

THE IMPACT OF OIL AND GAS ACTIVITIES ON THE ENVIRONMENT AND CLIMATE: A CASE FOR UGANDA

ANNA TEREZA HOPE NYAPENDI

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**UGANDA CHRISTIAN
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DECLARATION

I, **NYAPENDI ANNA TEREZA HOPE**, hereby declare that I personally conducted this research and swear based on my knowledge, the research was conducted in line with the Uganda Christian University standard ethics therefore no plagiarism was carried out.

Signature :

Thisday of2026

DEDICATION

To:

God - Not to us, O LORD, not to us, but to your name give glory, for the sake of your steadfast love and your faithfulness.

Me - To the younger me, who dared to dream, To the me who needed to hear these words, For the woman I have become through this journey, For who I was when I began writing this book, and who I am now.

To myself, for showing up, persevering, and seeing it through to the end.

Nath, *You, yourself as much as anybody in the entire universe, deserve your love and affection!*

I wear the whole armour of the righteous God Almighty and obeyed. He has Sent His Angels to Surround me. So, I offer You the Humble Instalment. But Poor me, it is inadequate.

“You yourselves are my witnesses that I said, ‘I am not the messiah, but I have been sent ahead of him.’ The bridegroom is the one to whom the bride belongs; but the bridegroom’s friend, who stands by and listens, is glad when he hears the bridegroom’s voice. This is how my own happiness is complete. He must become more important while I become less important.”

John3:28-30

ABSTRACT

This dissertation investigates how oil and gas activities affect the environment and climate in Uganda, concentrating specifically on the Albertine Graben. Using a qualitative, descriptive-analytical research design, the study assesses the effectiveness of Uganda's regulatory framework, including the 1995 Constitution of the Republic of Uganda and the country's petroleum laws. This research evaluates how industrial activities such as drilling, refining, and transportation contribute to habitat loss, pollution, and climate change. The paper identifies weak enforcement and the reluctance created by stabilization clauses as primary obstacles to environmental protection. It recommends strengthening enforcement mechanisms, ensuring prompt compensation for affected communities, and mandating the public disclosure of petroleum contracts to enhance accountability.

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To the friend, enemies and haters, your wishes, words and actions made me stronger, bigger, better and extra ordinary. If you only knew ...

Forever grateful to you'll, may God bless You'll.

APPROVAL

This dissertation was conducted with my direct Oversight and instructions as the University Supervisor.

SIGNATURE

MS. DINAH MUKASA

THISDAY OF , 2026

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ACRONYMS AND ABBREVIATIONS

ACODE - Advocates Coalition for Development and Environment.

CNOOC - China National Offshore Oil Corporation.

CBD - Convention on Biological Diversity.

COMESA - Treaty Establishing the Common Market for Eastern and Southern Africa.

EACOP - East African Crude Oil Pipeline Project.

EIA - Environmental Impact Assessment.

EITI - Extractive Industries Transparency Initiative.

ESIA - Environmental and Social Impact Assessment.

ICCPR - International Covenant on Civil and Political Rights.

MEMD - Ministry of Energy and Mineral Development.

NFA - National Forestry Authority.

NEMA - National Environmental Management Authority.

O&G - Oil and Gas.

PAU - Petroleum Authority of Uganda.

PEPD - Petroleum Exploration and Production Department

PSA - Production Sharing Agreements.

UNOC - Uganda National Oil Company.

UDHR - Universal Declaration of Human Rights.

US - United States.

UNESCO - United Nations Educational, Scientific and Cultural Organization.

UNFCCC - United Nations Framework Convention on Climate Ch

CHAPTER ONE

1.1 Introduction

The establishment of the Environmental laws and institutions were an initiative by the stakeholders in direct response to many calls by the local communities and civil society to strengthen the institutional framework for fighting/addressing the negative environmental and climate impacts of oil and gas activities¹. It should be noted that these initiatives have registered considerable success in regulating, prosecution and stopping most untenable Oil and Gas activities. For example, non-Governmental organisations like Greenwatch in cases have prosecuted a number of cases whose outcomes have helped in the conservation of the environment thus protecting the climate from all activities that could negatively affect it a case in point; Oil and gas activities².

Following Uganda's modern finding of oil reserves in Uganda, both excitement and concerns for the environment and climate have been sparked. Whereas the possible economic merits are indisputable, mastering the effects of oil and gas operations on the environment and climate is critical. This research digs into the case of Uganda

¹ Article 245, The Constitution of the Republic Of Uganda, 1995.

² like *Greenwatch v Attorney General and NEMA*, Misc. Cause. No. 140 of 2002.

found in Africa, which lies at the center of this unfolding story through assessing the outcomes of oil and gas activities on the environment, this paper's aim is to elucidate on the Complicated situation flaring in Uganda and accords to reasoned judgment about the future of oil growth in Uganda³.

1.2. Background

Oil and gas are natural resources whose discovery and exploration in Uganda, date back to the Precolonial era. During that time the natives used several resources. Although the utilisation of Natural resources like minerals at that time was at low rate, as time went on various resources were discovered and Oil and Gas was no exception⁴.

Oil in the Albertine Graben was first discovered by government geologist E.J. Wayland in the 1920s, and he documented his findings in his book Petroleum in Uganda. The initial oil well was drilled in Butiaba around 1938, but exploration was halted due to the outbreak of World War II⁵. Activities resumed around 2006 when Hardman Petroleum, now Tullow, made the first commercially viable oil discovery in Kaiso Tonya.

Following the discovery of oil in the Albertine Region, Uganda opened up to both local and international financiers and oil companies, such as China National Offshore Oil Corporation and TotalEnergies. This was necessary because Uganda lacked the

³ <https://www.unoc.co.ug/managing-environmental-risks/> accessed on the 20th day of November 2025;

⁴ Kenneth Kakuru and Irene Ssekyana: Environmental Law Handbook, Volume 1

⁵ E.J.Wayland, Petroleum in Uganda, Entebbe 1925 .pp.60,4 accessed on 02.January. 2026.

financial resources to independently undertake the processes required for oil and gas exploration and extraction⁶.

In light of this, Uganda experienced several changes, including the displacement of both residents and wildlife. Some affected parties received compensation, while others did not, even though existing laws and policies stipulate that adequate compensation should be provided to all those impacted⁷. Ugandan laws also govern the ownership, management, and regulation of oil and gas activities. For instance, Article 244 of the Constitution of the Republic of Uganda states that all natural resources are held by the Government. This provision is reinforced by the Petroleum (Exploration, Development and Production) Act⁸.

Natural resources like Oil are a very great treasure though non-renewable resources that contribute highly to the income of the country thus bringing about development in the state, though only for a short time. It clearly calls upon every stakeholder to turn their attention to what will last for generations.

According to Nwankwo, human well-being and survival depend on the resources obtained from the environment. Warfare is a common means by which humans seek access to these resources. Oil, gas, and minerals are essential natural resources that fulfill fundamental human needs⁹. Whether used for transportation, heating, or the production of everyday goods and services, these resources serve as essential raw material inputs. Modern development would be difficult to sustain without

⁶ E.J.Wayland, Petroleum in Uganda, Entebbe 1925 .pp.60,4 accessed on 02.January. 2026.

⁷ Albertine Region Sustainable Development Project (ARSDP) Resettlement Policy Framework. Volume 1 Final Draft Report November 2013, accessed on 28th, January 2026. And the case of Asuman Irumba and Anor V URA, CIVIL APPEAL NO: 02 OF 2014 .(the compensation should be timely, adequate and prompt)

⁸ S.4 of the Petroleum (Exploration, Development and Production) Act Cap 161.

⁹ Nwankwo (2015)

consistent access to them at reasonable and affordable prices. For these reasons, they are regarded as strategic resources, vital to both national and global well-being and prosperity¹⁰.

Oil accounts for the largest share of global energy consumption, with the exact proportion varying by country. The oil and gas industry encompassing exploration, production, distribution, refining, and retail is the world's largest industry by dollar value¹¹. Nations worldwide seek natural resources beyond their own borders, using both governmental and non-governmental channels and employing various bilateral and multilateral strategies to do so.

In order to extract the oil and Gas from the ground Several Activities take place and these affect the Environment and the Climate in one or another. This Activities are in three phases that is to say Upstream, Midstream and Downstream¹².

These actions affect the environment and climate both positively and significantly negatively. For example, enacting legislation, regulations, and policies to protect, conserve, and preserve the environment constitutes a positive impact, conversely, the negative impacts are pollution (air, land, water) displacement and so many more¹³.

In light of the background laid above, this study aims to examine the impact of oil and gas activities in Uganda.

¹⁰ Ibid

¹¹ the world Venn(2012).

¹² <https://www.unoc.co.ug/managing-environmental-risks/> accessed on the 20th day of December, 2025.

¹³ Ibid

1.3 STATEMENT OF THE PROBLEM

As stated by the late Keneth Kakuru in his paper delivered at a training workshop aimed at strengthening the enforcement of environmental law for police investigators and state prosecutors in Uganda, which took place between the 23rd and 25th July 2006, the Environment is a free gift from God to Humanity and that several modes have been taken to preserve and conserve the environment throughout the ages for example Religious, cultural and historical roots¹⁴.

Oil and gas activities frequently take place closely to populated areas, Utilised premises or occupied places that can have positive or negative impact on the surrounding and this includes the climate.

According to available sources, more than 30,000 square kilometers of farmland and rangeland in North America have been lost to oil and gas drilling sites. These operations are also expanding across much of Africa, particularly in North Africa, and are increasingly occupying roads, storage facilities, and thousands of acres of land for drilling activities¹⁵.

In Uganda specifically the Albertine region, a large number of Agricultural activities have been disrupted, game parks and/or wildlife have been displaced these have to some extent burdened to natives and there activities for it was on several occasions reported on media houses like NBS that displaced animals like elephants have attacked natives¹⁶.

¹⁴ Kenneth Kakuru and Irene Ssekyaana: Environmental Law Handbook, Volume 1

¹⁵ Eric, 2015.

¹⁶ The Observer Report of July 6th 2015.

Furthermore, the environmental human activities, specifically land use changes in the Albertine region due to oil drilling have put the lives of local communities at risk.¹⁷.

Efforts to conserve, preserve, and protect Uganda's environment and climate persist despite government actions, as reflected in legal documents like the National Oil and Gas Policy and the Constitution¹⁸. Media coverage has also highlighted environmental threats linked to oil and gas activities, including conflicts between oil and gas companies and local communities¹⁹.

Uganda's nascent oil and gas industry, while offering significant economic potential, poses a major threat to its sensitive ecosystems and climate change commitments due to inadequate regulatory frameworks and documented environmental damage, thus prompting the study.

1.4 OBJECTIVES OF THE STUDY.

1.4.1 General Objective.

To examine how oil and gas activities affect Uganda's environment and climate.

1.4.2 Specific Objectives.

1. To Identify the regulatory framework governing the Oil and Gas operations and the Environment and Climate in Uganda.
2. To Examine the effect of these operations on the Environment and Climate.

¹⁷ (Kisembo, 2019).

¹⁸ (International Alert, 2013).

¹⁹ (Kisembo, 2019) page.2.

3. To assess/critique the role of the Laws and the institutions put in place to monitor these activities.

4. To recommend the possible remedial steps that can be implemented to overcome Already caused harm.

1.5. RESEARCH QUESTIONS

1.5.1. What types of oil and gas operations are currently being carried out in Uganda?

1.5.2. What is the impact of the Oil and Gas activities on the environment and climate in Uganda?

1.4.1. What are the different approaches that can be used to reduce the environmental and climatic effects of oil and gas activities?

1.6. PURPOSE OF THE STUDY

The primary aim of this study is to evaluate how oil and gas activities affect the environment and climate in Uganda.

1.7. SIGNIFICANCE OF THE STUDY - i.e., what is the importance of the research.

The study's findings will help clarify the relationship between oil and gas companies, the Ugandan government, and the people of Uganda.

The findings of this research will help the Ugandan government develop strategies to address challenges faced by local communities, including pollution, deforestation, impacts on agriculture, and effects on wildlife parks that are linked to nearby oil and gas operations.

This study will be valuable to other students researching in the mining sector and to those seeking to further explore the field, as it provides a literature review foundation for faculties of mining and petroleum in institutions beyond Uganda Christian University (UCU).

This research will also benefit other researchers in mineral exploration and those looking to expand on mining topics, as it offers a literature review foundation for faculties of petroleum and mining at universities other than Uganda Christian University.

1.8. SCOPE OF THE STUDY

1.8.1 Content Scope

The specific aim of this study was to assess the effects of oil and gas exploration activities on Uganda's environment and climate. This assessment is based on two variables: the dependent variable, which is the environment and climate, and the independent variable, which is exploration activities.

1.8.2 Geographical Scope

The study was conducted from Uganda as a Country, Specifically the Albertine and the entire Country at Large.

1.8.3. Temporal (time -based) scope

This research was carried out over a four-month period, from October 2025 to January 2026, during which data was collected and organized.

1.9. Working Definitions of Key Terms

Oil refers to any neutral, non-polar substance that remains a thick liquid at room temperature and is both water-repellent and able to dissolve in fats. It contains high levels of carbon and hydrogen and is typically flammable and slippery²⁰.

According to Olaki, oil and gas exploration, also called hydrocarbon exploration, involves petroleum geologists and geophysicists searching for deposits of hydrocarbons such as oil and natural gas beneath the Earth's surface. This process falls under the field of petroleum geology²¹.

Exploration, refers to the undertaking of operations on land or at sea aimed at discovering petroleum deposits. It relies on geophysical, geochemical, and geological methods to locate potential resource reserves. This process is essential in sectors like mining and oil and gas, as it provides the basis for identifying new reserves. Geologists, geophysicists, and engineers typically collaborate to study the landscape, subsurface structures, and rock formations using techniques such as remote sensing, seismic surveys, and exploratory drilling²².

Exploratory oil well drilling refers to a test borehole drilled on land or at sea to determine the amount of oil and/or gas that can be recovered from a site that is likely but not yet confirmed to contain reserves. It is essentially a deep hole drilled by petroleum or natural gas companies in search of a new source of fossil fuels²³.

Drilling refers to boring into the Earth's surface to discover petroleum, determine the size of a discovered deposit or extract the petroleum that has been found.²⁴.

²⁰ Ndimbwa, 2014.

²¹ Olaki, 2016.

²² S.2 of the Petroleum (Exploration, Development and Production) Act Cap 161.

²³ Kashambuzi, 2010.

²⁴ S. 2 of the Petroleum(Exploration, Development and Production) Act Cap 161.

Environment is defined by the **Oxford English Advanced Learner's Dictionary 10th Edition** of the to mean, circumstances surrounding a person, animals, plant lives and/or operate. This emphasises the physical surroundings and Conditions²⁵.

According to **Merriam - Webster Dictionary 12 Edition**, Environment refers to circumstances, objects, and/or conditions which surround one. This definition is broader and encompasses both tangible and intangible conditions that make up our surroundings.

And to **cambridge dictionary**, environment is also described as the air, water, and land in which, or on which, living organisms exist²⁶.

Climate change refers to a shift in climate that results directly or indirectly from human activities altering the composition of the global atmosphere, beyond the natural climate variations observed over similar time periods.²⁷ This has been domesticated in Uganda through the enactment of the National Climate Change Act, Cap 182.

A climate system encompasses the atmosphere, hydrosphere, biosphere, and geosphere as a whole, along with the interactions between them²⁸.

Pollution means any direct or indirect change to the physical, thermal, chemical, biological, or radioactive properties of any part of the environment caused by discharging, emitting, or depositing waste, or by producing noise. This includes actions that negatively affect any beneficial use, create conditions that are

²⁵ Oxford Learner's Online Dictionary. (n.d.)Environment. Retrieved from Oxford Learner's Dictionaries: <https://www.oxfordlearnersdictionaries.com/definition/english/Environment>

²⁶ Online Cambridge English Dictionary. (2016). Environment. Retrieved from Cambridge Dictionary: <https://dictionary.cambridge.org/dictionary/english/Environment>.

²⁷ Article 1 of the United Nations Framework Convention on climatic Change, 1992.

²⁸ Article 1 of the United Nations Framework Convention on climatic Change, 1992.

hazardous or potentially hazardous to public health, safety, or welfare, harm animals, birds, wildlife, fish, aquatic life, land, water sources, or plants, or that violate any condition, limit, or restriction set under a license issued by this Act²⁹;

1.10. Conceptual Framework

The model illustrates how oil and gas activities in Uganda are connected to the country's environmental and climate conditions.

Independent variable

(Oil and Gas Activities)

Upstream Activities (Exploration, Discovery, Drilling, Production, Acquisition of Land, Commissioning etc)

Midstream Activities (Storage, Transportation etc)

Downstream Activities (Refinery, Conversion, Marketing etc)

²⁹ Section 2 of the Petroleum(Exploration, Development and Production) Act Cap 16

Dependent variable (Environment and Climate)
Deforestation
Waste Disposal
Pollution(noise,water, and Air)
Impacts on the activities in the Game parks
Decommissioning/Abandonment
Land Degradation
Impact on agriculture etc

1.11. LITERATURE REVIEW

1.11.1 Introduction

This chapter critically reviews the issues related to the effects of oil and gas activities on Uganda's environment and climate that have already been explored and analyzed in existing literature. It was important to consult the most prominent authors of earlier publications on these topics, including sources such as the websites of oil companies like the Uganda National Oil Company and the Petroleum Authority of Uganda. The literature review was comparative and aligned with the specific objectives of the study to help the writer assess the significance of each author's contribution.

1.11.2 Aspect of Property Rights.

This concept was introduced by John Locke in 1690. It is based on the natural laws he identified, which grant individuals the right to claim ownership and exert control over elements in the world such as land and other material resources³⁰. Given the wide range of activities that human beings get involved in daily, they acquire property, this implies that people have control over their property which could be Land, Farms, and even the tangible wealth in it. Essentially, Locke's theory provides a justification for why private property rights are legitimate. His explanation based

³⁰ John Locke, theory of property rights in the Second Treatise of Government (1690)

on natural law differs from other explanations that were common in the early 18th century.

Thomas Hobbes argued that laws safeguarding private property ought to be established by political authority³¹. In contrast, David Hume later contended that property laws become legitimate through the mutual recognition and agreement of a society³².

Locke's perspective has occasionally been used in modern political theory as a foundation for libertarianism. However, providing a basis for control rights is not the same as determining how strong or extensive those rights are.

While individuals have the right to own property alone or jointly with others, Article 244 states that minerals and petroleum belong to the Government. Specifically, Article 244(1) provides that, subject to Article 26 of the Constitution, the Government holds ownership and control over all minerals and petroleum located in, on, or beneath any land or waters in Uganda, on behalf of the Republic of Uganda³³.

Article 244(2) gives the legislative arm of government the power to make laws that regulate all the activities involved in that field.

Relating to the Environment, the Constitution further sets pace for its Protection and preservation under Article 245. It stipulates that Parliament shall enact laws providing for measures to:

(a) safeguard and preserve the environment from abuse, pollution, and degradation;

³¹ Thomas Hobbes, his work *Leviathan* (1588–1679)

³² David Humes , the origin of justice and property, (1711-1776)

³³ Article 244 of the constitution of the Republic of Uganda, 1995.

- (b) manage the environment in a way that supports sustainable development; and
- (c) promote awareness about the environment³⁴.

Having known that Oil and Gas are the Minerals and Petroleum stated in the law, and that the Government has control over it all, the Parliament equally contributes by making the laws that regulate the oil and Gas activities. The good news is that these laws include the laws that protect the environment. Once oil and Gas has been discovered from anywhere, the Government takes over the property through the process called compulsory acquisition, which involves adequate compensation to the owner³⁵. Importantly, the Government, in everything that the Government does it Takes into consideration the Environment and Climate, this is Capture under the oil and gas laws, for example Under the Petroleum (Exploration, Development and Production) Act Cap161³⁶, provides for the decommissioning Plan, here the Government in the process of licencing/Authorisation Oil companies to explore oil and gas, it puts into consideration decommissioning and this implies that after every activity, the oil company has to put back the area to the state in which it found. This Shows the Concern for the Environment.

So the Government owns the Resources, the minerals, and controls the activities, but it also Guarantees a safe environment and Climate.

Review of Exploration activities taking place in Uganda

1.11.3. Exploratory Drilling Activities and the Environment

³⁴ Article 245 of the constitution of the Republic of Uganda, 1995.

³⁵ Land Acquisition Act Cap. 235

³⁶ Section 112 of the Petroleum (Exploration, Development and Production) Act Cap161

This involves Exploration, Discovery, Drilling. Where:

Exploration means carrying out activities on land or at sea to locate petroleum. This includes geological, geophysical, and geochemical surveys, as well as drilling wells to discover petroleum deposits and assess them³⁷;

Discovery, means confirming, through the drilling of a well, the existence of petroleum that was previously unknown and that can be brought to the surface in a measurable flow using standard petroleum industry methods³⁸;

Drilling refers to boring into the earth's surface in order to make a discovery, determine the extent of an existing discovery, or extract the petroleum that has been found³⁹;

This falls under the upstream phase of oil and gas operations, and in Uganda it is specifically conducted at the Kingfisher and Tilenga sites, as stated on the UNOC websites.⁴⁰

Extracting oil is inherently a lengthy and complex process. In the 5- to 13-year exploration phase, potential oil reserves are identified and assessed through geological analysis. This stage also involves building roads and other necessary infrastructure on-site, conducting seismic surveys, and drilling exploratory wells.⁴¹

³⁷ Section 2, Petroleum (Exploration, Development and Production) Act Cap161

³⁸ Section 2, Petroleum (Exploration, Development and Production) Act Cap161

³⁹ Section 2, Petroleum (Exploration, Development and Production) Act Cap161

⁴⁰<https://www.unoc.co.ug/upstream/the-kingfisher-project/> and <https://www.unoc.co.ug/upstream/the-tilenga-project/> accessed on the 22nd of December, 2025.

⁴¹ Mudumba, T., Stimpson, B., Jingo, S., & Montgomery, R. A. (2023). The implications of global oil exploration for the conservation of terrestrial wildlife. *Environmental Challenges*, 11, 100710.

Extracting unconventional oil like tar sands poses unique challenges, often extending prospecting phases. If contracts and permits are secured, the project moves to development (4-10 years), where infrastructure like treatment sites and extraction apparatus are scaled up for commercial production.

Extraction then begins, yielding oil continuously if commercially viable, with infrastructure built for storage and transport via pipelines, ships, etc⁴². Once development is complete, oil extraction commences and continues to produce barrels of oil on an ongoing basis for as long as extraction remains commercially viable. During this extraction phase, infrastructure is also constructed to store and transport the recovered oil through pipelines, ships, and vehicles.⁴³

Following completion of the preceding phase, the project shall proceed to the abandonment stage. During this stage, the relevant corporate entities shall decommission extraction sites in compliance with applicable local laws and regulatory requirements. Such decommissioning shall continue until the oil deposit is exhausted or continued extraction is rendered economically infeasible. The duration of this phase may extend for several decades and is contingent upon the stringency of regulatory provisions and any stipulated obligations for ongoing environmental monitoring⁴⁴

In many developing countries, particularly in Uganda, local populations suffer as a result of these activities, people are displaced, fires, oil spills, contamination of the

⁴² Polus, A., & Tycholiz, W. (2016). Why is it taking so long? Solving the oil extraction equation in Uganda. *African and Asian Studies*, 15(1), 77–97.

⁴³ Ibid

⁴⁴ Ibid

environment Wildlife is no exception⁴⁵ and so is the whole environmental setup of the community, this in the long run affects the Climate adversely. This situation can leave them exposed to displacement, since governments or corporations may take over land for exploration with little or no compensation provided.

Cotula contends that oil companies frequently depend on legal systems that inadequately recognize rights and environmental concerns, which leaves indigenous and local communities vulnerable to displacement and insecurity⁴⁶. This weakens the constitutional guarantee of the right to a clean and healthy environment under the Constitution of the Republic of Uganda, 1995⁴⁷.

The Advocates Coalition for Development and Environment (ACODE) urged the establishment of a commission of inquiry to examine how land was being used by oil and gas exploration companies, which was fueling anger and resentment in the oil-rich Albertine graben⁴⁸.

Commercially viable oil deposits were discovered in the Albertine graben in 2016, prompting efforts to develop effective management strategies to support the country's growth and development. An estimated 6.5 billion barrels of oil lie beneath more than 60 percent of the Albertine graben. Despite these findings, the region has faced a range of environmental problems in recent years, including forced evictions and deforestation⁴⁹.

⁴⁵<https://www.unoc.co.ug/managing-environmental-risks/> Accessed on the 22nd of December, 2025.

⁴⁶ Cotula, 2012.

⁴⁷ Article 39 of the Constitution of the Republic of Uganda, 1995.

⁴⁸ The Observer Report of July 6th 2015.

⁴⁹ The Observer Report of July 6th 2015.

Ofuoku et al. studied the social impact of oil and gas exploration on small-scale farmers in oil-producing communities within the Central zone of Delta State, Nigeria. Although their primary emphasis was on the environmental issues affecting these communities, they surveyed 120 respondents using questionnaires. Based on the data collected, they found that soil erosion, noise pollution, bush burning, land degradation and pollution, water pollution, air pollution, large-scale deforestation, and acid rain were the main environmental problems in the area studied⁵⁰.

Environmental conditions are closely tied to a country's historical, legal, and political background. In many states, the government has a key role in conservation and protection, regulating all activities that could harm the environment, especially those involving natural resources such as oil and gas. For example, in most Middle Eastern countries, oil and gas resources are primarily state-owned, which gives the government authority over exploration, production, and how revenues are distributed⁵¹.

According to the Joint E&P forum, after a promising geological structure is identified, drilling exploratory boreholes is the only way to verify the presence of hydrocarbons, as well as the reservoir's thickness and internal pressure. Wells drilled for the purpose of discovering hydrocarbons are referred to as exploration wells, or "wildcats" in drilling terminology. The placement of a drill site is determined by the features of the underlying geological formations. In most cases, it is possible to align

⁵⁰ Ofuoku et al (Ofuoku, 2014)

⁵¹ Ross (2012)

environmental protection requirements with logistical needs and the requirements for effective drilling⁵².

When it comes to oil and gas activities on land; At the selected site, vegetation is removed, the drilling area is leveled, and a pad is built to house the drilling equipment and support services. A pad for a single exploration well typically covers about 15,000 m². The design and construction of the pad vary based on the terrain, soil conditions, and seasonal factors⁵³.

Land based drilling rigs and support equipment are usually broken down into smaller loads to make transportation easier. Depending on their weight, the site location, load size, and accessibility, rigs can be moved by land, air, or water. Once they arrive at the site, the rig and a self-contained support camp are assembled⁵⁴. Undoubtedly, the forum did not address how exploratory well drilling affects land use and the environment more broadly, which is why this research became necessary.

Reports indicate that these are typically graded roads about 20 feet wide. In areas where the terrain is hard to navigate or where sensitive surface resources could be damaged, particularly in wilderness regions, there's increasing interest in using helicopters instead of road access⁵⁵.

According to the Joint E&P forum, concerns about road construction and site preparation focus on vegetation clearing, potential erosion, and alterations to surface hydrology. Other issues include vibration and noise from earth-moving

⁵² Joint E&P forum (2017, p.4)

⁵³ Ibid

⁵⁴ Ibid, p.6

⁵⁵ Ibid

equipment, disruption to local communities and wildlife, impacts from population influx and settlement along new access routes, drainage problems, soil contamination, habitat loss, and noise generated during construction⁵⁶.

Exploration and production activities give rise to a range of human, socio-economic, cultural, environmental, and climatic issues. This research illustrated more on this by particularly relating oil and gas exploratory well drilling activities and Environment and the Climate⁵⁷.

It's been reported that exploratory well drilling typically takes 1-2 years, with 2-3 wells drilled⁵⁸. The environmental effects depend on the well's location, for example, desert versus mountain meadow. A preliminary review examines potential environmental and climate threats and mitigation steps before plans are finalized⁵⁹.

Land being a very treasured resource, several reports, including a study by the Uganda Land Alliance, show that oil exploration activities such as the drilling of exploratory wells have already resulted in conflicts, displacement, and an influx of migrants who are competing for opportunities in the Albertine region⁶⁰.

This rapidly growing displacement is likely to cause population growth, greater pressure on land, more environmental problems, and increased competition between local residents and newcomers. It may also create high demand for the area's already limited social services, such as education, healthcare, and water⁶¹.

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ Oil and Gas Journal, June 7, 2012, p.66-67.

⁵⁹ Wondolleck 2013.

⁶⁰ Uganda Land Alliance, 2011, p.6; Bomuhangi and Doss, 2012, p.23.

⁶¹ Ibid

This large scale movement also affects government spending and resource allocation, so it's important to track environmental issues, population changes, and shifts in social infrastructure, such as education and health facilities and other infrastructures for instance roads and telecommunications⁶².

There are also documented cases of rising health and other social problems linked to oil exploration. For example, studies show that in Nigeria and Ecuador, communities have faced greater health risks due to pollution from oil operations. There are also risks of migrant populations spreading diseases to their new communities⁶³. Much as Uganda Land Alliance's literature is strong, more proof was needed which necessitated further research.

Oil and gas activities are labor-intensive and a complicated journey by nature. It can take close 15 years to finish the exploration phase⁶⁴. If agreements and licenses are secured from the government, the project can move on to the development stage. In this phase, processing facilities, other supporting infrastructure, and limited extraction equipment are expanded to prepare for commercial production. This phase is Known as the Midstream stage in Oil and gas Activities⁶⁵.

For Polus and Tycholiz, this phase may take around 10 years. Once development is finished, oil is extracted and produced in barrels for as long as the reserve remains

⁶² Ibid

⁶³ Dadiwei (2013).

⁶⁴ Ibid.

⁶⁵ Section 2 of the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act Cap 162.

profitable. During the extraction stage, infrastructure is also constructed to store and transport the recovered oil using pipelines, ships, and vehicles⁶⁶.

Once the formation runs out of oil, or extraction becomes too expensive to continue, the project enters the cessation stage. At this point, companies shut down the extraction sites in line with local regulations. This phase can take decades, depending on how strict the regulations are and whether ongoing environmental monitoring is required⁶⁷.

The oil and gas extraction process is prone to accidents because it is complex, often operates under time pressure, and involves handling hazardous materials. A key example is the 2010 Deepwater Horizon spill, which released over three million barrels of crude oil into the Gulf of Mexico⁶⁸. The oil spill caused long-term damage to both the ecosystem and public health. It also resulted in the death and injury of many animals and severely disrupted the livelihoods of communities dependent on the Gulf⁶⁹.

In a similar way, the 1989 Exxon Valdez spill in Alaska's Prince William Sound showed how accidents can happen when transporting oil through sensitive ecosystems. An oil tanker grounded on Bligh Reef and released 42 million liters of crude oil, which spread along roughly 750 km of the Alaskan coast⁷⁰.

⁶⁶ Polus, A., & Tycholiz, W. (2016). Why is it taking so long? Solving the oil extraction equation in Uganda. *African and Asian Studies*, 15(1), 77-97.

⁶⁷ Darko, E. (2014). Short guide summarising the oil and gas industry lifecycle for a nontechnical audience. Overseas Development Institute.

⁶⁸ Shultz, J. M., Walsh, L., Garfn, D. R., Wilson, F. E., & Neria, Y. (2015). The 2010 Deepwater Horizon oil spill: The trauma signature of an ecological disaster. *The Journal of Behavioral Health Services & Research*, 42, 58-76

⁶⁹ Ibid

⁷⁰ Ibid

Thousands of sea otters (*Enhydra lutris*), hundreds of harbor seals (*Phoca vitulina*), approximately 250,000 seabirds, and countless marine invertebrates died due to poisoning, suffocation, hypothermia, and drowning. The events show that although oil extraction may address energy demands, it remains a major threat to biodiversity conservation.⁷¹.

In Uganda, the environmental concerns identified include;- oil spills, fires, waste management issues, and environmental contamination. As a result, there is a potential risk of negative effects on ecologically vital areas within the Graben, such as forests, national parks and water bodies not sparing international waters like Lake Albert and the River Nile.⁷².

1.11.4. The Impact of Oil and Gas Activities on the Environment and Climate.

The prime sources of environmental impacts from oil and gas production are production operations like maintaining or replacing facility equipment, waste

⁷¹ Mudumba, T., Stimpson, B., Jingo, S., & Montgomery, R. A. (2023). The implications of global oil exploration for the conservation of terrestrial wildlife. *Environmental Challenges*, 11, 100710.

⁷² <https://www.unoc.co.ug/midstream/kabaale-industry-park/> - accessed on the 22nd of December, 2025

management including produced water, noise from wells, compressors compressors, pump stations, flare stacks, vehicles, and machinery, the on-site presence of workers, and the risk of spills⁷³.

In his study on the environmental impact of oil and gas exploration in Uganda, Joshua Imoikor states that oil exploration has had detrimental environmental impacts globally, particularly in biodiversity-rich areas. The aftermath includes environmental degradation, habitat loss, reduced agricultural land, depleted aquatic resources, disrupted food chains, polluted water and land, and destabilized ecosystems⁷⁴.

Kuch and Bavumiragira explain how these activities may affect the available resources. Drilling oil in Uganda will introduce further environmental stressors for the country, including pollution, noise pollution, and other types of disturbance. Aquatic species are already being harmed by increasing water and air temperatures. In conventional oil and gas production, the primary sources of noise are compressor and pumping stations, producing wells that may involve flaring, and vehicle traffic. At a compressor station, noise level measure 64 to 86 dBA, decreasing to 58-75 dBA at a distance of one mile (1.6 km). This noise would lead to localized disturbances for residents, tourists, and wildlife⁷⁵.

According to them, noise caused by cavitation presents a serious risk to livestock, wildlife, and landowners. In the soil, seeds germinate, develop, and mature, drawing

⁷³<https://www.unoc.co.ug/managing-environmental-risks/>- Accessed on the 22nd of December, 2025.

⁷⁴ Joshua Imoikor ,The Environmental Impact Of Oil And Gas Exploration In Uganda, Feb 22, 2023 accessed on 22nd December 2025

⁷⁵ Kuch, S., & Bavumiragira, J. P. (2019). Impacts of crude oil exploration and production on environment and its implications on human health: South Sudan review. *International Journal of Scientific and Research Publications (IJSRP)*, 9(4), 8836.

on available water, air, and nutrients that support healthy plant growth for productive agriculture. When crude oil frequently spills onto farmland, it contaminates all organisms and renders the soil particularly the biologically active topsoil toxic and unfit for use. By reducing soil fertility, the oil makes most essential nutrients unavailable to plants and crops.⁷⁶

The recent loss of mangrove vegetation clearly illustrates the severe toxicity of oil spills on agricultural productivity. Because crude oil is denser than water, spills reduce and limit soil permeability. Organic hydrocarbons fill the soil pores, displacing air and water and depriving plant roots of vital nutrients. Soil properties that can degrade include appearance, infiltration rate, hydraulic conductivity, moisture content, and density. These changes impact root development, leaf growth stages, overall plant growth, and crop yield⁷⁷.

In summary, oil spills reduced crop yields and farm income, which subsequently affected the socio-economic wellbeing of farming communities⁷⁸.

The extraction of natural gas and crude oil can harm ecological resources through several effects: contaminating organisms with toxins, disturbing wildlife with noise and human presence, and causing animal deaths from collisions with vehicles or above-ground structures. Ecological resources are also affected by producing wells, supporting infrastructure, and access roads, which reduce habitat quality and disrupt living organisms⁷⁹.

⁷⁶ Ibid

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ Ibid

The presence of an oil field may disrupt migratory patterns and other behaviors in some species. If produced water is improperly discharged onto land or into surface water bodies, salinity can increase to levels that plants cannot tolerate⁸⁰.

Jones et al. state that wildlife exposed to petroleum based chemicals and other contaminants in reserve pits and water management systems faces ongoing risk. Animals may drown after becoming trapped in oil, or suffer fatal cold stress if oil compromises the insulating properties of feathers and fur.⁸¹

Birds may ingest toxic amounts of oil through preening, while mammals may do so through licking. In areas where produced water and solid wastes containing naturally occurring radioactive material (NORM) are generated, mishandling these wastes can result in radioactive contamination of surface water or soils ⁸².

Oil appears to affect seed germination in two ways. At high levels of crude oil contamination, seeds are likely to be prevented from developing because the oil penetrates the seed coat's outer layer⁸³.

At low levels of contamination, the presence of oil delays seed germination. The effect of crude oil on plants is especially concerning because it damages several plant parts critical for survival and health, thereby inhibiting plant growth and development⁸⁴.

⁸⁰ Ibid

⁸¹ Jones, N. F., Pejchar, L., & Kiesecker, J. M. (2015). The energy footprint: How oil, natural gas, and wind energy affect land for biodiversity and the flow of ecosystem services. *Bioscience*, 65(3), 290–301.

⁸² Kuch, S., & Bavumiragira, J. P. (2019). Impacts of crude oil exploration and production on environment and its implications on human health: South Sudan review. *International Journal of Scientific and Research Publications (IJSRP)*, 9(4), 8836.

⁸³ Ibid

⁸⁴ Ibid.

Studies have shown that oil affected plants often have dehydrated leaves and exhibit general chlorosis symptoms, indicating water deficiency. This dehydration may explain the observed reduction in leaf area⁸⁵.

Studies suggest that the significant drop in final germination rates across all species may be due to the harmful effects of crude oil on seeds and to poor soil aeration. Multiple experiments have found that crude oil spills can impact plants in the following ways: prevent germination; extend the lag phase by inducing stress that delays germination; block roots from taking up water and nutrients, leading to deficiencies in other parts such as leaves; hinder stump regrowth; and alter the anatomical structure of leaves⁸⁶.

Operators are also required to develop an Environmental and Social Impact Assessment (ESIA) for every component of the project and submit to Uganda's National Environment Management Authority (NEMA) for approval.⁸⁷

1.11.5. The mitigating factors associated with the impact of oil and gas activities on the environment and climate.

Uganda has taken intentional actions to make sure that the effects are mitigated, and these actions include⁸⁸:

Institutions have been established to regulate the oil and gas industry, such as the Petroleum Authority of Uganda. Section 2 of the Petroleum (Exploration, Development and Production) Act Cap 161 also refers to it as the Authority. This

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ total-uganda-un-treaty-case-study.

⁸⁸<https://www.unoc.co.ug/managing-environmental-risks/> accessed on the 22nd of December, 2025.

Authority is created under Section 9 of the same Act as a corporate body, and its functions are set out in Section 10 of the same Act⁸⁹.

Other institutions, including the Ministry of Water and Environment, Uganda Wildlife Authority, National Forestry Authority, National Environment Management Authority, the National Climate Change Unit, and others, which have played a major role in protecting the environment from the impacts of oil and gas activities on the environment and climate.⁹⁰

Enacting new laws like the Petroleum Acts to regulate the upstream and midstream operations. Laws like Petroleum(Exploration, Development and Production) Act Cap161, petroleum(Refining, Conversion, Transmission and midstream storage) Act Cap 162, National Climate Change Act Cap 182, National Environment Act Cap. 181, National Oil and Gas Policy for Uganda, 2008, The Petroleum (Waste Management) Regulations, 2019, The National Environment (Environmental and Social assessment) regulations, 2020, and more have done a lot in the regulation, penalising and/or punishing those that default.

Existing legislation, such as the National Environment Act and the Uganda Wildlife Act, have been revised to incorporate specific provisions that address oil and gas operations. The amendments introduce legal requirements, standards, and oversight

⁸⁹ Petroleum (Exploration, Development and Production) Act Cap161

⁹⁰ Peter, A., Kivengere, H., & Tumasirwe, B. (2013). Escaping the oil curse and making poverty History. A review of the oil and gas policy and legal framework for Uganda.

mechanisms to ensure that petroleum activities comply with environmental protection and wildlife conservation obligations⁹¹.

The National Oil Spill Contingency Plan has been developed under the Office of the Prime Minister to ensure a rapid and coordinated response to major oil spill incidents. The plan establishes roles, procedures, and communication protocols among relevant agencies so that oil spills are managed efficiently, minimizing environmental damage and public health risks⁹².

Oil companies such as UNOC (Uganda National Oil Company), whose primary mandate is to manage the Ugandan Government's commercial interests in the petroleum sector and to ensure resources are exploited sustainably, have also made every effort to safeguard the environment and climate. UNOC has also put in place safe measures to mitigate any negative impacts and these include⁹³:

An Environmental Policy has been established, representing a commitment by the Board and senior management to contain impacts associated with UNOC's operations. The policy is reinforced by various procedures and guidelines, such as the waste management procedure and the oil spill response procedure, which help reduce these negative impacts⁹⁴.

⁹¹ S.3, 5, 79,96, 97, 104 and 197 of the National Environment Act Cap 181 and the provisions of the Uganda Wildlife Act Cap 315.

⁹² Peter, A., Kivengere, H., & Tusasirwe, B. (2013).

⁹³ Ibid

⁹⁴ Ibid

A risk assessment framework has been established to make sure that, before tasks and projects are carried out, risks are spotted, evaluated, and control measures are implemented⁹⁵.

At the project level, risk assessment is integrated into the ESIA (Environmental and Social Impact Assessment) process, which also enables stakeholders to participate in developing measures to mitigate impacts.

Relatedly, at the task level, task risk assessments are conducted to identify potential impacts, and appropriate control measures are implemented to reduce those impacts.

At the end of the project, site decommissioning is carried out. This is a detailed and structured process that makes sure no environmentally harmful materials remain and that the site is restored as closely as practically possible to its original condition.

Additionally, UNOC states that it is committed to carrying out both external and internal Environmental Audits. These audits help evaluate how effective the safeguards are, leading to continuous improvement.

Then, all the safeguards implemented are benchmarked against international standards, such as the IFC Environmental and Social Performance Standards, IPIECA guidelines, ISO standards, and others.

In conclusion, Oil and gas activities pose significant environmental and climate risks. Environmental risk is one of many factors management must navigate, and it can

⁹⁵ Ibid

impact budgets and timelines. While there are potential financial and energy security benefits, there are also crucial environmental and climate threats that can hinder and/or delay oil and gas drilling plans. Uganda's delicate ecosystem is prone to disruptions, and accidents or oil leaks can have long-lasting impacts. Furthermore, extracting and burning fossil fuels worsens climate change, which already affects Uganda disproportionately. Approaches prioritizing environmental protection, balance, and sustainability are crucial. Mitigating climate change and preserving Uganda's biodiversity require balanced measures. The government, businesses, and communities must weigh benefits and risks, explore alternative energy, and plan for sustainable outcomes to ensure Uganda's long-term health environment and climate.

1.12. RESEARCH METHODOLOGY

1.12.1 Introduction

This section outlines the methodology used in the research. It covers the research design, study area, study population, sampling procedures, and data collection method.

1.12.2. Research Design

This study used a descriptive analytical research design with qualitative methods. A qualitative methodology was employed because it provided an in-depth analysis of the events.

1.12.3. Study Population

This research's target population consisted of Citizens of Uganda, Environment, and all people who might have been affected by oil and gas activities on the Environment in Uganda or had knowledge of them. They were selected from licensed Oil Companies websites, Environmental and Climatic Organisations websites, statutes, case law both Ugandan and international cases and Activists in Uganda.

1.12.4. Data Types and Sources.

1.12.4.1 Secondary Data

This refers to second hand information that was not collected from its source for the first time. Secondary data was sourced from cases, statutes, media reports, textbooks, websites and other related reports and articles.

1.12.5. Data Collection Methods

Was Through comparing and contrasting cases and statutes to identify differences and similarities, or gaps in coverage of the statute. A comparative analysis of The

Petroleum (Exploration, Development and Production) Act Cap 161, Petroleum(Refining, Conversion, Transmission and MidStream Storage) Act Cap 162, the National Environmental Act Cap 181, The National Climate Change Act Cap 182 , The Petroleum (Waste Management) Regulations 2019, The National Oil and Gas Policy 2008 and the Current Situation in Uganda

All these Statutes were Compared However it is very unfortunate to find that adherence has not been done.

The Petroleum (Exploration, Development and Production) Act Cap 161(under Part VI) and the Petroleum (Refining, Conversion, Transmission and MidStream Storage) Act Cap 162 (Under Part VI) Both are principle laws that govern oil and gas activities in Uganda, these laws only Provide for Decommissioning Plan and funds upon cessation of Petroleum Operations. There is no more/exceptional or direct effort put in place to take care of the Environment and the Climate.

The National Environmental Act Cap 181, the National Climate Change Act Cap 182 ,the Petroleum (Waste Management) Regulations 2019 and the National Oil and Gas Policy 2008 which are not the Primary or Principal laws Governing Oil and Gas are the only ones Providing the Measures to protect, conserve the Environment and Climate.

The Petroleum (Exploration, Development and Production) Act Cap 161 and the Petroleum (Refining, Conversion, Transmission and MidStream Storage) Act Cap 162 were conducted. The National Environmental Act Cap 181, The National Climate Change Act Cap 182, The Petroleum (Waste Management) Regulations 2019, The National Oil and Gas Policy 2008 were compared.

1.12.6. Ethical Considerations

Ethical considerations were addressed by acknowledging information sources through proper citation of authors, websites, and laws relevant to the field of study. Participation and responses were voluntary, and no respondent was compelled to take part in interviews or complete the questionnaire.

1.12.7. Limitation of the Study

- Poor internet connection given the fact that most of the research was done online, internet connection was a challenge. However, the research kept on striving for better results.
- Difficulty in identifying the Authentic source since nowadays, there exists fake websites, so it was very hard to identify the proper sites.
- Limited access to the desired information since most Authentic sources are restricted.
- Time consuming: this is so because the study requires examination of the whole country.

1.12.8. Chapter Synopsis

The study is organised into four chapters. The first chapter serves as the introductory chapter, providing a brief background of the study, the research objectives, significance of the research explaining its importance, the scope and a detailed literature review on the research topic that clearly demonstrates how existing literature relates to the study at hand.

The second chapter examines the legal framework governing impact of oil and gas activities on the environment and climate in Uganda. The third chapter discusses

how these laws have been implemented, and finally, the fourth chapter presents findings and recommendations.

CHAPTER TWO

LEGAL REGIME GOVERNING THE IMPACT OF OIL AND GAS ACTIVITIES ON THE ENVIRONMENT AND CLIMATE IN UGANDA.

2.1 Introduction

The concern for the Environment and climate dates back in the ancient days as the ancient people used: Religious, cultural, and historical roots to conserve the Environment⁹⁶.

These environmental laws aim to safeguard human health, manage natural resources, and preserve the biosphere. This is commonly achieved through legislation that establishes standards for environmental planning, wildlife conservation, mineral resources, and land use, including oil and gas activities that may impact air, water, and soil.⁹⁷

The Discussion below entails the legal regime governing the impact of Oil And Gas activities on the Environment and Climate in Uganda. These include, laws, Regulatory bodies, policies and more This Chapter presents with, Local laws, policies, Contracts, case law and regulatory bodies, regional laws, International laws that govern the Oil and gas activities in Uganda.

⁹⁶ Kenneth Kakuru and Irene Ssekyana: Environmental law Handbook, Volume 1

⁹⁷ Kenneth Kakuru and Irene Ssekyana: Environmental law Handbook, Volume 1

2.2.1. LOCAL LAWS AND REGULATIONS:

2.2.1.1. The Constitution of the Republic of Uganda of 1995:

This is the Supreme law in Uganda, and all the laws enacted relating to oil and gas activities in Uganda should be in line with the constitutional provisions⁹⁸. The laws governing the oil and gas activities in Uganda have their roots in the Constitution as it sets forth various provisions governing the oil and gas activities in Uganda and empowers the government to enact the relevant laws accordingly. Below are some of the Constitutional framework/provision for the oil and gas activities in Uganda:

To begin with, the Constitution of the Republic of Uganda, 1995 vests ownership rights on the government of Uganda. This is clearly stated under the Constitution and is to the effect that subject to Article 26 of this Constitution, the entire property in, and the control of, all minerals and petroleum in, on or under, any land or waters in Uganda are vested in the Government on behalf of the Republic of Uganda⁹⁹.

This implies that after finding oil and gas, the government takes over the ownership of oil and gas and manages it for the citizens of Republic of Uganda¹⁰⁰. The Petroleum (Exploration, Development and Production) Act¹⁰¹, recites the same provision under section 4 and is to the effect that the Ugandan government owns all petroleum in its natural state, found in or under Ugandan land or waters, as per the

⁹⁸ Article 2 of the Constitution of the Republic of Uganda, 1995.

⁹⁹ Article 244(1), the Constitution of the Republic of Uganda, 1995.

¹⁰⁰ Article 244(1), the Constitution of the Republic of Uganda, 1995.

¹⁰¹ S. 4 of the Petroleum (Exploration, Development and Production) Act Cap 161

Constitution (Article 244). To clarify, the government holds these rights for the benefit of Ugandan citizens¹⁰².

In Nigeria, the same system of Ownership of Oil and Gas is provided for by their laws. Ownership is vested and controlled by the government of Nigeria¹⁰³. Ownership is vested in and controlled by the Government of Nigeria. The law provides that all mineral resources, including petroleum resources, beneath the soil in onshore or offshore areas within the geographical territory of Nigeria are the property of the Federal Government.¹⁰⁴.

However, in the United States (US), the rules are different, in that oil and gas is owned both privately and by governments. Landowners generally own mineral rights beneath their surface property. Development is managed through leases and governed by state laws, particularly the law of capture and correlative rights.¹⁰⁵

Ownership of oil and gas is pivotal and key to environmental management, as it allows the state to designate no-go area, mandate Environmental Impact Assessments (EIAs), and enforce compliance, particularly in sensitive eco-systems like the Albertine Graben¹⁰⁶. Therefore, Ownership of Oil and gas determines who has the power to say "no" or "not this way" to extraction activities, making it a

¹⁰² S. 4 of the Petroleum (Exploration, Development and Production) Act Cap 161

¹⁰³ Cap 116 Laws of Federation of Nigeria 1990 and available at Cap E17 LFN 2004 and section 1 of the Petroleum Industry Act, 2021, Nigeria.

¹⁰⁴ Redeemer's University Nigeria, Journal of Jurisprudence & International Law (RUNJJIL) Volume 2 2022

¹⁰⁵ <https://www.mondaq.com/guides/results/38/1224/all/united-states-oil-gas> retrieved on the 29th, January, 2026.

¹⁰⁶ <https://www.unoc.co.ug/managing-environmental-risks/#> retrieved on the 1st of February, 2026.

cornerstone of any legal strategy to mitigate the environmental and climate footprint of the energy sector.

When exploring oil and gas, there are three stages that is to say Upstream, Midstream and Downstream:

The upstream stage refers to an industry term describing the exploration of oil and natural gas fields, along with the drilling and operation of wells to produce oil and natural gas¹⁰⁷. Activities carried out at the upstream stage are Exploration, Land acquisition, Exploratory drilling and others. For example, in the upstream petroleum subsector, UNOC has two roles: managing state participation in production licenses and investigating and proposing new petroleum exploration ventures¹⁰⁸.

Midstream stage activities primarily consist of storage, processing, and transportation of petroleum products. Midstream is a critical phase in oil and gas operations that focuses on processing, storing, transporting, and marketing oil, natural gas, and natural gas liquids.¹⁰⁹ These activities are essential for connecting upstream production to downstream markets, facilitating the efficient movement of petroleum resources. Through the regulation and oversight of midstream activities, The PAU ensures Uganda's oil is safely and effectively transported for processing and export, supporting national economic growth and the development of the energy sector.¹¹⁰

¹⁰⁷ <https://www.worldbank.org/en/topic/climatechange/brief/qa-the-world-bank-group-and-upstream-oil-and-gas> accessed on the 1st of February, 2026.

¹⁰⁸ <https://www.unoc.co.ug/upstream/> retrieved on the 1st of February, 2026.

¹⁰⁹ <https://www.investopedia.com/terms/m/midstream.asp> retrieved on the 1st of February, 2026.

¹¹⁰ <https://www.pau.go.ug/projects>, retrieved on the 1st of February, 2026.

There is the downstream Stage. Uganda's downstream oil and gas sector centers on refining, storage, distribution, and marketing of petroleum products. UNOC is tasked with developing, managing, and operating storage terminals, as it maintains national strategic fuel reserves to guarantee security of supply. This responsibility is carried out through its fully owned subsidiary, the National Pipeline Company Limited¹¹¹.

Having looked at the three stages of oil and gas exploration in Uganda, we realise that the activities therein if not handled carefully can be hazardous to the environment and the climate at large.

Similarly the Constitution in addition to providing for ownership, it endows to the citizen the right to a clean and healthy environment.¹¹² This clearly indicates that in all oil and gas activities, the Oil companies must endeavour to work in a way that will not breach this right. There are several instances where the oil companies and the government have failed to protect and preserve this right thus leading to cases like *The Environmental Shield Ltd. & Another v. The Attorney General of Uganda & Another*, which was Filed to challenge the construction of the EACOP, due to fear of grave environmental, social, and economic injustice, to communities along the route, violating the Treaty for the Establishment of the East African Community. The East African Court of Justice (EACJ) stayed the implementation of the international trade agreement pending the final resolution of the reference.¹¹³

¹¹¹ <https://www.unoc.co.ug/downstream/> retrieved on the 1st of February, 2026.

¹¹² Article 39, the Constitution of the Republic of Uganda, 1995.

¹¹³ EACJ Ref No. 57 of 2022

In the case of *Juan Antonio Oposa and Others v. The Honourable Fulgencio Factoran and Another*¹¹⁴, the petitioners instituted a suit against the respondents seeking damages for activities, but most important the Petitioners sought to prevent the misappropriation or impairment of Philippine rainforests and requested that the court order the cancellation of all existing timber license agreements (TLAs) in the country and command the Department of Environment and Natural Resources (DENR) to cease and desist from processing or approving new ones.

The petitioners alleged the rapid and catastrophic deforestation of the Philippines. They noted that while the country once had 16 million hectares of rainforest (53% of its land mass) 25 years prior, satellite images from 1987 showed only 1.2 million hectares remained. At the rate of deforestation at the time 200,000 hectares per year it was predicted the country would be bereft of forest resources within a decade. The Petitioners also alleged that this environmental destruction resulted in: Water shortages and the drying up of rivers and aquifers, massive soil erosion and loss of agricultural productivity, extinction of unique flora and fauna and the dislocation of cultural communities, the greenhouse effect and catastrophic climatic changes. They argued that the continued granting of TLAs constituted a grave abuse of discretion and a violation of their constitutional right to a balanced and healthful ecology¹¹⁵

¹¹⁴ Supreme Court G.R.No.101083

¹¹⁵ Ibid

One of the issues before was whether the complaint stated a valid cause of action based on a specifically enforceable legal right to a balanced and healthful ecology?¹¹⁶

The Supreme Court the lower court order vide Civil Case No. 90 777 be set aside, the court further recognized that the right to a balanced and healthful ecology (Section 16, Article II of the Constitution) is a fundamental, self-executing right that predates even the Constitution itself. The petitioners were also granted leave to amend their complaint to implead as defendants the holders or grantees of the questioned timber license agreements. No orders made as to costs.¹¹⁷

This Court decision is relevant in a way that provides a broad interpretation of constitutional rights, its definition of state regulatory power, and its recognition of intergenerational responsibility in resource extraction towards the environment and climate.

For example, Justice Feliciano's concurring opinion explicitly noted that this generalized right encompasses several particular claims directly relevant to the impact of oil and gas activities on the environment and climate including: Pollution control, which includes the prevention and control of toxic fumes and smoke from factories and motor vehicles, as well as the discharge of oil, chemical effluents, garbage, and raw sewage into water bodies by vessels, oil rigs, factories, mines, and entire communities.

¹¹⁶ Ibid.

¹¹⁷ Ibid

This is relevant to Uganda too as it provides a framework for holding governments and industries accountable for ecological preservation.

The Constitution of the Republic of Uganda, 1995 also portrays its mandates that are relevant in the protection of Uganda's environment and climate from the negative impacts of oil and gas activities for example: establishment of a fundamental right, that is to say the right to a clean and healthy environment. This serves as the primary legal foundation for environmental protection, ensuring that ecological health is a constitutional priority rather than just a policy preference. Legal obligations for oil Companies, since this constitutional right, oil companies are legally mandated to conduct all activities in a manner that does not breach the right to a clean and healthy environment. This imposes a direct responsibility on the private sector to mitigate the negative impacts of extraction and transportation. Mechanism for Accountability, when the government or oil companies fail to uphold these environmental standards, the legal system provides a path for recourse.

2.2.3.2. The Petroleum (Exploration, Development and Production) Act Cap 161. Having looked at the constitution as the Supreme law and the source of all the other laws, the The Petroleum (Exploration, Development and Production) Act Cap 161 was enacted to give meaning and to detail the provisions of the constitution on the oil and gas activities for instance:

One of the core purposes of the legislation is to ensure public safety and the protection of public health and the environment during petroleum activities. This is provided for under the purpose of the Act, which states that it ensures public safety and the protection of public health and the environment in petroleum activities¹¹⁸.

The Act stipulates that all licensees and any persons carrying out functions under the Act must adhere to the environmental principles and measures set out in the National Environment Management Act and other relevant laws. In other words, a licensee and any other person exercising functions, duties, or powers under this Act in connection with petroleum activities must adhere to the environmental principles and guidelines prescribed by the National Environment Management Act and other relevant laws¹¹⁹.

Additionally, The National Environment Management Authority (NEMA), working with the Petroleum Authority, has the mandate to issue waste management licences and establish regulations for the production, transportation, storage, treatment, and disposal of petroleum waste¹²⁰. The Act also states any person contracted by the licensee under subsection (3) must not undertake those activities unless they have

¹¹⁸ Section 1, of The Petroleum (Exploration, Development and Production) Act Cap 161.

¹¹⁹ Section 3, Ibid.

¹²⁰ Section 3(8), Ibid.

a licence issued by NEMA¹²¹. And that any person who undertakes the management of production, transportation, storage, treatment, or disposal of waste generated from petroleum activities without a licence, or who does not comply with the terms and conditions specified in the licence issued under subsection (5), commits an offence and is liable upon conviction to a fine of up to one hundred thousand currency points, imprisonment of up to ten years, or both.¹²²

Before any new area is opened for petroleum activities, the Minister is required to ensure that an assessment of the potential environmental impact and pollution risks is carried out. This requirement is established by law. It also provides that the Minister may give directions concerning how the National Oil Company carries out its management responsibilities under this Act¹²³ and, the Minister has the authority to designate areas for petroleum activities.

In addition, before opening areas that have not previously been licensed for petroleum activities, the Minister must ensure an evaluation of preliminary geological, geophysical, and geochemical data is carried out.¹²⁴

Reconnaissance activities in gazetted wildlife habitats must be carried out in a way that considers wildlife breeding and migratory patterns. The Act states that the Minister must publicize all reconnaissance activities in the local languages through local media in the area covered by the permit, and must designate a local

¹²¹ Section 3 (3) & (4), Ibid.

¹²² Section 3 (7) Ibid.

¹²³ Section 46 Ibid.

¹²⁴ Section 47(1) & (2), Ibid.

contact office or person where the public can obtain information or lodge concerns¹²⁵.

A reconnaissance permit can cover a specific type of survey and may allow shallow drilling for data calibration. When reconnaissance permits are granted to two or more persons for the same area, the operations of one permit holder must not adversely affect the operations of another permit holder¹²⁶.

During the submission of the application for the licences, the Oil company has to submit the annual work plan, this plan should be able to set out the minimum requirements that the government requires them to issue the licences¹²⁷. For example, the plan should set out the methods, the technology that is going to be employed to execute the licence. It also requires the Oil Company to break down the item's costs, and the government will usually set up the cap to avoid cost overrun. Failure to approve the plan and budget, the oil company cannot undertake work, otherwise it would face, penalties¹²⁸.

An application for a petroleum production licence must include: an evaluation of the possible environmental impacts of the petroleum activities; the measures that will be implemented to protect the environment; and a requirement that the licensee conduct a comprehensive environmental impact assessment¹²⁹.

¹²⁵ Section 48 (2), Ibid.

¹²⁶ Section 50 (1) & (2), Ibid.

¹²⁷ S. 56, 69 of the Petroleum (Exploration, Development and Production) Act Cap 161.

¹²⁸ S. 5 Ibid

¹²⁹ Section 71 (2) & (3), Ibid.

Where the Oil company passes all the that is required of it, the minister then approves the grant of the licence applied for by the Oil company¹³⁰.

Licensees must take reasonable steps to control the flow and avoid the waste or release of petroleum or gas into the environment, to stop the escape of water, drilling fluid, or petroleum, and to prevent contamination of any water well, spring, stream, river, lake, or reservoir¹³¹.

The Act further sets out the course of action in the event of pollution, requiring the licensee to treat or disperse it in a manner that is environmentally acceptable¹³². Also, a licensee is responsible for pollution damage regardless of negligence or intent¹³³. And in case an activity is conducted without a licence, the party involved is also liable regardless of fault¹³⁴.

The Oil and Gas activities are also carried out in line with the licence. Flaring and gas venting being one of the negative impacts of Oil and gas activities are strictly restricted¹³⁵. The Licence also guides the oil company on the ways to prevent flaring and gas venting.

It states that the person holding license must not carry out flaring or venting of petroleum in quantities more than that needed for normal operational safety

¹³⁰ S. 58 , 75 Ibid.

¹³¹ Section 88, (2) (d) (e) (f) Ibid.

¹³² Ibid.

¹³³ Section 129, Ibid

¹³⁴ Section 130, Ibid.

¹³⁵Section 100, Ibid.

without the formal written consent of the Minister on the advice of the Authority¹³⁶.

The Act further provides that Licensees need Ministerial approval (advised by the Authority) to flare or vent petroleum beyond operational safety needs.

Facilities must be designed to minimize flaring/venting. The Act requires that all facilities be designed and built to prevent gas venting or flaring during normal operations.¹³⁷

Flaring or venting gas for safety reasons needs written approval from the Authority if it's: Required for safe petroleum operations, or when there's Need to comply with Ugandan laws. Under the Act, flaring or venting gas for normal operational safety under subsection (1) must have the Authority's written consent if:(a) it is needed for the safety of petroleum activities; or(b) it is required to comply with any law in Uganda¹³⁸.

The Act allows a licensee to flare or vent gas without prior approval from the Authority during an emergency. This is provided under the Act which is to the effect that in an emergency situation, the licensee may conduct gas venting or flaring without the Authority's consent as required under subsection (3).¹³⁹

Approval is required for safety or legal compliance, unless in an emergency, then, Keep flaring/venting minimal, Report details to the Authority. The Act provides that if a licensee carries out gas venting or flaring under subsection (4), the licensee

¹³⁶ Section 100(1) Ibid.

¹³⁷ Section 100 (2) Ibid.

¹³⁸ Section 100 (3) Ibid.

¹³⁹ Section 100 ((4) Ibid.

must: (a) keep the gas venting or flaring to the minimum level possible; and (b) provide the Authority with a technical report explaining the nature and circumstances of the emergency that led to it.¹⁴⁰

Failure to comply may result in a fine not exceeding 500,000 currency points. The law provides that any person who breaches subsection (5) commits an offence and, if convicted, is liable to a fine of up to five hundred thousand currency points.¹⁴¹

Finally, Prior to the expiry of a licence or the termination of a facility, the licensee is required to submit a plan containing proposals for ceasing production and decommissioning the facilities.¹⁴² When activities cease, the licensee is required to provide for the preservation and safeguarding of natural resources in the area.¹⁴³ Then, in accordance with the National Environment Management Act, the licensee is specifically obligated to return the land to a state that is, as far as practicable, its original condition¹⁴⁴.

This implies that Uganda's legal framework Specifically the Petroleum (Exploration, Development and Production) Act Cap 161, aims to balance oil and gas development with environmental concerns, specifically reducing greenhouse gas emissions and air pollution from flaring and venting.

¹⁴⁰ Section 100 (5), Ibid.

¹⁴¹ Section 100 (6), Ibid.

¹⁴² Section 111 & 112, Ibid.

¹⁴³ Section 116 (1) (a), (b) & (c), Ibid.

¹⁴⁴ Section 139 (2), (3), & (4), Ibid.

2.2.3.3. The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162.

In addition to the Petroleum (exploration, development and production) Act Cap 161, This Act too emphasizes on the need for safeguard of health and safety of persons or to property during the mid stream activities for example transportation, refining which may be harmful to the environment. This is stipulated under the Act¹⁴⁵.

The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 was enacted to control all the activities at Midstream stage. Below are some of the legal provisions it holds in favour of the Environment and climate in Uganda:

One of the core purposes of the Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 under Section 1 (g) is to ensure public safety and the protection of public health and the environment. This is provided for under the Act. It is aimed at guaranteeing public safety and protecting both public health and the environment as they pertain to midstream operations.¹⁴⁶.

The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 under S.3 mandates that licensees and officials comply with environmental principles prescribed by the National Environment Act. It specifically requires: Waste management (transportation, storage, treatment, or disposal) must follow environmental safeguards, Licensees must contract separate entities for waste management, though they remain responsible for those entities' operations and

NEMA, in consultation with the Petroleum Authority, grants licenses for midstream waste management and is tasked with making relevant regulations¹⁴⁷.

¹⁴⁵ Section 26, The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162.

¹⁴⁶ Section 1 (g) the Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162.

¹⁴⁷ Section 3, Ibid.

Again, the Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 requires license applications to include: Plans to comply with all environmental legislation, Results and reports of environmental impact assessments, studies, or audits.¹⁴⁸ It also allows the public to lodge objections to license applications on environmental grounds¹⁴⁹.

The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 also obligates licensees to take reasonable steps to: Prevent the waste, emission, or discharge of petroleum into the environment. Prevent the pollution of water wells, springs, streams, rivers, or lakes. Treat or discharge pollutants in an environmentally acceptable manner if pollution occurs¹⁵⁰.

Cessation and Decommissioning. Just like the Petroleum (exploration, development and production) Act Cap 161, The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 also directs that the disposal of decommissioned facilities must consider environmental aspects¹⁵¹. Requires former licensees to make provisions for the preservation and safeguarding of the environment upon the surrender or expiry of a license¹⁵².

It goes ahead to talk about pollution. It defines the scope of liability for pollution damage occurring in Uganda¹⁵³, (strict liability), though liability may be mitigated in

¹⁴⁸ Section 10, Ibid.

¹⁴⁹ Section 12(2)(d), Ibid.

¹⁵⁰ Section 26(2), Ibid.

¹⁵¹ Section 46(2), Ibid.

¹⁵² Section 47(1)(c), Ibid.

¹⁵³ Section 57, Ibid.

cases of inevitable natural events or force majeure¹⁵⁴, it extends liability for pollution damage to parties conducting operations without a license¹⁵⁵, Detail the procedures for claiming damages, recourse for pollution damage, and the jurisdiction for legal actions¹⁵⁶.

Safety and Emergency Preparedness. This Requires operators to take precautions to protect the environment and prevent pollution¹⁵⁷, it Mandates the establishment of emergency readiness measures to handle accidents with potential to result in pollution and requires measures to return the environment to its original condition after an emergency¹⁵⁸, allows for a commission of inquiry into incidents that lead to pollution of the environment¹⁵⁹.

Finally, the Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162 has Regulatory Powers to that is to say, it grants the Minister power to make regulations regarding the protection and efficient use of natural resources, and the prevention, management, and responsibility for pollution.¹⁶⁰

Therefore, this Law is of great importance as it outlines the specific legal mechanisms and safeguards established to mitigate the environmental hazards inherent in Uganda's petroleum industry, Because activities such as refining, storage,

¹⁵⁴ Section 58, Ibid.

¹⁵⁵ Section 59, Ibid.

¹⁵⁶ Sections 60–62, Ibid.

¹⁵⁷ Section 64(a)(ii), Ibid.

¹⁵⁸ Section 65 & 66, Ibid.

¹⁵⁹ Section 71(3), Ibid.

¹⁶⁰ Section 95(2), (e) & (i), Ibid.

and transportation are identified as potentially hazardous to the environment. serves as a critical regulatory tool for conservation of the environment and climate.

2.2.3.4. The National Environment Act (NEA Act) Cap 181.

A clean environment is a right guaranteed by the constitution, therefore all the oil and gas laws strive hard to carry on their activities without endangering the environment. Section 3 of the NEA resounds this and is to the extent that all persons in Uganda have a right to a clean and healthy environment as set out in the Constitution and in accordance with sustainable development principles.

This law goes ahead to place the responsibility of taking care of the environment on each and every person/citizen of Uganda¹⁶¹. Ugandan citizens have a right to a clean and healthy environment, along with a responsibility to protect it. If this right is threatened or pollution occurs, anyone can file a civil suit to: Stop harmful activities, require environmental assessments or audits, Compel government action, Seek restoration or compensation for damage¹⁶².

Notably, personal harm isn't required to take action. The court can order various measures to preserve human health and environmental integrity.

Additionally, The Act spearheads the fight for a clean and healthy environment in that it establishes the Environmental principles for example: making provision for the fair, gender-inclusive, and sustainable management of the environment and natural resources, including cultural and natural heritage, to benefit people now and in the future.

¹⁶¹ S.3 of the National Environmental Act Cap 181.

¹⁶² Ibid

The Act further provides for keeping the living and non-living elements of the environment in stable, functional balance by conserving biological diversity and using prudent environmental management practices, and for guaranteeing optimum sustainable yield in the exploitation of renewable natural resources; and others as provided for under the Act¹⁶³.

This Act makes mention of the Prohibition of pollution from all forms of risks that can cause pollution, minimise the flaring and gas venting. This Act goes ahead to prescribe punishment for the offenders¹⁶⁴

Wastes from oil and gas activities ought to be managed by the oil company to safeguard the environment. The fact remains that it is incumbent upon the generator of the wastes to manage. This is done by following waste management hierarchy and measures prescribed by regulations¹⁶⁵.

Noxious smells that affect the environment by polluting the environment is also provided for in this Act. so in order to protect the environment, the Authority in conjunction with the relevant agency provides the measurements plus determination, minimum standards, guidelines¹⁶⁶.

¹⁶³ S.5 Ibid

¹⁶⁴ S. 79 - 94 Ibid

¹⁶⁵ S. 96 Ibid

¹⁶⁶ S.104 Ibid

Then Decommissioning, this involves cleaning up. This refers to taking out equipment and structures used for oil and gas activities and restoring the physical environment at the site to its pre-operational condition.¹⁶⁷

Decommissioning is done on both onshore and offshore. When it is Offshore, International laws are involved on how decommissioning can be done. States use decommissioning provisions to shift liability of costs to International Companies¹⁶⁸.

In Uganda Decommissioning is provided for under the Petroleum (exploration, development and production) Act Cap 161. Where this is provided for, before a licence is granted to an oil company, it must submit its decommissioning plan to the Authority. The Decommissioning plan must contain information of evaluation and how the decommissioning is done. Decommissioning is aimed at preserving and conserving the environment.¹⁶⁹

Responsibility for waste, any person involved in petroleum activities or midstream operations is legally tasked with managing petroleum waste properly in line with relevant legal requirements. This is provided under the act, and it states that A person engaged in petroleum activities under the Petroleum (Exploration, Development and Production) Act, 2013 or midstream operations under the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act, 2013

¹⁶⁷ Apache UK Investment Ltd v Esso Exploration and Production UK Ltd [2021] EWHC 1283 (Comm)

¹⁶⁸ The 1958 Continental Shelf Convention Art 5(5); The International Maritime Organisation guidelines, Art 3.

¹⁶⁹ S. 112, Petroleum (Exploration, Development and Production) Act Cap 161.

shall be responsible for the proper management of petroleum waste in accordance with the applicable law¹⁷⁰.

The Act also prohibits littering. It stipulates that littering is not allowed. Owners or occupiers of any residential or business property remain accountable for waste produced there until it is picked up by an authorized collector.¹⁷¹

The National Environmental Act Cap 181 is very key in combating the impacts of oil and gas on the environment and climate by establishing a strict framework for accountability, pollution control, and environmental restoration.

¹⁷⁰ S. 96(3), The National Environment Act (NEA Act) Cap 181 .

¹⁷¹ Section 97(1) & (2), Ibid.

2.2.3.5. The National Environment (environmental and social assessment) regulations, 2020

provides for the Environment Impact Assessment. Environmental Impact Assessment (EIA) is the most important preventive mechanism for ensuring sustainable petroleum development in Uganda.

Environmental Impact Assessment is a process designed to guarantee that potential environmental impacts are evaluated by decision-makers before decisions are made regarding projects expected to have significant effects on the environment.¹⁷²

The purpose of the ESIA is to evaluate environmental and social impacts, risks or other concerns of a given project or activity, taking into account the environmental principles set out in section 5(2). It provides a structured process to identify, predict, and assess the likely environmental and social consequences of planned projects in advance of execution, and proposes appropriate mitigation measures.

The legal basis for EIA in Uganda is found in **Part V (sections 19 to 23)** of the National Environment Act, Cap. 181, and is operationalised by the National Environment (Environmental and Social Assessment) Regulations, 2020.

¹⁷² <https://uganda.wcs.org/initiatives/oil-development.aspx#> retrieved on the 1st of February, 2026.

Together, these laws make it mandatory for developers of high-impact projects such as petroleum exploration, drilling, and pipeline construction to conduct an EIA and secure authorisation from the National Environment Management Authority (NEMA) in advance of beginning any work.

This statutory regime gives effect to **Article 39 of the Constitution of Uganda, 1995**, which affirms every person's right to a clean and healthy environment, and to Article 245, which directs Parliament to protect natural resources from degradation.

Legal Requirements for Conducting EIAs include; Petroleum exploration and production; Construction of oil refineries, storage, and pipelines; Industrial and energy projects, and Infrastructure within fragile ecosystems such as wetlands, lakeshores, and national parks.¹⁷³ Upon receiving the project brief, the lead agency after consulting NEMA determines the level of assessment required: Environmental Impact Review for minor impacts; Environmental Impact Evaluation for moderate impacts, or Environmental Impact Study for projects with significant adverse effects (typical for oil and gas projects).

A developer may not proceed with the project unless the Authority approves the study and issues a formal Environmental Impact Statement (EIS)¹⁷⁴ Failure to undertake an EIA when required constitutes an offence under Part XIII of the Act.

¹⁷³ Section 19(1) of the National Environment Act and Third Schedule .

¹⁷⁴ Regulation 20- 22

The Regulations of 2020 (particularly Regulations 6-25) expand these statutory duties, spelling out the procedures, time frames, and content requirements for each stage of the process.

Briefly, Steps Taken when Carrying out the EIA Process are:

Step 1 Screening and the Project Brief: The process begins with the developer preparing a project brief describing; the nature, size and location of the activity; the expected impacts; and Preliminary mitigation measures.

NEMA and the lead agency review the brief within 21 days to decide whether a full EIA is required. Because petroleum projects are high-risk and expressly listed in the Third Schedule, they almost always proceed to a full Environmental and Social Impact Study¹⁷⁵.

Step 2 Scoping and Terms of Reference: Scoping defines the key issues that should be examined, prepares and develops the Terms of Reference (ToR) for the impact study.

The TOR identifies significant environmental, social, and cultural concerns such as biodiversity loss, displacement, water contamination, and oil-spill risk and outlines

¹⁷⁵ Regs 6–8

alternative project options. The ToR must be approved by NEMA before fieldwork begins¹⁷⁶.

Step 3 Baseline Data Collection: The environmental practitioner gathers information on the existing environmental and social conditions of the project area. Typical baseline components include Topography and soil characteristics, Hydrology and water quality, Flora, fauna, and sensitive habitats, Land tenure and the use of land, Demographics, health, and livelihoods of local communities. This baseline forms the benchmark for assessing future changes¹⁷⁷.

Step 4 Impact Assessment and Mitigation: The study evaluates all potential impacts direct, indirect, and cumulative and proposes measures to avoid, reduce, or compensate for them. The developers must also consider alternatives, including the “no-project” scenario; Typical mitigation measures in petroleum projects include; Spill-prevention systems and emergency response plans; Wastewater and drilling mud treatment; Reforestation and habitat restoration; Compensation and resettlement for affected persons¹⁷⁸.

Step 5 Preparation and Submission of the Environmental Impact: involves compiling the findings of the EIA study into a comprehensive report and submitting it to the National Environment Management Authority (NEMA) for review¹⁷⁹

¹⁷⁶ Regulation 13

¹⁷⁷ section 19 ; Reg 11

¹⁷⁸ Regulation 9 : Regulation 13.

¹⁷⁹ Regulation 18.

Operation Oil Companies without environmental impact assessment without proper or comprehensive Environmental Impact Assessments (EIAs) presents severe risks to the ecologically sensitive Albertine region, potentially causing irreversible damage to biodiversity, water sources, and the environment and climate at large. The absence of thorough environmental safeguards could accelerate climate change and lead to the degradation of protected areas. The oil Companies are meant to oblige to the environmental principles, failure of which may lead to penalty or termination of their cancellation of certificate of approval of environmental and social impact assessment which can lead to the cancellation of the licence¹⁸⁰.

¹⁸⁰ S. 122 - 140 , National Environmental Act Cap 181.

2.2.3.6. National Climate Change Act Cap 182

This National Climate Change Act Cap 182 provides a framework Uganda's national response to climate change. The Act is intended to domesticate the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement, making them legally binding in Uganda. Among its purposes is to The Act also tackles climate change and its impacts, ensuring Uganda meets its obligations under international agreements.¹⁸¹.

Oil and gas activities in Uganda contribute to climate change through direct greenhouse gas, emissions, extensive deforestation, destruction of carbon-sequestering ecosystems, and the displacement of communities dependent on sustainable livelihoods.

The National Climate Change Act Cap 182, seeks to address oil and gas impacts in the following ways:

Through Mandatory Emission Measurement and Reporting. The Act requires that GHG emissions (including Carbon Dioxide and Methane from oil activities) be examined or determined in tonnes of carbon dioxide equivalent ¹⁸². This Act also

¹⁸¹ Section 4, National Climatic Change Act Cap 182.

¹⁸² Section 10(1) of the National Climatic Change Act Cap 182.

mandates that emissions and removals of targeted greenhouse gases be assessed biennially in line with international standards, ensuring that emissions from oil exploration and production are tracked¹⁸³. Lead agencies, such as the Petroleum Authority of Uganda (PAU), are obligated to develop baselines for emissions in their respective sectors¹⁸⁴.

Regulatory Compliance and Mitigation. Under this Act, lead agencies must develop reduction, coping and fitting standards to manage climate change matters within their mandate. It provides that for this Act's purposes, lead agencies shall establish mitigation, adaptation, and compatibility standards, measures, and performance levels to respond to climate change matters pertaining to their respective mandates¹⁸⁵.

The Act provides for climate change mechanism projects, requiring oil and gas operators (project proponents) to seek approval from the Minister for any activities designed to reduce emissions¹⁸⁶.

The 2025 Carbon Market Regulations (under the Act) further regulate these projects, allowing for carbon credits only after verification of emission reductions¹⁸⁷. It sets up a national framework to supervise carbon market activities.

It lays out: The procedures for obtaining government permission for emissions reductions, requirements for monitoring and verification, the setup of a national

¹⁸³ Section 10(2), & 27 Ibid.

¹⁸⁴ Section 10(5), Ibid.

¹⁸⁵ Section 17, Ibid.

¹⁸⁶ Section 9, Ibid.

¹⁸⁷<https://climateinvestmentpartners.com/uganda-carbon-market-2025/> retrieved on the 1st of February.

carbon registry, and the terms governing the international transfer of carbon credits¹⁸⁸.

Decommissioning and Restoration. The Act works alongside the Petroleum (Exploration, Development and Production) Act, 2013, which mandates the restoration of derelict lands and the safe management of oil and gas activities¹⁸⁹. It emphasizes the reduction of vulnerability and enhancement of sinks, which limits the environmental impact of infrastructure development related to oil extraction¹⁹⁰.

Legal Responsibility and Oversight. The Act establishes a National Climate Change Advisory Committee, which includes experts from the energy and minerals sector to advise on low-carbon technology and best practices for reducing emissions in oil operations¹⁹¹.

The National Climate Change Act Cap 182 allows citizens to bring actions before the High Court against any entity including private oil companies whose actions or omissions threaten mitigation efforts¹⁹².

Failure to comply with emission reporting or monitoring obligations under the Act can result in fines for entities¹⁹³.

¹⁸⁸ Ibid.

¹⁸⁹ Section 16(1) (a), (b), (c), (2),(3) & (4)Ibid.

¹⁹⁰ Section 6, 9, 17,18, 19,20, 21 Ibid.

¹⁹¹ Section 16 Ibid.

¹⁹² Section 26 Ibid.

¹⁹³ Section 31 Ibid.

Integration with National Strategy. The Act requires that all national budgets, including those for infrastructure development in the oil sector, contain adequate funding for climate change measures, evidenced by a certificate of compliance¹⁹⁴.

The National Climate Change Act Cap 182 supports the long-term goal of low greenhouse gas emissions, pushing the oil sector to adopt cleaner production methods¹⁹⁵.

The National Climate Change Act Cap 182 is highly relevant because it establishes a comprehensive legal and regulatory framework specifically designed to reduce the environmental and climate impacts of Uganda's oil and gas sector. And is aligned with International Goals

¹⁹⁴ Section 29

¹⁹⁵ Section 3, 9, 20, 21 Ibid.

2.2.3.7. The Petroleum (Waste Management) Regulations 2019.

The Petroleum (Waste Management) Regulations, 2019 came into place to ensure that there is proper management of wastes from oil and gas activities in Uganda in order to protect the environment from the harm from the oil and gas wastes. In other words, it came into force to give meaning to S.3(8) of the Petroleum (Exploration, Development and Production) Act Cap 161 and The Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162¹⁹⁶. This Regulation place the responsibility of compliance with environmental principle on the persons managing the petroleum wastes¹⁹⁷.

Additionally, this law mandates the petroleum waste handler to carry on its duty in line with the National Environmental Act, Regulations and other related laws by ensuring that leakages or spills are quickly detected and taken care of as soon as possible¹⁹⁸.

¹⁹⁶ Long title - The Petroleum (Waste Management) Regulation, No. 3 of 2019.

¹⁹⁷ Regulation 2 and 4 of The Petroleum (Waste Management) Regulation, No. 3 of 2019.

¹⁹⁸ Regulation 6 Ibid

2.2.3.8. Production Sharing Agreements (PSA)

Importantly, among the things that the government discusses with the oil companies during the contract negotiations are the Production Sharing Agreements (PSA), where the contracting parties agree on the ownership of the Oil and Gas, how it will be shared and other terms for example Article 3 of the Uganda's PSA provides for the responsibilities and grant of rights of the Parties, Article 8 provides for bonuses, Article 12 production sharing and most importantly Article 23 of the PSA is the dangers of the Oil and Gas activities to persons and property of the environment. The PSA is to the effect that the Licensee ought to conduct all Petroleum Activities in line with the Environmental laws, other applicable laws so that the negative impacts of oil and gas on the environment can be prevented¹⁹⁹. So, in all these negotiations the main goal is to achieve effective oil and gas activities that will not harm the environment but to protect it from any harm.

¹⁹⁹ Article 23.1 , Production Sharing Agreement For [Petroleum Exploration, Development And Production] Or [Petroleum Development And Production.

2.2.4. REGULATORY BODIES AND THEIR ROLES

2.2.3.4.1 The Ministry of Energy and Mineral Development and the Directorate of Petroleum.

Under the National Oil and Gas Policy 2008, the oil and gas sector is placed under the Ministry of Energy & Mineral Development. In order to strengthen the ministry's capacity to efficiently handle the expanding responsibilities policy making, monitoring, and evaluation for the sector. The responsibility was assigned to the Directorate of Petroleum within the Ministry.

The Directorate of Petroleum (DoP) ensures sustainable utilization of Uganda's natural resources by enforcing environmental regulations, implementing biodiversity management plans, managing waste and air quality, and conducting EIAs for oil, gas, and mineral projects. They facilitate compliance with health, safety, and environmental standards, promoting cleaner energy alternatives²⁰⁰.

Through three separate departments responsible for the petroleum production stages, the Directorate coordinates the development of the oil and gas sector in the country.²⁰¹

²⁰⁰<https://www.unoc.co.ug/gas-from-oil-projects-to-protect-environment-boost-health/> accessed on the 30th of January, 2026.

²⁰¹ www.petroleum.go.ug accessed on the 30th of January, 2026.

One of the very important responsibilities of the Ministry through the Directorate is licensing. This is relevant because whatever decision the Ministry takes to grant or deny the Oil companies the licences to operate impacts the Environment²⁰².

To ensure oil and gas activities exist in harmony with the environment, the Directorate of Petroleum has put frameworks in place and is implementing them.

They include:

Environmental and Social Impact Assessments (ESIAs), conducted in consultation with the Government via the National Environment Management Authority (NEMA) and local communities. This guarantees that any potential impacts, both positive and negative, are taken into account and mitigation measures are implemented²⁰³;

Continuous monitoring of the activities is done by a multi-institutional monitoring team made up of NEMA, PEPD, Uganda Wildlife Authority (UWA), National Forestry Authority (NFA), Directorate of Water Resources Management (DWRM), and Directorate of Fisheries Resources (DFR), together with the respective District Environment Officers²⁰⁴;

²⁰² Supra

²⁰³ Ministry of Energy and Mineral Development: The Oil And Gas Sector In Uganda: Frequently Asked Questions, 2019, page 21.

²⁰⁴ Ibid.

Additional frameworks developed to date include an Environmental Sensitivity Atlas for the AG, an Environment Monitoring Plan, and an Enforcement Strategy along with rules for Waste Management and Operations in protected areas.

A Strategic Environment Assessment for oil and gas activities has also been formulated in order to make sure that environmental issues are integrated into all Government Programmes, Plans and Policies²⁰⁵.

2.2.3.4.2 Ministry Responsible for Water and Environment.

This entity is responsible for monitoring compliance of oil and gas activities with policy requirements on the protection and utilization of water bodies and aquifers. Manage possible toxin impacts from oil and gas operations and infrastructure development, such as laboratories to manage toxins.

Then, it participates in formulating and monitoring environmental protection policies, which oil and gas activities must follow. Monitors how oil and gas activities affect the ground and surface water quality, nearby vegetation, and the atmosphere. It regulates consumption plus contamination entering water bodies via water permits. And many other responsibilities as provided for by the laws²⁰⁶.

2.2.3.4.3 Ministry Responsible for Forests and Wetlands.

²⁰⁵ Ibid.

²⁰⁶ <https://www.greenclimate.fund/ae/mwe-uga>

It ensures that policies governing oil and gas are compatible with those for the development and use of forest resources. It also Ensures oil and gas activities take place in a way that conserves and improves forest reserves and wetlands²⁰⁷.

2.2.3.4.4 The National Environment Management Authority (NEMA)

This entity is charged with the mandate of coordinating environmental impact assessments processes relating to oil and gas activities, environmental monitoring, and audits of those activities, ensures plus monitors adherence of oil and gas activities to environmental guidelines. It also issues guidelines for strategic environmental assessment.

This clearly indicates that the NEMA has actively managed environmental risks in the oil and gas sector in Uganda since it is responsible for issuing Environmental and Social Impact Assessment (ESIA) certificates, monitoring compliance and establishing oil spill contingency plans.²⁰⁸.

2.2.3.4.5 The Uganda Wildlife Authority (UWA)

Oil and gas in Uganda has been discovered close to the national park for example Tileng in Murchison Falls national park and Kabwoya Wildlife Reserve, this prompts the examination of its impact on the wildlife which are part of the environment.

²⁰⁷ Ibid

²⁰⁸ www.nema.go.ug and <https://ucem.ug/oil-and-gas-to-play-a-significant-role-in-the-energy-transition-of-uganda-nema/#>: reaccessed on the 30th of January, 2026.

The Uganda Wildlife Act Cap315 was enacted to protect the wildlife. In relation to oil and gas, the Act states that an Environmental Impact Assessment (EIA) to be carried out in line with the National Environment Act before any area is declared, or before development occurs in a declared area²⁰⁹.

Relatedly, S.26 of the Wildlife Act Cap315 defines national parks and wildlife reserves, noting that in wildlife reserves, regulated extractive utilization of natural resources like oil and gas is allowed, provided an Environmental Impact Assessment (EIA) has been conducted.

Additionally, Prohibition of prospecting for minerals or mining (which includes oil activities) without lawful authority. This section makes it an offence to damage or deface any part of the conservation area²¹⁰.

Use of wildlife resources. The Act ensures that any extraction of resources within a protected area does not exceed sustainable yield levels²¹¹.

Under the Act, the Minister clothed with power to make regulations concerning the control of waste, the use of vehicles/aircraft, and the control of commercial enterprises in wildlife areas²¹².

And, Prohibition of utilisation of wildlife without a wildlife use right. The Act explicitly states that no person shall engage in activities that involve the utilization

²⁰⁹ Section 23 of the Uganda Wildlife Act Cap 315.

²¹⁰ Section 29, Ibid.

²¹¹ Section 31, Ibid.

²¹² Section 33, Ibid.

of wildlife or wildlife products without a permit (or wildlife use right) from the Uganda Wildlife Authority (UWA)²¹³.

The regulatory body, its enforcement body is known as the Uganda Wildlife Authority (UWA) plays a crucial, supervisory role in managing the impact of oil and gas activities. It ensures compliance by monitoring impacts such as habitat destruction and behavioral changes in wildlife, noting that animals may move up to 1,000 meters away from drilling sites. They work with developers to implement measures like using "silent" rigs, "warmer" lighting to reduce light pollution, and cableless seismic data acquisition to minimize footprints²¹⁴.

It is also charged with Regulatory Compliance and Planning, UWA works with NEMA to create sensitivity atlases for protected areas, ensuring that Environmental and Social Impact Assessments (ESIAs) are followed²¹⁵.

The UWA collaborates with firms like TotalEnergies on biodiversity initiatives within Murchison Falls National Park. They also increase ranger patrols to combat poaching, which has been exacerbated by increased human presence in, or near, protected areas²¹⁶.

²¹³ Section 36, Ibid.

²¹⁴ <https://ucem.ug/oil-and-gas-to-play-a-significant-role-in-the-energy-transition-of-uganda>
<https://uganda.wcs.org/initiatives/oil-development.aspx#> retrieved on the 1st of February, 2026.

²¹⁵ Ibid.

²¹⁶ Ibid.

And

Then, UWA manages the balance between development and conservation by utilizing wildlife-friendly equipment, controlling noise, and, in some cases, considering wildlife translocation to maintain ecosystem balance²¹⁷.

2.2.3.4.6 The National Forest Authority

2.2.3.4.7 The National Climate Change Unit.

This Unit in together with the ministry of water and environment plays a critical regulatory and advisory role in the oil and gas industry, primarily focused on ensuring sustainable exploitation, mitigating greenhouse gas emissions, and compliance with the National Climate Change Act Cap 182²¹⁸

6 . 7.3 of the National Oil and Gas Policy for Uganda provides for the regulatory role of civil and cultural institutions.

2.2.3.5. THE ROLE OF CIVIL SOCIETY AND CULTURAL INSTITUTIONS

The policy acknowledges the contribution of Local Governments, Civil Society Organisations (CSOs) plus Cultural Institutions in advocacy, mobilisation and dialogue with communities.

²¹⁷ <https://uganda.wcs.org/initiatives/oil-development.aspx#> retrieved on the 1st of February, 2026.

²¹⁸ Section 3 of the National Climate Change Act Cap 182

These institutions are set to assist in making sure various actors are held accountable on oil and gas matters and the voices of the poor incorporated into design, oversight and enforcement of programmes in the oil and gas sector.

CSOs might also be engaged to deliver more services, particularly in the communities.

3.2.2. REGIONAL LAWS AND BODIES:

3.2.2. 1. The Treaty for the Establishment of the East Africa Community as of 2006.

This Treaty Makes mention of energy and the protection and prevention from environment Issues and Natural Resources through adopting policies and measure, along with all other criteria necessary to provide pocket friendly energy bearing in mind preservation and conservation of the environment²¹⁹.

It goes ahead to state that operations might adversely affect the environment, causing environmental degradation and natural resource depletion, that a clean and healthy environment is a precondition for sustainable development²²⁰.

²¹⁹ Article 101(2) (f) The Treaty for the Establishment of the East Africa Community as of 2006

²²⁰ Article 111, Ibid.

This treaty portrays the partner states' commitment to collaborate on the control of the Environment in commitment to Article 111 of the Treaty²²¹. This is inline with the provisions of Uganda's oil and gas laws, especially the National Environment Act Cap 181.

The treaty also prevents unlawful transactions plus transportation of Toxic Chemicals, Substances and Hazardous Wastes in that Partner States pledge to collaborate and establish a unified ground opposing unlawful disposal of toxic chemicals, substances and hazardous wastes within the Community whether originating from a Partner State or any third party. They shall align their legal and regulatory frameworks governing the management, movement, utilisation and disposal of toxic substances and ratify environmental international conventions aimed at strengthening environmental policies and management²²². This is consistent with the Oil and Gas laws, Particularly the Petroleum (Waste Management) Regulation, No. 3 of 2019 of Uganda.

3.2.2. 2. Treaty Establishing the Common Market for Eastern and Southern Africa (COMESA)

Chapter Sixteen Provides for Co-operation in the Development of Natural Resources, Environment and Wildlife.

²²¹ Article 112, Ibid.

²²² Article 113 , Ibid.

The treaty provides for collaboration in control of Natural Resources. The Member States consent to adopt coordinated modes to encourage good relationship in collective with efficient control and sustainable exploitation of natural resources within the Common Market for the mutual benefit of the Member States²²³

Co-operation in the Management of the Environment. The treaty further states that the Member States pledge to work jointly in the environmental management²²⁴.

Then, this treaty also prohibits unlawful International Transactions relating to Toxic and Hazardous Wastes²²⁵.

3.2.2. 3. Constitutive Act of the African Union

This Law provides for establishment of a specialized technical committee and defines their composition, that is to say; 14. The established specialized Technical Committees, are to be accountable to the executive council, including among others: The Committee on Industry, Science and Technology, Energy, Natural Resources and Environment²²⁶.

²²³ Article 123 of Treaty Establishing the Common Market For Eastern And Southern Africa (COMESA).

²²⁴ Article 124, Ibid.

²²⁵ ARTICLE 125, Ibid.

²²⁶ Article 14 of the Constitutive Act of the African Union.

Uganda ratified the above treaties and is an active member of the above respective bodies. This clearly shows that even regionable bodies have a great concern for the environment and Climate.

3.2.3. INTERNATIONAL LAWS

3.2.3. 1. United Nations Framework Convention on Climate Change (UNFCCC), 1992

This law aimed at stabilizing the concentration of greenhouse gases in the atmosphere at a level that prevents dangerous human-caused disruptions with the climate system²²⁷.

Since the production of Oil and gas contributes heavily to greenhouse gas (GHG) emissions. The Convention provides a global legal framework for reducing emissions and promoting cleaner production²²⁸.

3.2.3.2. Kyoto Protocol (1997)

²²⁷ Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC), 1992

²²⁸Ibid, Article 4.

This one implement binding commitments for industrialized countries to reduce GHG emissions.

It introduces modes like the Clean Development Mechanism (CDM), which encourages cleaner production and carbon capture in oil and gas projects. Also, Promotes investment in energy efficiency and renewable alternatives.

3.2.3.3. Paris Agreement (2015)

The Objective of this agreement is to Strengthen the global response to climate change under the UNFCCC framework.

Some of the key Articles in the Paris Agreement are:

Article 4: Parties must prepare and communicate nationally determined contributions (NDCs), often including measures for reducing oil and gas sector emissions.

Article 6: Allows cooperative approaches and carbon markets that can incentivize greener oil and gas production.

Article 7: Focuses on adaptation, including minimizing environmental damage from fossil fuel extraction and refining.

3.2.3.4. Convention on Biological Diversity (CBD), 1992

This came in to protect biological diversity, ensure sustainable use of its components, and promote equitable distribution of benefits from genetic resources.

It makes it clear that Oil and gas exploration often affects ecosystems and biodiversity.

Article 8 of this convention is to the effect that states must establish protected areas and prevent activities like uncontrolled oil drilling that endanger biodiversity. This treaty also mandates environmental impact assessments (EIAs) for projects that may pose major adverse impacts on biodiversity²²⁹.

3.2.3.5. Convention on the Law of the Sea (UNCLOS), 1982

This one regulates the use of the world's seas and oceans and protects the marine environment. This convention is important in a way that it governs Offshore oil and gas operations directly.

States must oblige to adopt required relevant steps to avoid, mitigate, and manage marine pollution stemming from sources like oil drilling. This includes adopting laws for seabed activities under their jurisdiction and being responsible for pollution damage to the marine environment²³⁰.

3.2.3.6. International Convention for the Prevention of Pollution from Ships (MARPOL), 1973/78

²²⁹ Article 14, Convention on Biological Diversity (CBD), 1992.

²³⁰ Articles 194, 208 and 235 of the Convention on the Law of the Sea (UNCLOS), 1982.

This Convention serves to Prevent marine pollution arising from both operational or accidental sources and/or events.

As stated under **Annex I**, this Convention regulates oil pollution from ships, tankers, and offshore facilities.

Establishes procedures for oil discharge monitoring, control equipment, and spill prevention.

3.2.3.7. Stockholm Declaration (1972) & Rio Declaration (1992)

These are non-binding but foundational international laws for modern environmental law. While the Rio Declaration affirms States' sovereign right to utilise their resources, yet they're also responsible for ensuring activities don't harm the environment beyond their borders. The declaration introduces the precautionary principle, crucial for managing oil and gas risks. Uganda's National Environmental Act (Cap 181) incorporates these principles, mandating environmental impact assessments (EIAs) for activities with potential significant environmental impacts²³¹.

3.2.3.8. Basel Convention (1989) Control of Transboundary Movements of Hazardous Wastes

The Convention Covers waste from oil refining, drilling muds, and contaminated sludges by ensuring safe transport and disposal.

²³¹ Principles 2, 15 and 17 of the Rio Declaration (1992)

It is important to note that **Article 4**, mandates the reduction of waste generation and ensuring environmentally sound control/oversight of hazardous wastes.

3.2.3.9. Aarhus Convention (1998)

Its goal is to ensure that there is Access to Information and Justice. This is important in that it promotes transparency and participation of the public in environmental decision-making related to oil and gas projects. Uganda is not a contracting party to this convention, but it has most of its force in the domestically enacted laws that help in the protecting, conserving and preserving of the Environment and Climate. This Law covers Access to environmental information, demands the involvement of the public in decision-making for activities like oil extraction, and ensures justice is accessible for environmental issues²³².

3.2.3.10. International Convention on Oil and Gas Preparedness Response and Cooperation (OPRC, 1996), it establishes measures for oil spills preparedness and response. It provides that oil must have emergency response plans and cooperation among states and companies for spill management.

3.2.3.11. African Charter on Human and People's Rights 1981

²³² Articles 4, 6, and 9

Under **Article 24 of the charter**, the right to a satisfactory environment is guaranteed.

3.2.3.12. Bamako Convention of 1991 bans import of hazardous wastes into Africa, complements the Basel Convention.

3.2.3.13. The World Convention Strategy of 1980

This prepared the International Union for Conservation of Nature. This convention identified a number of strategies for example: maintaining essential ecological processes and life support systems; protecting genetic diversity and sustainably using species and eco systems.

3.2.3.14. International Finance Corporation (IFC) Performance Standards & World Bank Environmental Safeguards

These are not treaties but set global standards for responsible oil and gas development, especially for funded projects.

Performance Standard 1 talks about Appraisal and control of Environmental and Social Risks.

Performance Standard 3 makes mention of efficient resource exploitation and Pollution control.

Performance Standard 6 deals with conservation of Biodiversity and Sustainable stewardship of Living Natural Resources.

Important to note is that Uganda ratified these laws and made efforts to domesticate them in its municipal laws.

3.3 Case Study

In Saudi Arabia, the preparation of Environmental and Social Impact Assessments (ESIA) relies on key policies and legal instruments such as Strategic Environmental Assessments (SEA), Environmental and Social Management Plans (ESMP), and baseline studies to protect the Environment and Climate from oil and Gas Activities²³³.

This is in line with the legal regime governing the impact of oil and gas activities on the environment and climate in Uganda.

Libya, as well has a regulatory framework that is in charge of making laws regulating the Oil and gas activities in Libya for example the establishment of the Ministry of Oil and Gas and the Ministry of the Environment have been relevant in the prevention of flaring and venting.

As stated in Article 2 of the Petroleum Law, 1955, the Minister of Oil and Gas ratifies decisions on granting, assigning, renewing, relinquishing, and canceling licenses and concessions, which are recommended by the Petroleum Committee. In addition, the director of petroleum affairs is also appointed by the Petroleum Committee

²³³ <https://theenvironmentconsultant.com/> accessed on the 29th, January, 2026

which shares monitoring and inspection powers with the Director. Also, the Director of petroleum affairs handles operational issues with licencees, including monitoring exploration operations, giving fiscal assessments authorisation as well as technical reports review²³⁴.

The adherence of the oil and gas sector in Uganda to environmental laws is a subject of debate, characterized by a mix of formal compliance by oil companies and significant concerns from civil society, environmentalists, and researchers regarding the actual impact in Uganda.

While the National Environment Management Authority (NEMA) and other agencies maintain that rigorous monitoring and legal frameworks are in place, independent reports and decided cases highlight significant violations, environmental risks, and failures in enforcement.

Uganda has established a legal and regulatory framework, as seen above, Environmental Impact Assessments (EIAs), for this case ESIs were approved for the Tilenga, Kingfisher, and EACOP projects, with NEMA issuing certificates for these flagship projects²³⁵, Monitoring Activities and Mitigation Measures when things get out of hand. The Environment and Climate are truly a great concern to all Nations worldwide and Uganda as a starter in the Oil and gas field should put the environment and climate first in all its Oil and gas Activities.

²³⁴ <https://flaringventingregulations.worldbank.org/libya#>: accessed on the 29th, January, 2026

²³⁵ <https://www.pau.go.ug/about-us/ehss> retrieved on the 29th, January, 2026

3.3 Conclusion

In essence, this chapter focuses on evaluating the various laws regulating the oil and gas activities (A case study of Uganda, for example the Albertine Graben). It illustrates the ways through which these laws facilitate the various mechanisms in relation to the Environment and the Climate. It further gives the processes undergone in order to utilise oil and gas legally and the consequences of not following the right procedures.

CHAPTER THREE

APPLICATION OF THE LAWS AND THE IMPACT OF OIL AND GAS ACTIVITIES ON THE ENVIRONMENT AND CLIMATE IN UGANDA

2.1 Introduction

Oil and gas activities in Uganda have environmental and climate impacts beyond legal boundaries, causing ecological harm, social disruption, and contributing to global climate change. These issues often arise from weak enforcement of existing laws and implementation gaps.

Uganda's laws aim to balance oil and gas development with environmental protection. The country has laws and regulations in place to minimize all oil and gas activities which contribute to environmental issues and climate change.

In Uganda, a range of legal and regulatory frameworks govern the oil and gas sector. These are established or intended to control resource extraction and tackle environmental and social impacts. These frameworks include the Constitution of the Republic of Uganda, 1995, the Petroleum (Exploration, Development and Production) Act, Cap 161, the Petroleum (Refining, Conversion, Transmission and midstream storage) Act Cap 162, The National Environment Act (NEA Act) Cap 181, and others as seen above aimed at overseeing the oil and gas sector, ensuring compliance with environmental standards for example Licensees need approval to flare or vent gas beyond safety needs, and facilities must minimize flaring/venting.

2.2 HOW THE LAWS HAVE BEEN APPLIED AND THE IMPACT OF OIL AND GAS ON THE ENVIRONMENT AND CLIMATE.

The Petroleum (Exploration, Development and Production) Act, Cap 161²³⁶, makes

provision for the establishment of the Petroleum Authority of Uganda and specifies that the Petroleum Authority of Uganda is established as a corporate body with its own identity, able to: Own and manage property, Sue and be sued, Perform actions needed to fulfill its functions under the Act. This has been successfully achieved; there exists the Petroleum Authority of Uganda²³⁷. Therefore, oil and gas operations

²³⁶ Section 9, of the Petroleum (Exploration, Development and Production) Act, Cap 161

²³⁷ Ibid

are legally handled, by legal bodies, which simplifies the process for victims of the adverse impacts of oil and gas activities to hold the government responsible.

The Petroleum Authority of Uganda (PAU) is the primary body responsible for making sure the oil and gas operations adhere to environmental, social, health, plus safety laws. The effectiveness of the body is pursued through several specific objectives:

Routine Audits and Inspections, the Petroleum Authority of Uganda conducts regular field inspections to strengthen the Health, Safety, and Environment (HSE) culture within the sector²³⁸.

Regulatory Compliance, there is a mandate to ensure that all licensed entities adhere to both local and international standards and best practices. The Petroleum Authority of Uganda in fulfilment of its legal mandate has Monitored the various environmental aspects in the oil and gas sector to ensure compliance with the environmental, legal and regulatory framework, including ensuring appropriate management of waste generated from the oil and gas sector, air quality monitoring, flood management, water management, chemicals management, noise and vibrations among others²³⁹.

Biodiversity Conservation, A specific goal of the framework is to make sure activities are performed so as to conserve biodiversity.

In collaboration with the Office of the Prime Minister and the National Environment Management Authority (NEMA), developed the National Oil Spill Contingency Plan (NOSCP), that serves as national framework document for oil spill planning,

²³⁸ <https://www.pau.go.ug/about-us/ehss> retrieved on the 13th of March, 2026.

²³⁹ <https://www.pau.go.ug/about-us/ehss> retrieved on the 13th of March, 2026.

preparedness, and response²⁴⁰. This Clearly indicates that the environmental laws have been adhered to its lawful mandate.

Secondly, the National Environment Management Authority (NEMA), created by the NEA Act, Cap 181, Although existed expeditiously prior to commencement of the Act and continues to operate under this Act. This body has surely tried to uphold the functions for which the body was established by law, that is to say; the NEMA has Issues environmental compliance certificates to Oil and gas Companies for example NEMA's grant of the ESIA certificate for the East African Crude Oil Pipeline in Kampala on Thursday, 3rd December 2020.

Meaning this NEMA takes into consideration how oil and gas operations affect the environment and climate and through Environmental and social impact assessment it weighs in on the possible negative results of the oil and gas operations on the environment and climate.

During 2024-2025, the Petroleum Authority of Uganda (PAU) together with National Environment Management Authority (NEMA) continued to enforce conditions on previously issued ESIAs for previously issued for projects including Tilenga and the East African Crude Oil Pipeline (EACOP), as part of Uganda's Oil & Gas Regulatory Compliance. Compliance monitoring in 2025 emphasizes strict adherence to waste management, biodiversity protection, and restoration plans²⁴¹. This is done in fulfilment of the Petroleum (Exploration, Development and Production) Act, Cap 161²⁴².

²⁴⁰ Ibid

²⁴¹ <https://api-iems.pau.go.ug> retrieved on the 13th of March, 2026.

²⁴² Sections 9 and 10 of the the Petroleum (Exploration, Development and Production) Act, Cap 161

Additionally, early this year (2026), the Petroleum Authority of Uganda (PAU) reported that it's actively reinforcing its environmental regulatory framework, particularly as the country approaches "First Oil" scheduled for July 2026. And that the PAU acting as the lead agency for monitoring environmental compliance in the upstream and midstream oil and gas sector, shall be thorough and exhaustive²⁴³.

Again, Joseph Kobusheshe, the Director Environment, Health, Safety and Security at PAU, said in an online article: "Government has put in place a robust policy, legal, institutional, monitoring and compliance enforcement framework to ensure that oil and gas activities mutually co-exist with the environment and social wellbeing of communities in the areas where oil and gas activities are being undertaken." He further noted: "No flaring or venting of oil or gas will be permitted during normal operations and, overall, the projects fall within the category of low emission."²⁴⁴

Relatedly, The judiciary in Uganda has been key in enforcing environmental law, interpreting laws, and resolving disputes related to environmental harm. It protects the right to a clean environment (Article 39 of the Constitution of the Republic of Uganda, 1995) and ensures compliance with environmental standards by state and private actors. Through judicial review, courts check administrative decisions, address environmental rights violations, and promote environmental justice access.²⁴⁵

²⁴³ https://x.com/PAU_Uganda/highlights

²⁴⁴ Environment issues take centre stage in Uganda's oil by Frank Kisakye November 2, 2023

²⁴⁵ Emmanuel B Kasimbazi, 'Environmental Regulation of Oil and Gas Exploration and Production in Uganda' (2012) 30:2, *Journal of Energy & Natural Resources Law*, 185

In Uganda, Judicial review functions as a means of making sure oil and gas operations adhere to environmental laws and policies and the constitutional standards and other relevant statutory procedures. Governmental actions impacting the environment, are subject to Court scrutiny, particularly when they violate constitutional rights or ignore statutory obligations such as carrying out Environmental Impact Assessments (EIAs)²⁴⁶.

In *National Association of Professional Environmentalists (NAPE) v Attorney General & National Environment Management Authority (NEMA)*²⁴⁷ The plaintiff, NAPE, filed a suit against the Ugandan government for failing to regulate oil and gas operations in reserved premises, for example Murchison Falls National Park. According to the plaintiffs, the oil operation presented a substantial risk to biodiversity and local communities that rely on natural resources. The court found that Uganda's National Environment Management Authority (NEMA) has a duty to strictly implement environmental laws, so as ensure oil extraction does not lead to irreversible environmental damage²⁴⁸.

This case is critical for environment and climate protection because it establishes precedents requiring that economic interests should be balanced with environmental conservation. It emphasizes the responsibility of regulatory agencies in securing sustainable resource control.

²⁴⁶ Kisubi Esther Christine, 'Environmental Justice and Participation of Local Communities in Decision-Making in the Oil and Gas Upstream Sub-Sector of Uganda By' (2023).

²⁴⁷ (2014)

²⁴⁸ Ibid

In 2025, the Uganda Petroleum Authority in execution of its mandate of monitoring and enforcing compliance, found out that the environmental compliance inspection generally found EACOP to be undertaking several project impact mitigation measures that the project committed to, and in fulfilment of the National environmental requirements and international best practices. Some few non-compliances and areas of improvement were identified and the EACOP site team plus their contractors/sub-contractors were informed through the debrief sessions²⁴⁹ Finally, in a bid to conservation efforts and environmental safeguards, Derick Katussiime of the Petroleum Authority of Uganda (PAU), stated that not every well site is drilled. Instead, wells are vertically, and at depth, they drill horizontally to link the surrounding wells to one well pad²⁵⁰.

2.2 Shortcomings in the application of the law and the impact of oil and gas activities on the environment and climate in Uganda.

There's no doubt, in the application of these laws there are shortcomings. Below are the ways in which the laws have failed to have force on oil and gas activities, and this has resulted into environmental threatening impacts:

The NEMA, the body charged with overseeing environmental issues failed to prevent, and/or handle **Environmental Degradation:** The Kingfisher development project

²⁴⁹https://api-iems.pau.go.ug/api/inspection/report/downloads/Report%20on%20EACOP%20Environmental%20Compliance%20Monitoring_March%202025.pdf retrieved on the 10th of February, 2026,

²⁵⁰ <https://observer.ug/news/oil-tackling-ecological-risks-in-uganda...> retrieved on the 5th of February, 2026.

has also caused degradation of the natural environment, like air, land, and water contamination. According to the Fisherfolk report, slicks and dead fish have been seen in the lake, along with a sharp decline in fish stocks in the Kingfisher premises. Two whistleblowers who were employed by the CNOOC subcontractor handling drilling operations informed Climate Rights International that they received instructions to discharge oil and chemical waste straight into the lake, and on the land, from where it later runs into the lake²⁵¹. This clearly shows that the environmental laws have been ignored.

In the case of **Nantongo v. Total E&P Uganda**,²⁵² local residents filed a suit against Total E&P Uganda, alleging that the defendant's oil exploration operations caused environmental damage and loss of livelihood. The plaintiffs prayed for compensation for environmental degradation and injunctive relief to restrain further exploration operations. The court examined the duties of oil companies prevent environmental damage and afford adequate remedies to affected communities, emphasizing the need for oil companies are required to implement effective environmental management practices and to compensate for losses sustained by communities²⁵³.

In **Oluka v. Uganda Petroleum Authority**²⁵⁴ The Plaintiff filed a suit against the Uganda Petroleum Authority alleging failures to enforce environmental standards and protect community rights expanding oil extraction operations. The plaintiffs contend that the Authority had not adequately monitored and regulated the environmental effects of oil projects. The court assessed the Petroleum Authority's

²⁵¹ Climate Rights International - (Brussels, September 2, 2024)

²⁵² HCCS No. 47 of 2020

²⁵³ Ibid

²⁵⁴ HCCS No. 56 of 2021

regulatory control and its duty to ensure compliance with environmental standards, reaffirming the requirement for stringent monitoring and implementation of environmental regulations by regulatory bodies²⁵⁵.

In Nigeria, oil spill pollution of the topsoil has rendered the soil in the surrounding areas "unsuitable for plant growth by reducing the availability of nutrients or by increasing toxic contents in the soil". Gas flaring is associated with reduced crop yields and impaired plant growth on neighbouring farms, as well as disturbance to wildlife in the immediate vicinity (TED case studies). Oil spills are additionally linked to lead and barium poisoning resulting from contamination of drinking water by oil spills precipitated by political instability and civil wars (New Vision 4th March 2016). Beyond causing lung cancer, gas flaring contributes to global warming and acid rains with subsequent destruction of trees and fish in acidified lakes.

Bodo Community v. Shell Petroleum Development Company of Nigeria (SPDC) Ltd,²⁵⁶ Approximately 15,000 residents of the Bodo community in Gokana Local Government, Rivers State (Niger Delta) sued SPDC in the UK, alleging massive oil spills in 2008 and 2009 from Shell's Trans-Niger pipeline.

The spills destroyed fisheries, mangroves, and livelihoods. Shell initially blamed sabotage but later admitted that the spills were due to operational failures. One of the Issues was SPDC negligent in maintaining its pipelines and preventing the spills?

Before trial, Shell agreed to a £55 million (≈ US \$83 million) settlement: £35 million to 15,600 individual claimants, £20 million to the Bodo community for

²⁵⁵ Ibid

²⁵⁶ [2015] EWHC (QB)

environmental

restoration.

Shell also agreed to clean up the affected area in accordance with UNEP recommendations.

This case affirmed the entity's duty of care and upheld affected communities' right to compensation and environmental remediation. Pressured Shell and other oil majors to improve pipeline integrity and response systems.

The NEMA and the Petroleum Authority Uganda have failed to fully manage/control the Emission of Dangerous Gases to the Greenhouse: so the NEMA and PAU has characterized by weak enforcement, substandard Environmental Impact Assessments (EIAs), and mounting ecological degradation in the Albertine Graben region. Despite the existence of a regulatory framework and these institutions gaps between policy and practice have resulted in significant environmental impacts²⁵⁷.

Vulnerability and Accelerated Climate Impacts: Uganda is already highly susceptible to climate change effects, such as prolonged droughts, flooding, and erratic rainfall. By increasing global emissions through fossil fuel production, the oil industry exacerbates these existing climate challenges, which in turn harm other key sectors like agriculture²⁵⁸.

Displacement of wildlife: The Albertine Rift area is biodiverse and internationally recognized as a biodiversity haven in company of a variety of birds, mammals, amphibians and reptiles within in reserved premises like forest reserves, community wildlife reserves, wildlife reserves and national parks²⁵⁹. UNESCO has characterised

²⁵⁷ <https://ugandaradionetwork.net/a/story/study> retrieved on the 15th February 2026.

²⁵⁸ Ibid. and The Open oil Edition

²⁵⁹ (NEMA 2010; NEMA 2012)

petroleum operations as conflicting with the Albertine Rift, which hosts a quarter of the global mountain gorilla population²⁶⁰.

As stated by Buliisa district leaders, Wild animals began encroaching on communities in 2021, entering people's homes and resulting in fatalities and the destruction of crops and homesteads, a phenomenon some ascribe to oil and gas operations²⁶¹.

The seismic reflection methods applied in hydrocarbon exploration are linked to dynamite detonations that destabilize animal patterns of feeding, breeding and communication, including relocation to other premises. Furthermore, exploration operations result in the clearing of vegetation cover thereby causing habitat disturbance and loss of species, with subsequent extended periods for vegetation recovery²⁶². Surely the NEMA and PAU have failed to execute their lawful mandates in relation to environmental concerns.

Oil spills during the production phase result in ecosystem destruction and loss of biodiversity, affecting birds, mammals, and fish. Birds experience adverse effects including impede the breeding grounds, destabilizing of migratory birds, degradation of natural waterproofing and insulation against bad weather and mortality²⁶³.

Another disastrous effect of oil and gas activities as a result of ineffective law enforcement is **pollution**. Pollution encompasses water, air and noise pollution and

²⁶⁰ Vision Reporter, 15th March 2015

²⁶¹ By Alan Mwesigwa April 9,2024 Buliisa Leaders threaten demo over animal attacks accessed on 2nd 2025.
And The National oil policy 6.2.4

²⁶² (NEMA 2012).

²⁶³ (NEMA 2010).

pollutants may be in liquid, solid, or gaseous form. Each of these substances has adverse impacts on the environment.

Although laws such as the National Environment Act have been established and contain the environmental Principles including the polluter pays principle, certain effects are irreversible. Oil leaks readily contaminate water, leading to loss of aquatic life, as well as water bodies providing habitats for aquatic species such as fish. The loss of aquatic life disrupts the food chain and may leave humans without food sources.

Fire outbreaks; since Oil and gas are highly flammable, during drilling, transportation, storing and others for example what happened in Kigongwa, early 2025, where a fuel tank fell down and many people lost their lives and property.

Soil erosion when it rains, this affects the Soil Structure.

2.4 In conclusion, oil and gas activities in Uganda if unchecked pose significant environmental and climate risks. Echoing experiences from countries like Nigeria and Chad. Weak law enforcement, corruption, and inadequate safeguards have led to ecological harm, social disruption, and contributions to global climate change. Uganda's biodiversity-rich Albertine Rift is particularly vulnerable, threatening ecosystems, wildlife, and local livelihoods. With climate change exacerbating droughts, floods, and food insecurity, Uganda's fossil fuel expansion undermines its Paris Agreement commitments and development goals. Strengthening environmental regulations, transparency, and accountability is critical to mitigate these impacts and ensure sustainable development

CHAPTER FOUR

4.0 SUMMARY OF FINDING, CONCLUSIONS AND RECOMMENDATIONS

4.1. Introduction

The main aim of this study was to examine the impact of Oil and Gas activities on Uganda's environment and climate. The current chapter offers general observations, summarises the findings, outlines data collection challenges, and culminates in recommendations drawn from the findings along with a general conclusion.

4.2. Summary of Findings

This research's observations are based on an analysis of the intensive literature reviewed and data obtained from different Sources such as the principal law, subsidiary laws, Reports, journals, articles, textbooks and websites. This research highlights several points:

4.3 Challenges of the Research

This study was challenged by a couple of adversities especially in respect to data collection.

Environmental Weakness in Contract Design: Most oil and gas investment contracts lack detailed environmental obligations. They typically refer vaguely to compliance with “applicable law” (which may be outdated). They do not require adherence to international environmental conventions. And lack independent monitoring or reporting obligations.

Stabilization Clauses as a Barrier to Environmental Reform: Stabilization clauses often “lock in” the regulatory framework existing at the time of signing. If a government later introduces stricter pollution standards or carbon taxes, investors may claim “breach of contract” or seek compensation under investment treaties. This discourages governments from enacting stronger environmental laws, particularly in developing countries dependent on oil revenue. **Tienhaara** notes that stabilization clauses effectively “privatize” regulatory risk,

transferring it from investors to host states and undermining sustainable development²⁶⁴.

Case Study: Tienhaara²⁶⁵ reviewed sample petroleum contracts from countries like Nigeria, Kazakhstan, and Ecuador, noting:

Environmental clauses are typically boilerplate and lack enforcement detail. In some contracts, the company only needs to comply with “Good International Petroleum Industry Practice,” a vague standard. Stabilization clauses explicitly included “environmental laws” among the frozen provisions, restricting future reforms.

Uganda as a learner should prioritise environment laws and work on its implementation and not fronting transactions. This is because Oil and Gas is a non renewable resource that can get finished, yet the environment if well cared for lasts for generations.

Investor-State Dispute Settlement (ISDS) and “Regulatory Chill”: Environmental disputes often end up in international arbitration for example, ICSID, where tribunals focus on investor protection, not environmental harm. Fear of being sued by powerful oil corporations creates a “regulatory chill” where governments hesitate to impose environmental restrictions.

²⁶⁴ Kyla Tienhaara, (2018) The Legal Status of Stabilization Clauses Under International Law: The Current Practice: A Sustainable Development Approach.

²⁶⁵ Kyla Tienhaara is an Assistant Professor in the School of Environmental Studies and the Department of Global Development Studies at Queen's University, Canada.

Transparency and Public Participation Deficits: Contracts are usually confidential; communities and environmental agencies often cannot access them. This secrecy reduces accountability and public oversight of environmental performance.

Finally, economic benefits are perceived as taking precedence over both social and environmental concerns. Oil and gas activities produce more adverse than positive outcomes, yet the Government has chosen to disregard potential future impacts from these operations. The challenge is that some view oil and gas activities as beneficial and overlook the environmental consequences they generate.

4.4. Conclusions.

In conclusion, The study looked at how oil and gas activities in Uganda affect the Environment and Climate. It was guided by the following objectives: to identify the ongoing oil and gas activities, to assess their impacts on the environment and climate, and to determine approaches that can mitigate these impacts. The findings indicate that operations in the Albertine Graben have effects on the environment and climate. The impact of oil and gas activities in Uganda is a critical issue that must be addressed to protect the environment and climate for future generations.

Achieving this requires an effective platform for demanding accountability and transparency, ensuring that powerful oil corporations and governments comply with environmental laws and human rights obligations.

For such efforts to succeed, there must be strengthened legal frameworks, community empowerment, effective enforcement mechanisms, and international cooperation to address transboundary pollution and uphold global environmental and climate standards.

The study further concludes that oil and gas exploration activities exerted a modest positive influence on the environment and climate. Nevertheless, the involvement of government and corporate actors in mitigating the adverse effects of these operations on environment and climate is limited. The findings of this study provide a valuable reference for state institutions and private entities in Uganda during the review of legal and policy frameworks governing the oil and gas sector prior to the commencement of production, with the aim of averting detrimental impacts on Environment and climate. However, current mitigation measures have only a minimal effect on the extent of the environment and climate engaged in oil and gas enterprises.

4.3. Recommendation.

Adequate Compensation to the Displaced people²⁶⁶ and devising means to settle Animals that have been displaced by the Oil and Gas activities²⁶⁷

²⁶⁶ Asuman Irumba and Anor V URA, CIVIL APPEAL NO: 02 OF 2014. (the compensation should be timely, adequate and prompt)

²⁶⁷ Ministry of Land and Urban Development (2015) (on the role of the chief Government Valuer of Uganda on settling the displaced)

Incorporate explicit environmental performance standards (e.g., compliance with IFC, UNEP, ISO 14001).

Exclude environmental laws from stabilization clauses. Making environmental laws a standalone law will make it more stronger and visible.

Mandate public disclosure of petroleum contracts and EIAs.

Create independent environmental oversight mechanisms with enforcement powers. Align investment contracts with host state obligations under international environmental treaties (UNFCCC, CBD, Basel, and others.).

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