scrutiny due to this precedent.

2. Expanding Public Participation in Environmental Decisions

The case underscored the right of citizens and civil society to be consulted on projects affecting their environment. Greenwatch, an environmental NGO, argued successfully that UETCL's failure to engage affected communities breached statutory and constitutional obligations.

By affirming this principle, the judgment strengthened transparency and democratic governance in environmental matters. It empowered communities to demand accountability, ensuring that projects like mining operations, dams, and infrastructure developments now face greater public scrutiny before approval.

3. Strengthening the Role of NGOs in Environmental Litigation

Before this case, there was ambiguity regarding whether NGOs could sue on behalf of environmental interests. The court's recognition of **Greenwatch's legal standing (locus standi)** set a crucial precedent, enabling civil society organizations to act as watchdogs against environmental violations.

This ruling has since inspired other landmark cases, such as **NAPE v. AES Nile Power (Bujagali Dam Case)**, where NGOs successfully challenged inadequate environmental safeguards. Today, Ugandan courts routinely accept public interest environmental litigation, thanks in part to the *Greenwatch* precedent.

4. Upholding the "Polluter Pays" Principle

While the court did not impose direct penalties on UETCL, the judgment implicitly reinforced the "**polluter pays**" **principle** the idea that those causing environmental harm must bear the costs of mitigation. By declaring UETCL's actions unlawful, the ruling discouraged future violations and encouraged developers to internalize environmental costs in their planning.

5. Shaping Future Environmental Jurisprudence

The *Greenwatch* case has been cited in multiple rulings, influencing Uganda's evolving environmental law landscape. Key takeaways include Strict enforcement of EIA regulations, Greater judicial recognition of public interest environmental suits and Stronger legal frameworks for sustainable development

CONCLUSION

The *Greenwatch v. Attorney General & UETCL* case remains a cornerstone of Uganda's environmental legal framework. Its legacy lies in ensuring EIAs are conducted before project approvals, empowering communities and NGOs to challenge environmental violations and promoting accountability in development projects.

This case not only protected Uganda's natural resources but also demonstrated how the judiciary can serve as a vital check against environmental degradation. Its principles continue to guide contemporary environmental litigation, ensuring that economic development does not come at the expense of ecological sustainability.

THE CASE OF RODGERS MUEMA NZIOKA & 2 OTHERS VERSUS TIOMIN KENYA LIMITED[112]

In The Civil Case No. 97 Of 2001 Rodgers Muema Nzioka & 2 Others Versus Tiomin Kenya Limited, the Hon. Judge Mr. A.I. Hayanga Held That when deciding on environmental cases, court has to take into consideration failure of the decision makers to take environmental factors into account.

[112] Civil Case No. 97 Of 2001

Secondly, As for balance of convenience, it is admitted that environmental degradation is not necessarily an individual concern, but a public loss and thus any form of feared degradation and pollution will be caused to the detriment of the population.

However much this case does handle the issues of environmental degradation arising directly from the oil and gas exploration, it gave up the basic principles of the laws in the protection of environment by the decision makers and the authorities.

LIMITATION IN THE APPLICABILITY OF THE CASE

The limitation in this case is that it didn't handle the laws directly related to the oil and gas exploration which leaves the gap and hence the need for this research.

The case of *Trust for African Environmental Needs (TEAN) v Attorney General & National Environment Management Authority (NEMA)* marked a pivotal moment in Kenya's environmental jurisprudence. It reinforced critical legal principles that continue to shape environmental governance, public participation, and judicial oversight in development projects. Below is an analysis of its enduring impact:

1. Strengthening Public Interest Litigation in Environmental Disputes

Before this case, environmental litigation in Kenya was often limited to individuals directly affected by ecological harm. However, *TEAN v AG & NEMA* expanded legal standing by affirming that civil society organizations could sue on behalf of the public to protect shared natural resources. This ruling set a precedent for future cases where communities rely on NGOs to challenge environmental violations, even when harm is diffuse or long-term.

2. Upholding Mandatory Environmental Impact Assessments (EIAs)

A core issue in the case was whether government agencies and private developers could bypass Environmental Impact Assessment (EIA) requirements under the Environmental Management and Coordination

Act (EMCA), 1999. The court's decision reinforced that no project with potential environmental harm could proceed without a proper EIA, ensuring accountability in infrastructure and industrial developments.

This principle has since been cited in later cases, such as *Save Lamu v NEMA (2019)*, where courts halted coal plant construction due to inadequate public participation and flawed EIAs.

3. Clarifying NEMA's Regulatory Authority

The judgment emphasized NEMA's independence as the primary environmental watchdog. It clarified that no government body or private entity could override NEMA's decisions on environmental compliance. This was crucial in preventing political interference in environmental regulation and ensuring that ecological concerns are not side-lined for economic expediency.

4. Influencing Constitutional Environmental Rights

Though decided before Kenya's **2010 Constitution**, the case laid a foundation for interpreting **Article 42** (the right to a clean and healthy environment) and **Article 69** (obligations for sustainable development). Its logic aligns with the constitutional requirement for public participation in environmental decisions, later affirmed in cases like *Mohamed Ibrahim v KETRACO (2018)*.

5. Promoting Judicial Activism in Environmental Protection

The ruling demonstrated that courts could intervene to stop ecologically harmful projects if legal safeguards are ignored. This judicial approach has been instrumental in balancing economic development with environmental sustainability, ensuring that projects like dams, mining operations, and highways undergo proper scrutiny.

CONCLUSION

TEAN v AG & NEMA remains a landmark case in Kenya's environmental law, shaping how courts, government agencies, and civil society engage in ecological governance. By affirming public interest litigation, strict EIA compliance, and NEMA's authority, it set a benchmark for future environmental disputes. Its legacy endures in Kenya's evolving legal framework, where environmental rights are increasingly recognized as fundamental human rights.

THE CASE OF GODFREY NYAKANA -VS.- NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA) AND OTHERS[113]

In the case of Godfrey Nyakana -vs.- National Environment Management Authority (NEMA) and Others (Constitutional Appeal No. 5 of 2011), A landmark decision of the Supreme Court has raised the bar on environmental protection and has environmentalists all in applause. The case pitted environmental protection rights against individual property rights. Developers and lenders have further cause for caution.

RELEVANCY OF THE CASE IN PROTECTING THE ENVIRONMENT

The rights of NEMA to protect the environment were firmly asserted over the Appellant's uncontested property rights. The Court made clear that NEMA had power to restrict the use of a wetland regardless of title to the land. It is likely that NEMA will be emboldened by this decision to issue many more restoration orders to rescue the many degraded wetlands that have been buried under concrete in the name of development.

The civil society organizations that joined this litigation may also get further emboldened. The National Environment Act allows any interested part to apply for a restoration order. All developers are advised to take the environmental law compliance seriously. Developers of commercial properties

[113] (Constitutional Appeal No. 5 of 2011)

should undertake environmental impact assessments and obtain approvals from NEMA. As demonstrated by this case, even developers of residences will benefit from some due diligence on environmental law compliance

The Supreme Court wrote into Uganda's jurisprudence the fundamental environmental law principles of Polluter Pays (that a polluter must pay for damage done to the environment and to the victims of the pollution) and the Precautionary Principle (that lack of scientific certainty should not be used to postpone action to protect the environment).

GAPS IN THE CASE AS FAR AS ENVIRONMENTAL PROTECTION IS CONCERN.

The only challenge with this case above is that it didn’t handle the environmental related matters as far as oil and gas exploration is concern and hence the need for this research.

THE CASE OF CENTRE FOR OIL POLLUTION WATCH (COPW) VS NNPC (2018)

In the case of **Centre for Oil Pollution Watch (COPW) Vs NNPC (2018) Supreme Court of Nigeria**, there was an issues for courts determination as to Whether an oil spill affected the human rights of communities.

In this case, the Supreme Court also made significant strides in ‘greening’ the Nigerian Constitution and confirming the existence and enforceability of environmental human rights in Nigeria, in a manner that increases the possibility of successful climate change litigation in the country, especially by allowing public interest litigation.

First, the Supreme Court held that Section 20 of the Nigerian Constitution on duty to protect the environment by the State is justiciable when read together with, and in the context of, a provision like section 4(2) of the Constitution, on the power to make laws to give effect to section 20. Second, the Supreme Court explicitly recognized for the first time, that section 33 of the

Constitution which guarantees the Right to Life, implicitly includes and constitutes a fundamental right to a clean and healthy environment for all.

Third, the Supreme Court explicitly affirmed the enforceability of the environmental right in Article 24 of the African Charter on Human and Peoples' Rights as domesticated in Nigeria by the African Charter Act, Cap. A9 LFN 2004.

Finally, the Supreme Court decision in the above case aligns with the Constitutional Human Rights approach to Environmental and Climate Protection taken earlier by the Lower Court/Federal High Court in Jonah Gbemre vs Shell and others. It demonstrates a significant positive paradigm shift in the attitude of the Supreme Court to environmental and climate change related claims. It provides additional human rights and constitutional tools for potential climate litigation in Nigeria.

LIMITATION IN APPLICATION OF THIS CASE IN THE ENVIRONMENTAL PROTECTION IN UGANDA

The limitation in relying on this case is that it a foreign case which does not comprehend the national environmental matters affecting Uganda as a nation which is the scope of this studies. Secondly, the case doesn't interpret the national laws of Uganda and hence giving justification for this study.

THE CASE OF CENTRE FOR PUBLIC INTEREST LAW (CEPIL) & OTHERS V. ATTORNEY GENERAL & TOTALENERGIES[114]

The case of *Centre for Public Interest Law (CEPIL) & Others v. Attorney General & TotalEnergies* represents a pivotal moment in Uganda's legal and environmental landscape, particularly concerning the upstream oil and gas sector. While the case itself did not directly address environmental issues, its

[114] Constitutional Petition No. 20 of 2016

implications resonate within the broader context of environmental governance and corporate accountability in Uganda's oil industry.

Case Overview

In September 2020, Justice Musa Ssekaana of the High Court of Uganda ruled in favor of CEPIL and its co-petitioners, declaring the Electricity (Establishment and Management of the Rural Electrification Fund) Instrument, S.I. No. 62 of 2020, invalid. The court found that the instrument was ultra vires, meaning it exceeded the powers granted by the enabling legislation .

While this decision primarily pertained to rural electrification, it set a significant precedent for judicial scrutiny of administrative instruments in Uganda. The court's willingness to invalidate a government instrument based on its legality suggests a growing judicial oversight that could extend to other sectors, including oil and gas.

Implications for Environmental Protection in the Upstream Oil and Gas Sector

1. Strengthening Legal Frameworks

The CEPIL case underscores the importance of ensuring that administrative instruments align with the enabling legislation. This principle can be applied to the oil and gas sector, where regulations governing environmental protection must be consistent with national laws and international standards. Ensuring legal coherence can enhance the effectiveness of environmental safeguards during the upstream stage of oil and gas development.

2. Promoting Corporate Accountability

While the CEPIL case did not directly involve environmental issues, its emphasis on legal accountability can inspire similar scrutiny of corporate practices in the oil and gas sector. Holding companies like TotalEnergies accountable for their environmental impact can lead to more responsible practices and better protection of Uganda's natural resources.

3. Encouraging Public Participation

The involvement of civil society organizations in the CEPIL case highlights the role of public participation in legal processes. Encouraging community engagement and activism can lead to greater transparency and accountability in the oil and gas sector, ensuring that environmental concerns are adequately addressed.

Complementary Legal Actions

While the CEPIL case set a legal precedent, other legal actions have more directly addressed environmental concerns in Uganda's oil sector. For instance, the *AFIEGO et al. v. Total* case challenged the environmental and human rights implications of the Tilenga and East African Crude Oil Pipeline (EACOP) projects. Plaintiffs argued that TotalEnergies failed to adequately assess the project's threats to human rights and the environment, seeking compensation for these alleged violations .

Additionally, reports have highlighted issues such as inadequate compensation for displaced communities and environmental degradation associated with the EACOP project. These cases and reports underscore the need for robust legal frameworks and enforcement mechanisms to protect the environment during the upstream stage of oil and gas development.

Conclusion

The *CEPIL & Others v. Attorney General & TotalEnergies* case, while not directly related to environmental protection, contributes to a broader legal context that can influence environmental governance in Uganda's oil and gas sector. By reinforcing the principles of legal accountability and the importance of aligning administrative instruments with enabling legislation, the case lays the groundwork for more effective environmental protection measures. However, for substantial environmental safeguards, it is essential to complement legal precedents with direct actions and policies that address the specific challenges of the upstream oil and gas sector.

ADVOCATES COALITION FOR DEVELOPMENT AND ENVIRONMENT (ACODE) V. ATTORNEY GENERAL[115]

Background of the Case

The case of *Advocates Coalition for Development and Environment (ACODE) v. Attorney General* was a landmark environmental lawsuit in Uganda. ACODE, a civil society organization, challenged the government's decision to permit Kakira Sugar Works Ltd. to convert the Butamira Forest Reserve into a sugar plantation.

The petitioners argued that this action violated the Ugandan Constitution, specifically Article 39, which guarantees every citizen the right to a clean and healthy environment, and Article 237, which mandates that natural resources be held in trust by the government for the benefit of the public. Central to the case was the allegation that the government had failed to conduct the required Environmental Impact Assessment (EIA) before permitting the forest conversion.

Court Findings and Principles Established

The High Court ruled in favor of ACODE, reinforcing several key environmental principles:

1. **Public Trust Doctrine**

   The court emphasized that the government holds natural resources in trust for the people. Decisions that involve resource allocation or conversion must prioritize public interest and cannot be made arbitrarily or for private gain. This principle extends beyond forests to other natural resources, including petroleum.

2. **Fundamental Environmental Rights**

[115] Miscellaneous Cause No. 0100 of 2004

The ruling recognized that the right to a clean and healthy environment is fundamental. Any action likely to degrade or threaten environmental quality must be subject to careful scrutiny.

3. **Mandatory Environmental Impact Assessments**.

   The court highlighted the necessity of conducting thorough EIAs before any development activity that could significantly affect the environment. This ensures that potential harms are identified, disclosed, and mitigated.

4. **Procedural Compliance**.

   The decision underscored the importance of adhering to statutory procedures in natural resource management. Authorities cannot bypass legal safeguards in pursuit of development projects.

Implications for the Upstream Oil and Gas Sector

While *ACODE v. Attorney General* did not directly involve oil and gas operations, its principles are directly applicable to the sector, particularly during upstream activities such as exploration and production:

Government as Trustee of Petroleum Resources.

The fiduciary duty established in the case obliges the government to manage oil resources transparently and equitably, ensuring that extraction benefits the public and not just private entities or select individuals.

Requirement for Environmental Assessment

Before issuing exploration or production licenses, the government must ensure comprehensive EIAs are carried out, evaluating risks such as oil spills, gas flaring, water pollution, and habitat disruption.

Public Participation and Transparency.

Communities affected by upstream oil activities must have the opportunity to participate in decision-making processes. Transparent disclosure of oil contracts, permits, and environmental reports is critical to uphold the public trust doctrine.

Accountability in Decision-Making.

Authorities must justify their decisions regarding oil exploration and production, demonstrating that environmental considerations and public interest were adequately addressed. This ensures adherence to constitutional and statutory safeguards.

Effectiveness in Practice

The *ACODE* case set a strong legal precedent, reinforcing Uganda's commitment to environmental protection. Its effectiveness in the upstream oil and gas sector depends on how rigorously its principles are applied:

Strengths: It establishes clear legal obligations for environmental due diligence, transparency, and public interest protection. It also empowers civil society and affected communities to hold the government accountable.

Challenges:

Enforcement remains uneven. In the oil sector, pressure for economic development and foreign investment can sometimes lead to compromises on environmental safeguards. Without robust regulatory oversight, the principles from *ACODE* may not be consistently implemented.

Conclusion

ACODE v. Attorney General provides a foundational legal framework for environmental protection in Uganda. By establishing the public trust doctrine, mandating environmental assessments, and recognizing fundamental environmental rights, the case offers powerful tools to ensure that upstream oil and gas activities do not compromise environmental integrity or public welfare. Its effectiveness, however, depends on continuous governmental commitment, strict regulatory enforcement, and active participation of civil society to safeguard Uganda's natural resources for current and future generations.

CHAPTER FIVE

4.0 RECOMMENDATIONS AND CONCLUSIONS

POSSIBLE LEGAL REFORMS TO STRENGTHEN THE EFFECTIVENESS OF CONSTITUTION OF UGANDA 1995 AS AMENDED IN ENVIRONMENTAL PROTECTION DURING EXPLORATION AND PRODUCTION PHASE OF OIL AND GAS.

Strengthen Institutional Independence: The Government of Uganda through the parliament should provide constitutional safeguards to ensure that agencies like NEMA operate free from political or commercial interference.

Improve Access to Environmental Justice: The Government of Uganda through the parliament should Create specialized environmental tribunals or designate fast-track courts for environmental litigation.

Make Directive Principles Enforceable: The Government of Uganda through the parliament should Amend the Constitution to elevate certain key environmental directives into enforceable rights.

Explicitly Include Oil and Gas Governance: The Government of Uganda through the parliament should Introduce provisions recognizing the environmental risks of extractive industries and imposing strict obligations on government and private actors.

Mandate Public Oversight Mechanisms: The Government of Uganda through the parliament should Enshrine public participation and transparency in all petroleum sector decisions through constitutional provisions.

POSSIBLE LEGAL REFORMS TO STRENGTHEN THE EFFECTIVENESS OF PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) ACT, 2013 IN ENVIRONMENTAL PROTECTION DURING OIL AND GAS EXPLORATION AND PRODUCTION.

Policy and Legal Recommendations

Having looked at the challenges in the implementation above and in order o enhance the environmental integrity of Uganda's petroleum sector, I propose the following reforms as below:

Establish a Clear Compensation Framework: The Government of Uganda through the parliament should Introduce detailed protocols for assessing environmental damage and compensating affected stakeholders.

Build Institutional Capacity: The Government of Uganda through the parliament should Invest in staffing, training, and technology for PAU and NEMA to strengthen their ability to enforce environmental standards.

Formalize Community Legal Support: Ensure local populations have access to environmental data, legal aid, and the ability to participate meaningfully in ESIA processes.

Rationalize Oversight Structures: The Government of Uganda through the parliament should Streamline responsibilities between government entities to avoid duplication and regulatory conflicts.

Revise Sanctions to Match Industry Scale: The law should be amended so as to adjust penalties to reflect the financial capabilities of oil companies, creating a stronger deterrent against violations.

POSSIBLE LEGAL REFORMS TO STRENGTHEN THE EFFECTIVENESS NATIONAL ENVIRONMENT ACT IN ENVIRONMENTAL PROTECTION DURING OIL AND GAS EXPLORATION

In order to achieve stronger effects, continuous capacity building, institutional coordination, and strict compliance are necessary. Also, harmonizing the provisions of the Act with sector laws such as the Petroleum Act can promote a more comprehensive handling of environmental issues within Uganda's oil sector.

POSSIBLE LEGAL REFORMS TO STRENGTHEN THE EFFECTIVENESS OF UGANDA'S NEM REGULATIONS IN ENVIRONMENTAL PROTECTION DURING OIL ACTIVITIES

Despite the existence of the **National Environment Management Regulations**, gaps remain in their implementation and enforcement, particularly in the context of the oil and gas sector. To enhance their effectiveness, the following legal reforms are proposed:

1. Harmonization of Sectoral Laws and Regulations

There exists a fragmentation between the NEM Regulations and other sector-specific laws such as the Petroleum Acts and the Uganda Wildlife Act. This often leads to conflicts, overlaps, or regulatory loopholes.

Proposed Reforms.

The Government of Uganda through the parliament should Introduce a comprehensive legal framework that harmonizes the National Environment Management Regulations with oil and gas laws. This should clarify the roles of NEMA, the Petroleum Authority of Uganda (PAU), and other regulatory bodies, ensuring coordinated enforcement.

2. Mandatory Environmental Audits and Public Disclosure

Although the regulations require Environmental Impact Assessments (EIAs), post-approval monitoring and auditing are often weak or inconsistent.

Proposed Reforms

The Government of Uganda through the parliament should Amend the regulations to require periodic environmental audits for all petroleum projects, conducted by independent experts. Further, public access to audit results should be legally guaranteed to promote transparency and community oversight.

3. Strengthening Penalties for Environmental Non-compliance

Current penalties for violating environmental standards are often too lenient to act as a meaningful deterrent for multinational oil companies.

Proposed Reforms

The Government of Uganda through the parliament should revise the NEM Regulations to introduce stricter penalties, including higher fines, suspension of licenses, and mandatory restoration obligations. Penalties should be commensurate with the environmental damage caused.

4. Enhanced Community Participation and Legal Standing

Local communities and civil society often face barriers in participating in decision-making processes or seeking legal redress.

Proposed Reforms

The Government of Uganda through the parliament should incorporate legal provisions that guarantee community consultation, especially indigenous and affected communities, during all stages of petroleum development. Further, amend laws to give wider legal standing to environmental NGOs and individuals to sue in defence of environmental rights.

5. Incorporation of Climate Change and Biodiversity Considerations

The current NEM Regulations do not explicitly integrate climate change risks or biodiversity conservation into the petroleum sector regulatory framework.

Proposed Reforms

The Government of Uganda through the parliament should Update the regulations to align with international environmental principles, such as the precautionary principle, sustainable development, and the protection of ecologically sensitive areas. Climate adaptation and biodiversity protection should be embedded in licensing, EIAs, and project approvals.

6. Establishment of an Independent Environmental Oversight Body

Currently, environmental oversight largely falls under NEMA, which may face institutional and political limitations.

Proposed Reforms

The Government of Uganda through the parliament should Create a semi-autonomous Environmental and Social Accountability Tribunal with the mandate to hear grievances, enforce environmental laws, and conduct oversight on environmental decisions related to petroleum operations.

7. Integration of Technological Tools for Monitoring

Manual monitoring of compliance has proven ineffective due to logistical constraints and corruption.

Proposed Reforms

The Government of Uganda through the parliament should Mandate the use of digital monitoring technologies such as satellite imaging, drone surveillance, and real-time pollution tracking for more accurate and timely detection of environmental breaches in petroleum zones.

Conclusion

Reforming the National Environment Management Regulations to address existing legal gaps is essential for ensuring that oil exploration and production activities in Uganda do not undermine environmental sustainability. The proposed reforms aim to make the legal framework more coherent, participatory, enforceable, and adaptive to current environmental realities and international best practices.

Proposal for Legal and Policy Reforms for Strengthening Environmental Protection under the Land Act, Cap. 236

The Land Act, Cap. 236, while primarily governing land tenure, ownership, and use, currently lacks explicit mechanisms to safeguard the environment in areas affected by upstream oil and gas activities. To address this gap, the following legal and policy reforms are recommended:

1. Incorporate Environmental Safeguards Directly into the Land Act

1) Amend the Act to require environmental due diligence before land acquisition or allocation for oil and gas exploration.

2) Mandate that all land earmarked for upstream operations undergo a mandatory Environmental Impact Assessment (EIA) in collaboration with the National Environment Management Authority (NEMA).

2. Strengthen Land Use Planning and Zoning

1) Introduce clear land-use zoning regulations for oil and gas exploration, specifying areas off-limits due to ecological sensitivity, such as wetlands, forests, and water catchments.

2) Ensure zoning plans are legally binding and publicly accessible, with mechanisms to monitor compliance and penalize violations.

3. Enhance Compensation and Land Restoration Measures

1) Expand compensation frameworks to cover environmental rehabilitation costs, not just monetary value of the land.

2) Require operators to prepare land restoration and rehabilitation plans, enforceable through legal agreements and monitored by relevant authorities.

4. Institutional Coordination

1) Establish a formal coordination mechanism between land management authorities and environmental regulators to review and approve land acquisitions for oil and gas projects.

2) Ensure that both land tenure rights and environmental sustainability are assessed before project approval.

5. Promote Community Participation and Consent

1) Introduce mandatory consultation with affected communities, ensuring that landowners and local stakeholders are informed and have an opportunity to influence land allocation decisions.

2) Require free, prior, and informed consent (FPIC) for land designated for oil exploration, empowering communities to challenge allocations that threaten the environment.

6. Monitoring and Compliance

1) Obligate oil companies to submit regular reports on land use and environmental management, verified by oversight authorities.

2) Empower District Land Tribunals to enforce compliance and impose penalties on operators who violate environmentally sensitive land-use regulations.

7. Policy Integration

1) Develop a National Land and Environmental Policy that explicitly aligns land administration with sustainable natural resource management and upstream oil and gas development.

2) Include strategic environmental considerations in licensing processes to ensure oil exploration activities are consistent with ecological protection goals.

8. Capacity Building

1) Train land officers, tribunal members, and local officials on environmental law, sustainable land use, and EIA procedures.

2) Provide technical support for monitoring, reporting, and enforcement of environmentally sensitive land use in oil exploration zones.

9. Incentives for Sustainable Practices

1) Introduce tax incentives or other benefits for oil operators that adopt environmentally friendly practices, including land restoration and pollution prevention.

2) Encourage alignment with international environmental standards, such as IFC Performance Standards, to complement national laws.

Conclusion

These reforms are designed to bridge the current gap between land administration and environmental protection. By embedding environmental safeguards into the Land Act, strengthening institutional coordination, promoting community participation, and incentivizing sustainable practices, Uganda can ensure that upstream oil and gas activities are conducted responsibly, protecting both natural ecosystems and community livelihoods.

PROPOSAL FOR LEGAL AND POLICY REFORMS TO PUBLIC FINANCE MANAGEMENT ACT STRENGTHEN ENVIRONMENTAL PROTECTION

The upstream oil and gas sector in Uganda presents significant environmental risks, including oil spills, habitat degradation, and community displacement. While the Public Finance Management Act (PFMA) provides a framework for fiscal accountability and transparency, its contribution to environmental protection remains largely indirect. To enhance the Act's effectiveness and ensure that petroleum revenues support sustainable upstream development, a combination of legal and policy reforms is necessary.

1. Legal Reforms

a) Introduce Environmental Budget Certification

The PFMA should be amended to require all petroleum-related expenditures to include an **environmental compliance certificate**, similar to the existing gender and equity certificate. This would obligate responsible ministries and agencies to identify and certify funds dedicated to environmental monitoring, mitigation, and restoration during exploration and production.

b) Mandatory Disclosure of Environmental Fiscal Risks

The Fiscal Risks Statement under Schedule 3 of the PFMA should explicitly require the disclosure of potential environmental liabilities. These include decommissioning obligations, oil spill remediation, biodiversity offset costs, community resettlement obligations, and climate-related transition risks. Quantifying these risks would improve Parliament and public oversight of environmental expenditure in the petroleum sector.

c) Strengthened Reporting for State-Owned Oil Companies

Following the 2021 PFMA amendments allowing UNOC to retain petroleum revenues, legislation should require the company to provide quarterly and annual reports to Parliament detailing how retained revenues are used, with particular attention to environmental compliance and mitigation activities.

d) Sustainability-Linked Investments of Petroleum Funds

The Petroleum Revenue Investment Reserve (PRIR) should adopt explicit sustainability criteria. Investments should be assessed for their environmental and climate impacts, and projects that increase upstream environmental risks should be subject to stricter approval and oversight.

e) Conditional Revenue Withdrawals Based on Environmental Compliance

Withdrawals from the Petroleum Fund for upstream operations should be made conditional upon certification that the activities comply with environmental regulations, including approvals from NEMA and the Petroleum Authority of Uganda.

2. Policy Reforms

a) Green Budgeting and Expenditure Tracking

The Ministry of Finance should implement Treasury Instructions requiring green-tagging of all petroleum-related expenditures. A dedicated sub-vote for environmental monitoring, compliance enforcement, restoration, and community livelihood programs should be created to ensure funds are clearly allocated and protected.

b) Environmental Fiscal Oversight Mechanisms

An independent unit within the Ministry of Finance or Parliament's Public Accounts Committee could be established to monitor environmental spending in the petroleum sector. This unit would ensure that audits of upstream projects evaluate environmental risk management, mitigation efforts, and the adequacy of financial provisions for potential liabilities.

c) Integration of Environmental Risks in Fiscal Reporting

The Fiscal Risk Statement should include scenario-based analyses of environmental hazards such as oil spills, habitat destruction, or decommissioning costs, assessing their potential impact on the national budget and petroleum revenues.

d) Financial Incentives for Sustainable Practices

Policies should require upstream operators to post environmental performance bonds or guarantees to cover potential remediation, restoration, or biodiversity offset costs. These financial instruments would provide a fiscal buffer for environmental emergencies and incentivize compliance with regulatory standards.

e) Enhanced Transparency and Public Engagement

Petroleum revenue and expenditure reports, including allocations for environmental protection, should be published in a timely manner to enable civil society, local communities, and stakeholders in the Albertine region to monitor compliance and hold operators and regulators accountable.

Conclusion

The proposed legal and policy reforms aim to transform the PFMA from a primarily fiscal accountability instrument into a tool that actively supports environmental protection in Uganda's upstream oil and gas sector. By combining statutory amendments with practical policy measures such as green budgeting, independent oversight, and sustainability-linked investment criteria the government can ensure that petroleum revenues contribute to long-term environmental sustainability while maintaining fiscal prudence and transparency.

POSSIBLE LEGAL AND POLICY REFORMS TO STRENGTHEN WILDLIFE ACT CAP 315 IN THE PROTECTION IN UPSTREAM OIL AND GAS ACTIVITIES

Despite the robust framework established under the Uganda Wildlife Act, 315, practical implementation gaps and emerging challenges from upstream oil and gas operations necessitate targeted legal and policy reforms. The following measures aim to enhance statutory safeguards, improve institutional efficiency, and ensure sustainable biodiversity management.

A. Legal Reforms

1) **Designation of Strict Conservation Zones**

Introduce statutory "no-go zones" encompassing national parks, critical wildlife habitats, and key migratory corridors. This ensures that upstream oil and gas activities are explicitly prohibited in areas of highest ecological sensitivity.

1. **Mandatory Strategic and Cumulative Environmental Assessments**

Require Strategic Environmental Assessments (SEA) and cumulative impact assessments for oil and gas development corridors, capturing landscape-level and long-term ecological effects beyond individual project EIAs.

2. **Enhanced Transparency in Permit Issuance**

Make all permits, associated conditions, monitoring reports, and compliance audits publicly accessible. This would strengthen accountability and enable independent scrutiny by civil society, academia, and local communities.

3. **Strengthening Enforcement Mechanisms**

Introduce graded fines, unconditional restoration and decommissioning obligations, and administrative measures tailored to the severity of environmental damage. Enforcement tools should empower UWA to impose corrective actions promptly and effectively.

4. **Statutory Protection for Wildlife Corridors**

Legally recognize critical wildlife corridors and require developers to avoid fragmentation of habitats. Compulsory rehabilitation measures should be included where infrastructure impacts connectivity.

5. **Legal Standing for Communities and Civil Society**

Provide affected communities and recognised environmental organisations the right to challenge permits or operations that threaten wildlife. This enhances participatory governance and oversight.

Policy and Institutional Reforms

1. **Establishment of a Joint UWA–NEMA Coordination Unit**

A dedicated technical unit to oversee permit review, enforce wildlife-specific conditions, and monitor ongoing upstream operations in real-time.

2. **Standardisation of Sector-Specific Permit Conditions**

Introduce uniform requirements covering noise, light, traffic, waste management, and invasive species control to ensure consistent environmental safeguards across projects.

3. **Multi-Stakeholder Oversight and Advisory Panels**

Include representatives from civil society, local communities, and technical experts to evaluate compliance, review cumulative impacts, and provide policy guidance.

4. **Dedicated Wildlife Restoration and Monitoring Fund**

Create a ring-fenced fund financed by fines, permit fees, and biodiversity financing instruments. This fund would support habitat restoration, monitoring programmes, and community mitigation initiatives.

5. **Integration with Land-Use and Community Development Planning**

Oil and gas infrastructure planning should be aligned with district land-use plans, ensuring benefit-sharing mechanisms, human-wildlife conflict mitigation, and sustainable alternative livelihoods for affected populations.

6. **Deployment of Advanced Monitoring Technologies**

Invest in remote sensing, camera traps, acoustic monitoring, and other real-time technologies to improve enforcement and compliance tracking.

7. **Transboundary Collaboration**

Establish bilateral or regional agreements to protect migratory species and shared ecosystems, ensuring upstream activities do not compromise biodiversity across borders.

C. Implementation and Monitoring

1. **Short-Term Measures (0–18 Months)**

Launch the public permit registry, establish standard permit conditions, operationalise decommissioning bonds, and formalise UWA–NEMA coordination protocols.

2. **Medium-Term Measures (18–36 Months)**

Conduct SEAs for major oil and gas corridors, establish independent oversight panels, and operationalise the Wildlife Restoration and Monitoring Fund.

3. **Long-Term Measures (36+ Months)**

Incorporate statutory amendments to codify no-go zones, wildlife corridors, and cumulative assessment requirements; scale up technological monitoring; and institutionalise community co-management frameworks.

Key Indicators of Effectiveness:

1) Percentage of permits and monitoring reports publicly accessible within statutory timelines.

2) Number and value of restoration and decommissioning bonds secured relative to approved projects.

3) Change in connectivity indices for critical wildlife corridors using remote-sensing data.

4) Number of stop orders issued and compliance rate achieved.

5) Incidence of poaching or illegal encroachment in oil and gas development areas over time.

Conclusion

These reforms combine preventive, enforcement, transparency, and participatory measures to strengthen the Uganda Wildlife Act, 2019. By proactively addressing legal gaps, institutional weaknesses, and socio-ecological pressures, they create a framework capable of ensuring that upstream oil and gas activities are compatible with sustainable wildlife conservation and long-term environmental protection.

POLICY AND LEGAL REFORM RECOMMENDATIONS FOR ENHANCING THE EFFECTIVENESS OF OSHA, CAP 231, IN PROTECTING THE ENVIRONMENT DURING UPSTREAM OIL AND GAS ACTIVITIES IN UGANDA:

While the Occupational Safety and Health Act (Cap 231) primarily focuses on worker safety, its provisions can be leveraged to promote environmental protection in Uganda's upstream oil and gas sector. To enhance its effectiveness, the following policy and legal reforms are recommended:

1. Explicit Integration of Environmental Protection with Occupational Safety

Current OSHA provisions address worker safety but do not explicitly require environmental safeguards. It is recommended that both policy and legal frameworks explicitly link occupational health with environmental protection. This can be achieved by amending OSHA to include mandatory environmental risk management measures in workplaces handling hazardous materials, especially in oil and gas exploration and production.

2. Strengthening Enforcement and Compliance Mechanisms

Effective environmental protection requires robust enforcement. Policy reforms should focus on creating specialized inspection units within the Ministry of Labour and the Ministry of Energy, tasked specifically with monitoring upstream oil and gas operations. Legally, OSHA could be amended to include more stringent penalties for non-compliance, including environmental harm, and to establish clear timelines for corrective actions.

3. Mandatory Environmental Risk Training for Workers

Workers in the oil and gas sector often handle hazardous substances that pose both health and environmental risks. Policies should require regular, sector-specific training programs on environmental safety, spill prevention, and emergency response. Legally, OSHA or the Petroleum HSE Regulations could be amended to make proof of such training a prerequisite for licensing operators.

4. Community Engagement and Reporting Mechanisms

Local communities are often the first to notice environmental hazards from upstream activities. Policies should promote community participation through structured grievance mechanisms and public reporting systems. Legally, OSHA could mandate that operators establish formal channels for community reporting and require timely responses to environmental complaints.

5. Enhancing Institutional Capacity and Resources

Regulatory authorities often face constraints that limit oversight. Policy measures should ensure adequate funding, technical capacity, and staffing for OSHA inspectors and NEMA officers to conduct joint safety and environmental audits. Legal reforms could require oil and gas companies to finance independent audits to verify compliance with occupational and environmental safety standards.

6. Integration of Environmental Impact Assessments (EIAs) into OSHA Compliance

While EIAs are already required under environmental law, OSHA compliance checks rarely incorporate EIA findings. Policy reforms should align workplace safety assessments with environmental impact evaluations to ensure a comprehensive risk management approach. Legally, OSHA could be amended to require proof of continuous EIA compliance before the commencement of upstream operations.

7. Transparency and Reporting of Safety and Environmental Data

Transparent reporting increases accountability. Policies should establish centralized digital platforms for real-time reporting of safety incidents and environmental breaches in the upstream oil and gas sector. Legally, operators could be required to submit regular public reports detailing compliance with OSHA and environmental standards.

8. Promotion of Technological Solutions for Safety and Environmental Protection

The adoption of advanced technologies can significantly reduce both occupational and environmental risks. Policies should encourage the use of leak detection systems, automated monitoring of hazardous substances, and digital reporting tools. OSHA could be amended to legally require high-risk operators to implement such technologies to prevent environmental harm.

Conclusion.

The proposed reforms aim to transform OSHA into a more holistic framework that simultaneously safeguards workers, protects the environment, and enhances accountability among upstream oil and gas operators. By explicitly linking occupational safety with environmental stewardship, Uganda can ensure that the exploration and production of petroleum resources are both safe and sustainable.

RECOMMENDATION OF LEGAL AND POLICY REFORMS FOR ENVIRONMENTAL PROTECTION UNDER THE LAND ACT, CAP. 236

The Land Act, Cap. 236, primarily governs land ownership, tenure, and management but lacks explicit provisions for environmental protection in areas affected by upstream oil and gas activities. To ensure sustainable land use and environmental conservation, the following legal and policy reforms are proposed:

1. Legal Reforms

a) Incorporate Environmental Safeguards into the Land Act

1) Amend the Land Act to explicitly require environmental assessments before land is allocated or acquired for oil and gas operations.

2) Introduce provisions mandating land restoration and rehabilitation by operators after exploration or extraction activities.

b) Strengthen Land Use and Zoning Regulations

1) Establish clear zoning rules that prohibit oil and gas activities in ecologically sensitive areas such as wetlands, forests, and protected water catchments.

2) Make zoning and land-use plans legally binding, with enforcement mechanisms and penalties for violations.

c) Enhance Compensation Mechanisms

1) Expand compensation frameworks to include environmental restoration costs, in addition to monetary payments for land acquisition.

2) Require compensation agreements to be linked to environmental management and rehabilitation obligations by oil companies.

d) Institutional Coordination

1) Legally mandate joint review and approval of land allocations for upstream activities by land authorities and environmental regulators, including NEMA.

2) Strengthen the authority of District Land Tribunals to address disputes involving environmental degradation and land use.

e) Strengthen Community Rights and Consent

1) Introduce a Free, Prior, and Informed Consent (FPIC) requirement for communities affected by upstream oil and gas activities.

2) Enable communities to challenge land allocations that threaten environmental integrity or livelihoods.

2. Policy Reforms

a) Develop an Integrated Land and Environmental Policy

1) Formulate a National Land and Environmental Policy that harmonizes land administration, upstream oil sector development, and environmental protection objectives.

2) Incorporate sustainable land use, natural resource management, and ecosystem conservation as guiding principles for policy implementation.

b) Promote Strategic Environmental Planning

1) Require that oil exploration licenses and permits include environmental management plans and risk mitigation strategies.

2) Ensure land-use planning for oil activities prioritizes long-term ecological sustainability.

c) Capacity Building and Institutional Strengthening

1) Train land officers, tribunal members, and local government officials on environmental law, EIAs, and sustainable land management.

2) Enhance the monitoring and enforcement capacity of regulatory authorities to ensure compliance with environmental and land laws.

d) Incentivize Sustainable Practices

1) Introduce tax incentives, grants, or recognition programs for oil companies that demonstrate best practices in land stewardship and environmental restoration.

2) Promote adoption of international environmental standards, such as the IFC Performance Standards, in addition to domestic regulations.

e) Monitoring, Reporting, and Accountability

1) Establish mandatory reporting obligations for oil operators on land use, environmental impacts, and mitigation measures.

2) Introduce mechanisms for public participation and oversight, allowing communities and civil society to monitor compliance and enforcement.

Conclusion

These reforms aim to create a cohesive and integrated legal and policy framework that bridges land management with environmental protection. By embedding environmental safeguards into the Land Act, strengthening institutional coordination, empowering communities, and incentivizing sustainable practices, Uganda can ensure that upstream oil and gas operations are conducted responsibly while safeguarding ecosystems and livelihoods.

POSSIBLE REFORMS IN THE ACCESS TO INFORMATION ACT CAP 95

To strengthen the Act's role in environmental protection, the following measures are recommended:

1) Enhanced Public Awareness: Conduct widespread community education campaigns to inform citizens about their rights under the Act and how to request environmental information.

2) Proactive Disclosure: Require public bodies and oil companies to regularly publish environmental reports, EIAs, and compliance audits.

3) Strengthened Enforcement: Empower the Information Commissioner with more authority to enforce compliance and impose penalties for non-disclosure.

4) Limited Use of Exemptions: Restrict the use of exemptions in cases where public access to environmental information is essential for safeguarding natural resources.

GENERAL CONCLUSION

Constitution of the Republic of Uganda

The 1995 Constitution of Uganda provides a commendable framework for environmental protection, grounded in both rights-based and policy approaches. However, its application during oil and gas exploitation is undermined by weak enforcement mechanisms, lack of specificity, and the non-binding nature of policy directives. To ensure that oil development does not come at the cost of ecological degradation and community welfare, there is a pressing need to strengthen constitutional guarantees and align them with evolving environmental realities.

PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) ACT CAP 161

The PEDP Act, Cap 161 represents an essential step toward responsible resource management in Uganda's nascent oil sector. Its environmental provisions, though comprehensive on paper, face serious obstacles in enforcement and practical application. Without significant reforms both institutional and legal the Act risks becoming a symbolic document rather than a tool of real environmental protection. As Uganda stands on the brink of full-scale oil production, aligning economic development with ecological stewardship remains a central challenge.

THE PETROLEUM (EXPLORATION, DEVELOPMENT AND PRODUCTION) REGULATIONS, 2016

The Petroleum (Exploration, Development and Production) Regulations, 2016 were established to promote environmentally responsible oil and gas operations in Uganda. These regulations compel oil companies to undertake

Environmental and Social Impact Assessments (ESIAs), develop Environmental Management Plans (EMPs), implement proper waste disposal methods, and ensure site restoration once operations conclude. They also empower regulatory agencies like the Petroleum Authority of Uganda (PAU) and the National Environment Management Authority (NEMA) to supervise and enforce compliance. Collectively, these provisions aim to reduce the environmental risks associated with petroleum activities.

Despite having a comprehensive legal framework, the practical enforcement of these regulations faces several setbacks. Limited funding, inadequate technical resources, and weak institutional capacity hinder effective monitoring and enforcement. Additionally, the absence of strong penalties and limited community engagement reduce the overall impact of the regulations. While international oil companies may follow environmental standards, local contractors often struggle to comply. To enhance environmental protection, there is a pressing need to strengthen enforcement mechanisms, raise awareness, and incorporate climate change considerations into the regulatory structure.

NATIONAL ENVIRONMENT MANAGEMENT ACT CAP

The National Environment Management Act Cap. 181 laid the initial foundation for environmental governance in Uganda. While it offered a framework for regulating development activities generally, it fell short of providing adequate environmental protection in the oil and gas sector. The absence of industry-specific guidelines, limited enforcement capability, and outdated legal tools weakened its effectiveness in mitigating petroleum-related environmental risks. Nonetheless, it played a vital role in shaping environmental governance and provided a basis for subsequent legal improvements aimed at better balancing development with ecological sustainability.

The **National Environment Act Cap. 181 of 1999,** an important legislation that provides the principles and institutions for environmental protection in Uganda, in particular, during oil exploration and production. Its coverage, institutional arrangement and attention to EIAs and public participation are its merits.

But its success depends on strong enforcement, financing, technical capacity and political support. In practice, issues like enforcement gaps, accidents and resource limitations have at times impaired its capacity to keep the environment safe from oil activity.

THE NATIONAL ENVIRONMENT (ENVIRONMENTAL AND SOCIAL ASSESSMENT) REGULATIONS, 2020

The National Environment (Environmental and Social Assessment) Regulations, 2020 play a significant role in promoting environmental sustainability during oil and gas exploration and production in Uganda. These regulations require developers to undertake Environmental and Social Impact Assessments (ESIAs) before initiating high-risk projects, allowing for early identification and management of environmental and social risks. Notably, the regulations encourage stakeholder involvement, introduce Strategic Environmental Assessments (SEAs), and require continuous monitoring and reporting. They also incorporate social considerations such as community welfare, displacement, and health, which are vital in areas affected by oil operations.

Despite their comprehensive framework, the practical application of these regulations faces several setbacks. Limited institutional capacity, insufficient funding, and external pressures often hinder effective monitoring and enforcement. Additionally, affected communities frequently lack the knowledge and support to engage meaningfully in the ESIA process. Although projects like Tilenga and Kingfisher have followed the prescribed procedures, concerns remain over the adequacy of mitigation efforts and post-approval supervision. To enhance the impact of the 2020 Regulations, it is essential to build institutional capacity, strengthen enforcement, and empower local communities to participate actively in environmental governance.

THE PUBLIC FINANCE MANAGEMENT ACT, CAP. 171

The Public Finance Management Act, Cap. 171, plays a supportive but largely indirect role in safeguarding the environment during Uganda's upstream petroleum operations. Its main contribution lies in establishing fiscal discipline, ensuring transparency in the use of petroleum revenues, and embedding principles of intergenerational equity in the management of non-renewable resources. These measures create a financial environment where environmental regulators and oversight bodies can, in principle, be adequately resourced to address the ecological risks of oil and gas exploration and production.

Nonetheless, the Act does not impose direct environmental safeguards, nor does it require specific allocations for environmental monitoring, restoration, or mitigation of petroleum-related risks. This limits its effectiveness in directly curbing environmental degradation. Its current role is therefore best understood as providing a financial and governance framework within which environmental obligations created under other laws can be more effectively enforced.

Going forward, the PFMA could become a stronger instrument of sustainable resource governance if its provisions were aligned more explicitly with environmental priorities. Reforms such as environmental budget certification, mandatory disclosure of ecological fiscal risks, and sustainability criteria for petroleum revenue investments would enable the Act to contribute more directly to the protection of ecosystems and communities in oil-producing regions.

In conclusion, the PFMA offers a foundation for financial accountability in the oil and gas sector, but its potential to act as a tool for environmental protection will only be realized if fiscal governance is deliberately integrated with environmental law and policy.

THE UGANDA WILDLIFE ACT, CAP 315

The Uganda Wildlife Act, Cap 315 represents one of the most comprehensive legal instruments for balancing conservation with industrial development in Uganda's petroleum sector. By criminalising extractive activities in protected areas without authorisation, embedding wildlife concerns into environmental assessment procedures, and imposing severe penalties for violations, the Act provides a clear framework for safeguarding biodiversity during the upstream oil and gas stage. Yet, its protective promise is often diluted by institutional capacity constraints, gaps in transparency, and the absence of strong cumulative-impact planning.

The path forward requires more than statutory prohibitions. It demands coherent reforms that clarify ecological no-go zones, embed strategic environmental assessments at basin level, guarantee public access to permit information, and provide secure financing for restoration and monitoring. Equally, the law must empower communities and civil society to participate in oversight, ensuring that conservation is not treated as an afterthought to petroleum-led development.

In conclusion, the Uganda Wildlife Act, Cap 315 is a solid foundation, but its success will depend on how effectively Uganda transforms written provisions into lived practice. Strengthening enforcement, enhancing institutional cooperation, and investing in transparent, participatory governance will determine whether the country can achieve both petroleum growth and lasting ecological resilience.

THE OCCUPATIONAL SAFETY AND HEALTH ACT, CAP 231

The Occupational Safety and Health Act, Cap 231, plays an important though indirect role in safeguarding the environment during upstream petroleum operations in Uganda. While the Act is primarily aimed at ensuring the health and safety of workers, many of its provisions—such as those on hazard identification, safe handling of hazardous substances, accident prevention, and emergency preparedness—contribute to reducing risks that could otherwise escalate into serious environmental incidents.

Nevertheless, the Act's effectiveness in directly addressing environmental concerns is limited because it was not originally designed as an environmental statute. Weak enforcement, limited institutional capacity, and the absence of explicit environmental obligations reduce its impact in managing the unique risks posed by oil and gas exploration and production. Its contribution is therefore more supportive than central, complementing other laws and regulations such as the Petroleum (Exploration, Development and Production) (Health, Safety and Environment) Regulations, 2016, and the National Environment Act.

To make OSHA more relevant in the context of petroleum operations, Uganda must move towards reforms that formally integrate occupational safety and environmental protection, strengthen enforcement capacity, increase transparency, and require operators to adopt modern safety and environmental technologies. With these reforms, OSHA can evolve into a more holistic framework that not only secures the health and safety of workers but also contributes meaningfully to the sustainable management of the environment during upstream oil and gas activities.

THE LAND ACT, CAP. CAP 236

The Land Act, Cap. CAP 236, provides the foundation for land ownership and management in Uganda, but its role in safeguarding the environment during upstream oil and gas activities is only incidental rather than deliberate. While provisions on land use, compensation, and dispute resolution may influence environmental outcomes, the Act lacks clear obligations for ecological protection. This gap has made environmental sustainability in the oil sector largely dependent on other legislation, particularly the National Environment Act and related natural resource laws.

To achieve a balanced approach that promotes economic development while preserving ecosystems, Uganda needs to harmonize land governance with environmental regulation. Strengthening the Land Act through targeted reforms, fostering institutional collaboration, and enhancing community participation will be critical in closing existing gaps. Ultimately, the effective protection of the environment in oil exploration areas will depend not only on strong laws but also on consistent enforcement, transparency, and the inclusion of local communities in decision-making. This integrated approach is essential to ensure that the benefits of oil exploitation do not come at the expense of Uganda's ecological integrity and the livelihoods of its people.

THE ACCESS TO INFORMATION ACT, CAP 95

The Access to Information Act, Cap 95 provides a vital legal avenue for promoting openness and accountability in Uganda's governance of the oil and gas sector. By guaranteeing the public's right to seek and obtain environmental information, it has the potential to empower communities, civil society organizations, and other stakeholders to participate meaningfully in monitoring oil exploration and production activities. This, in turn, can contribute to safeguarding ecosystems and ensuring that oil development is undertaken responsibly.

Nevertheless, its practical impact on environmental protection during the upstream stage has been modest. Limited awareness among citizens, weak institutional enforcement, and the frequent use of exemptions to withhold sensitive oil-related information have undermined the Act's effectiveness. Unless these challenges are addressed through stronger enforcement mechanisms, proactive disclosure of environmental reports, and broader public sensitization, the Act will remain more of a theoretical guarantee than a practical tool for environmental governance.

In essence, while the Act establishes a strong legal foundation for transparency, its true effectiveness will depend on consistent implementation and a deliberate effort by government and stakeholders to make environmental information accessible, timely, and usable for decision-making and community oversight.

GENERAL CONCLUSION

Uganda's legal framework for managing environmental impacts in the upstream oil and gas sector is extensive, covering constitutional provisions, petroleum-specific laws and regulations, the National Environment Act, the Wildlife Act, and complementary statutes on land, safety, finance, and information access. Despite this breadth, practical enforcement often falls short due to limited resources, weak institutional capacity, and low public engagement. To ensure that oil and gas development proceeds sustainably, it is essential to strengthen compliance mechanisms, integrate environmental safeguards across all relevant laws, enhance monitoring and oversight, and actively involve communities in decision-making. Only by converting these legal instruments into effective, participatory governance can Uganda reconcile petroleum development with the protection of ecosystems, biodiversity, and local livelihoods.

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