

**AN ASSESSMENT OF THE IMPACT OF OIL AND GAS EXPLORATION ON TOURISM IN
UGANDA A CASE STUDY OF ALBERTINE REGION**

TREVOR GODREY AKAMBAMU

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**UGANDA CHRISTIAN
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DECLARATION

Akambamu Trevor Godfrey hereby declare this report as my work and has not been submitted before to any other academic institution for fulfillment of any academic award.

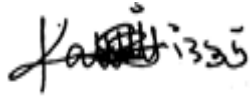
Signed..........

Date.....30th April,2024.....

APPROVAL

This is to certify that, this report entitled “An assessment of the impact of oil and gas exploration on tourism in Uganda” has been done under my supervision and now it is ready for submission.

Signature:

A handwritten signature in black ink, appearing to read 'Kasiko Izimba Isabella', written over a faint, illegible printed name.

Ms. Kasiko Izimba Isabella

Date: 1st May, 2024

DEDICATION

I dedicate this work to my parents Mr. and Mrs. Stephen Katanywa who have assisted me academically and whose support was tremendously tireless both financially and pray fully, encouraged and cared for me until to the accomplishment of my course. And I pray that God should bless you them abundantly.

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I extend my appreciation to the Almighty God for the strength, wisdom and guidance granted to me throughout my stay and study at this academic institution. I also thank all fellow students and lecturers at this institution for the time, knowledge and guidance they have rendered me, making me a better person with new skills in my career.

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ABSTRACT

The study intended to investigate the effects of oil and gas exploration on tourism in the Albertine region of Uganda. The objectives of the study were to examine the threats and opportunities posed by the petroleum industry on Uganda's tourism sector, to examine the hotspot areas for the better growth of the tourism sector in the region and to analyse the relevance of the industry on the tourism sector in Western Uganda.

The Methodology that was used, in conducting the research was both quantitative and qualitative approaches. Data was collected using a self-administered Questionnaires as well as review of available documents and records. Data was analysed using SPSS software where conclusions were drawn from.

The study revealed that the oil and gas exploration activities in the Albertine region have led to opportunities like improved road network, oil revenues in form of taxes that can be invested in the tourism sector, hotels for accommodation among others within the Albertine region. The study further identified that oil and gas exploration activities are associated with threats like oil spills, noisy activities that have chased away the animals from their comfort zones, unprotected open holes trapping wild animals.

This study recommended that the oil and gas exploration companies should seriously put into consideration the impact of mitigation and development framework on their activities that have affected the tourism sector, all stakeholders to embark on expressive permission in form of sustainable employment, hands on skills, funded by these sectors for the better growth of the community members and Department of Petroleum Exploration, Production and Development (PEPD) to effectively perform its supervisory role of monitoring and controlling the activities of the petroleum exploration and production.

1 CHAPTER ONE: INTRODUCTION

1.1 Introduction.

1.1.1 Background of the Study

Tourism is among the most economically important set of industries in the entire world yet on the other hand it is also one of the most vulnerable to crisis or disasters (P for 2009). According to Faulkner, (2001) an increasing number of disasters and crisis' affect tourism industries and sub industries ranging from natural to human influenced incidents. In recent years, tourism was globally influenced by many crises and disasters, including terrorist attacks, political instability, economic recessions and natural disasters. Faulkner (2001) and Ritchie (2004) argued that there is lack of research on the impact of such events on both tourism industries and at their destination.

This research explored the potential impact of Uganda's new petroleum industry on the country's tourism sector. Uganda is naturally endowed with many resources and has unlimited potential to become a leading tourist destination. Despite insufficient budget allocation to tourism, the sector has been growing and the new oil industry offers great opportunities to boost it further.

Uganda's oil resources are onshore neighbouring rich tourist sites. There is thus a danger that the blossoming oil industry will have some negative and destructive effects on tourism territories, the environment and the economy. Murchison Falls National Park where some of the oil operations take place have about 400 species of mammals, including elephants, buffaloes, giraffes, lions and leopards. Tour activities consist of game drives, bird watching, boat rides to Murchison Falls, and sport fishing (UWA, 2001).

According to Uganda Wildlife Authority (UWA), "Uganda National parks alone collected revenue worth Uganda shillings 6.8billion within the financial year of 2011-2012. Generally, the tourism sector contributed USD 662 million in 2011, representing 11.4 percent of the total country 's foreign exchange earnings."

Therefore, this study analysed the impact of oil and gas exploration activities on tourism. Thereafter, the regulations of the Oil and gas industry to the players are considered, in view of promoting and protecting the country's tourism sector. Finally, some success stories and lessons from international best practice are given, from which Uganda can learn, plus some key policy recommendations for the way forward.

The land surrounding Lake Albert is rich in biodiversity and is partly a designated protected area on the Ugandan side. Much of the land is used for agriculture (crops and livestock) and human settlements, while the lake provides fish for the surrounding communities and beyond, Ituri on the DRC side and Hoima, Nebbi, Kibale, Amuru, Buliisa, and Bundibugyo on the Uganda side surrounding the lake (Morrison 2014).

Birdlife International identified it as an 'endemic bird area, World Wildlife Fund named it 'eco-region' and finally Conservational International called it a 'biodiversity hotspot'. The region has high species diversity, including 39% of Africa's mammal species, 51% of its bird species, 19% of its amphibian species and 14% of its plant and reptile species. It harbours more endemic species than any other region in Africa. It is also home to 79 threatened terrestrial vertebrates according to IUCN Red Data book listings as such it is one of the most important conservational eco regions in Africa (WCS 2009).

1.2 Statement of the Research Problem

Uganda is currently uplifting its energy sector through exploration and development of the oil resources onshore surrounded by rich tourist sites. There are thus effects that the blossoming oil industry will impact on tourism industry, and particularly the environment and the economy.

For instance, most of the new oil operations are taking place in the highly valued Murchison Falls National Park where over 400 identified species of mammals are, including elephants, buffaloes, giraffes, lions and leopards. Pleasure trip activities for tourists consist of game drives, bird watching, boat rides to Murchison Falls, and sport fishing (UWA, 2001).

Uganda National parks alone collected Uganda shillings 6.8 billion in revenue in the 2011-2012 fiscal years (UWA 2012). Overall, the tourism sector contributed USD 662 million in 2011, representing 11.4% of the total country's 'foreign exchange earnings (UBOS 2012).

Therefore, the impacts of oil and gas exploration activities in the highly rich biodiversity area of the Albertine Rift largely need to be carefully assessed for ecological and economic reasons.

Oil & gas exploration and development will inevitably attract other industries and urban growth, which will also have resultant impacts that will in the long-term affect ecosystems and land cover and no doubt the species that are associated within the area (Nature Uganda 2011).

1.3 Justification of the Study

Both tourism and the Oil exploration are very crucial in the economic development of this country since they forefront growth. Therefore, an assessment of the impact of Oil and gas exploration to tourism is very essential for Uganda to identify and fix the loopholes in the sector to ensure both sectors boom and continue to support the country's economic development.

1.4 Objectives of the Study

1.4.1 Overall Objective

- To assess the impact of oil and gas exploration on the tourism industry in the Albertine region.

1.4.2 Specific Objectives

- To identify the threats and opportunities of exploration activities in the Albertine region.
- To assess the protection measures towards the hotspot areas in the Albertine region.
- To analyse the relevance of the petroleum industry to the tourism sector in Albertine region and Uganda.

1.5 Research Questions

1. What are the threats and opportunities of exploration activities in the Albertine region?
2. What protection measures have been effected towards the hotspot areas in the Albertine region?
3. What is the relevance of the oil and gas industry to the tourism sector in the Albertine region?

1.6 Scope of the Study.

1.6.1 Content Scope

This study was limited to assessing the impacts of oil and gas exploration on tourism industry particularly in the Albertine region. The study also limited to six (6) sub counties of Buliisa, Biiso, Kihungya, Butiaba, Kigwera, Ngwedo and Buliisa in the Albertine region targeting about 90 respondents.

1.6.2 Geographical Scope

The research was conducted in western Uganda in the Albertine region particularly in Bulisa and Hoima Districts. The region was a point of focus as a case study because it is a centre of oil and gas exploration activities.

1.6.3 Time Scope

The study was carried out for a period of two (2) months from late Feb to mid-April 2024 to gather the needed information. However, the research also focused on the literature of oil and gas exploration for the last 12 years from 2012 to date with the primary data collected and analyzed for better results and recommendations.

1.7 Significance of the Study

The research will help tour operators (companies) know which areas have low or high biodiversity in the protected areas and how to cooperatively work with oil and gas operators.

The study will also help the Researcher in formulating conclusions and recommendations that will be of use for further research about the same or related topics, interviews and observations.

The research will also help the Environmental organizations to implement the laws of oil waste disposal, conservation of flora and fauna in the Albertine Graben.

The Research will help the oil players become aware of the impact they will cause to the environment and other development sectors in case they do not follow the proper standards and guidelines in reserving the tourism attraction sites and wildlife.

This study will create awareness to the residents of the region and their leaders on the relevance and the impact of the exploration activities to the tourism sector.

2 CHAPTER TWO. LITERATURE REVIEW

2.0. Introduction

According to (Hart, 1998), literature review is “the selection of available documents on the topic which contains information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express different views on the topic and the effective evaluation of these documents in relation to the research being proposed.”

2.1 Opportunities of oil and gas exploration activities in the Albertine region

According to (Musisi, 2013) Oil and gas exploration in Uganda can potentially create opportunities for the tourism sector in various ways:

Among these include Infrastructure Development: Oil and gas projects often require significant infrastructure development, including roads, airports, and accommodations. Improved infrastructure can enhance accessibility to remote areas, making it easier for tourists to visit national parks, wildlife reserves, and other attractions.

Musisi further explains that Oil and gas projects create employment opportunities, both directly and indirectly, through construction, operations, and associated services. Increased employment can stimulate local economies and provide income-generating opportunities for communities, which may in turn support tourism-related businesses and services.

Oil and gas exploration can generate revenue for the government through taxes, royalties, and other fiscal mechanisms. This revenue can be invested in infrastructure development, conservation efforts, and tourism promotion initiatives, contributing to the growth of the tourism sector (Musisi, 2013).

While oil and gas exploration may be the primary focus of investment, it can also stimulate investment in other sectors, including tourism. Diversification of offerings, such as adventure

tourism, eco-tourism, and cultural tourism, can attract a broader range of visitors and enhance the overall tourism experience.

Strengthening Conservation Efforts: Oil and gas companies often implement environmental management and conservation measures as part of their operations. This can include habitat restoration, biodiversity conservation, and community development initiatives, which may benefit ecotourism and wildlife tourism in the long term.

Promotion of Sustainable Practices: US greenhouse gas (GHG) emissions have decreased from the [year 2000 highs](#). It bears mentioning that the oil and coal figures for 2020 were lower than during the 1973-1974 oil embargo. Advancements in technology have spearheaded these declines. Companies are operating more efficiently and reducing their environmental impacts. (PORTILLA, 2022)

International Attention and Marketing Opportunities: The presence of oil and gas reserves in Uganda can attract international attention and investment, raising the country's profile as a destination for business and leisure travel. This increased visibility can be leveraged to promote tourism through marketing campaigns, trade shows, and partnerships with travel industry stakeholders (Musisi, 2013).

However, it's important to note that the potential benefits of oil and gas exploration to the tourism sector depend on effective planning, management, and collaboration between various stakeholders to mitigate potential negative impacts and maximize positive outcomes for sustainable tourism development. Balancing economic development with environmental conservation and community welfare is essential for realizing the full potential of oil and gas exploration to benefit the tourism sector in Uganda (Musisi, 2013).

2.2 Threats of oil and gas exploration activities in the Albertine region.

According to (Musisi, 2013), oil and gas exploration activities in the Albertine region, like any other industrial operation, pose various environmental, social, and economic threats. Here are some of the key threats associated with oil and gas exploration in the Albertine region:

Environmental Degradation: Exploration activities such as seismic surveys, drilling, and construction of infrastructure can lead to habitat destruction, soil erosion, deforestation, and contamination of water sources. Spills and leaks from drilling operations can result in oil pollution, harming aquatic life and ecosystems.

He adds that exploration activities release pollutants into the air and water, including greenhouse gases, volatile organic compounds (VOCs), and heavy metals. This pollution can degrade air quality, contribute to climate change, and contaminate water sources, affecting both human health and the environment.

Habitat destruction and fragmentation caused by exploration activities can threaten the region's biodiversity, including endangered species. Oil spills and pollution can also have long-term impacts on ecosystems, disrupting food chains and reducing biodiversity.

Social and Cultural Impacts, Oil and gas exploration can lead to social disruption and conflict, particularly among indigenous communities and marginalized groups whose livelihoods depend on the land and natural resources. Increased population influx, changes in land use, and disputes over land rights can exacerbate social tensions and affect cultural heritage (Musisi, 2013).

Exposure to pollutants from exploration activities, such as air emissions and water contamination, can pose health risks to nearby communities. Respiratory problems, waterborne diseases, and other health issues may arise, particularly among vulnerable populations living near drilling sites.

Musisi says the extraction and combustion of fossil fuels contribute to greenhouse gas emissions, exacerbating climate change. Oil and gas exploration in the Albertine region could lead to increased emissions, further intensifying the impacts of global warming, including extreme weather events and sea-level rise.

Economic Dependence and Volatility, while oil and gas exploration can bring economic benefits in terms of revenue and employment opportunities, it can also create dependence on fossil fuels and expose the region to economic volatility. Fluctuations in global oil prices and market

demand can impact the stability of local economies, leading to boom-and-bust cycles and socioeconomic challenges.

Addressing these threats requires comprehensive environmental and social impact assessments, robust regulatory frameworks, effective mitigation measures, and meaningful engagement with local communities and stakeholders. Sustainable development practices that prioritize environmental protection, social equity, and economic diversification are essential for mitigating the adverse effects of oil and gas exploration in the Albertine region.

Oil and gas drilling has a serious impact on the wildlands and communities i.e. within the Albertine graben as drilling projects operate around the clock causing pollution, disrupting wildlife, fueling climate change and leading to public lands destruction (DAVID KINGHAM, 2021)

2.3 Hotspot areas in the Albertine region

The Albertine Rift region is known for its exceptional biodiversity and is home to numerous hotspot areas that support a wide range of plant and animal species, including many endemic and threatened species. (Palance, 2017) Some of the key hotspot areas in the Albertine region include:

Bwindi Impenetrable National Park: Located in southwestern Uganda, Bwindi is renowned for its population of mountain gorillas, which are critically endangered. It is also a UNESCO World Heritage Site and one of the most biologically diverse areas in Africa, supporting a variety of other primate species, birds, and plant life.

Murchison Falls National Park: Situated in northwestern Uganda, Murchison Falls National Park is the largest and oldest conservation area in the country. It is named after the dramatic Murchison Falls where the Nile River plunges through a narrow gorge. The park is home to diverse wildlife, including elephants, lions, giraffes, and numerous bird species.

Queen Elizabeth National Park: Located in western Uganda, Queen Elizabeth National Park is known for its diverse ecosystems, including savannah grasslands, wetlands, and tropical forests.

The park is home to iconic wildlife species such as elephants, lions, hippos, and chimpanzees, as well as the rare tree-climbing lions of Ishasha.

Kibale National Park: Situated in western Uganda, Kibale National Park is renowned for its population of chimpanzees and is one of the best places in Africa for chimpanzee tracking. The park also harbors a variety of other primates, including red colobus monkeys, red-tailed monkeys, and L'Hoest's monkeys.

Rwenzori Mountains National Park: Located along the border between Uganda and the Democratic Republic of Congo, the Rwenzori Mountains are often referred to as the "Mountains of the Moon." The park is known for its stunning alpine scenery, glacier-capped peaks, and unique Afro-alpine vegetation, as well as its diverse array of wildlife. (Palance, 2017)

Semuliki National Park: Situated in western Uganda, Semuliki National Park is part of the larger Ituri Forest ecosystem and is one of the most biodiverse areas in Africa. The park is known for its lowland tropical rainforest, hot springs, and diverse birdlife, including the elusive shoebill stork.

Lake Albert: Lake Albert is a major water body in the Albertine Rift, located on the border between Uganda and the Democratic Republic of Congo. The lake and its surrounding wetlands support a rich diversity of bird species, including migratory waterfowl, as well as fish species of ecological and economic importance.

These hotspot areas are of significant conservation value and attract tourists from around the world who come to experience the region's unique biodiversity and natural beauty. Efforts to conserve and sustainably manage these areas are essential for protecting the Albertine Rift's ecological integrity and supporting the livelihoods of local communities. (Palance, 2017)

2.4 Protection measures effected towards the hotspot areas in the Albertine region.

Protection measures in the Albertine region, particularly in hotspot areas with high biodiversity and ecological significance, typically involve a combination of conservation efforts, regulatory frameworks, and community engagement initiatives. Here are some key protection measures that have been implemented.

National Parks and Protected Areas: Uganda has established several national parks and protected areas in the Albertine region to conserve its rich biodiversity. For example, Queen Elizabeth National Park, Murchison Falls National Park, and Bwindi Impenetrable National Park are among the flagship protected areas in the region. These parks provide habitat protection for a wide range of species, including iconic mammals such as elephants, lions, and mountain gorillas.

Conservation NGOs and Initiatives: Non-governmental organizations (NGOs) play a crucial role in conservation efforts in the Albertine region. Organizations such as the Uganda Wildlife Authority (UWA), Wildlife Conservation Society (WCS), and Worldwide Fund for Nature (WWF) work to protect key biodiversity areas, conduct research, and implement community-based conservation programs. (Palance, 2017)

Legislation and Regulation: Uganda has established laws and regulations to govern natural resource management and conservation. The Wildlife Act, Forest Act, and National Environment Act are among the legal frameworks that guide conservation efforts and regulate activities in protected areas. These laws provide the legal basis for enforcing conservation measures and addressing threats such as poaching, illegal logging, and habitat destruction.

Community-Based Conservation: Engaging local communities in conservation efforts is essential for long-term sustainability. Community-based conservation initiatives, such as community conservation areas and collaborative management approaches, empower local communities to participate in conservation activities, benefit from ecotourism revenues, and support wildlife protection efforts.

Ecotourism Development: Sustainable tourism development can provide economic incentives for conservation while raising awareness about the value of biodiversity. Ecotourism initiatives in the Albertine region promote responsible travel practices, support local livelihoods, and contribute to conservation funding through park fees and tourism revenues.

Research and Monitoring: Continuous monitoring and research are essential for understanding ecosystem dynamics, assessing conservation effectiveness, and identifying emerging threats. Scientific research conducted by government agencies, research institutions, and conservation organizations informs management decisions and helps guide conservation strategies in hotspot areas.

International Collaboration: he added that Collaboration with international partners, donors, and conservation organizations enhances the capacity for conservation efforts in the Albertine region. Partnerships with organizations such as the United Nations Development Programme (UNDP), the United States Agency for International Development (USAID), and the Global Environment Facility (GEF) provide funding, technical expertise, and support for conservation projects and initiatives.

These protection measures represent a multi-faceted approach to conserving the biodiversity and ecological integrity of hotspot areas in the Albertine region. By addressing threats such as habitat loss, poaching, and unsustainable resource exploitation, these efforts aim to safeguard the region's natural heritage for future generations. (Palance, 2017)

2.5 The relevance of the oil and gas exploration activities to the tourism sector in the Albertine region

The oil and gas industry can have both direct and indirect impacts on the tourism sector in the Albertine region of Uganda. Here's how the two sectors are interconnected and the relevance of the oil and gas industry to tourism (Musisi, 2013):

The development of the oil and gas industry can contribute to overall economic growth in the region. Increased investment in infrastructure, such as roads, airports, and hotels, can benefit not

only the oil and gas sector but also the tourism industry by improving accessibility to tourist destinations and facilitating travel within the region.

He confirmed that the oil and gas industry creates employment opportunities, both directly and indirectly, through exploration, production, and associated services. This influx of jobs can stimulate local economies and lead to increased spending on tourism-related activities, such as accommodation, restaurants, and tour services, thereby supporting livelihoods in the tourism sector.

Oil and gas projects often require significant infrastructure development, such as ports, pipelines, and support facilities. The construction of such infrastructure can improve the overall tourism infrastructure in the region, making it more attractive and accessible to visitors (Musisi, 2013). For example, upgraded transportation networks can facilitate travel to national parks and other tourist destinations.

He further explains that “oil and gas exploration can generate revenue for the government through taxes, royalties, and other fiscal mechanisms. This revenue can be reinvested in the tourism sector through funding for conservation efforts, infrastructure development, and tourism promotion initiatives, thereby supporting the growth and sustainability of the tourism industry.

While oil and gas exploration may be the primary focus of investment, it can also stimulate investment in other sectors, including tourism. Diversification of offerings, such as adventure tourism, eco-tourism, and cultural tourism, can attract a broader range of visitors and enhance the overall tourism experience in the region.

Promotion of Sustainable Practices: The presence of the oil and gas industry can encourage the adoption of sustainable practices in both sectors. Collaborative efforts between the oil and gas industry and the tourism sector can promote responsible environmental stewardship, community engagement, and cultural preservation, leading to more sustainable development outcomes for the region as a whole” (Musisi, 2013).

While the oil and gas industry can bring opportunities for the tourism sector in the Albertine region, it's important to carefully manage potential negative impacts, such as environmental degradation and social disruption. Balancing the interests of both sectors and implementing effective regulations and mitigation measures is crucial to ensuring that the development of the oil and gas industry complements rather than undermines the long-term sustainability of the tourism sector in the region.

3 CHAPTER THREE; RESEARCH METHODOLOGY

3.1 Introduction

This chapter consists of Research paradigms, design (strategy) types of measurement, Research population, sample population, sampling procedure, data collection tools, reliability and validity of data and ethical consideration.

3.2 Research Design

An explanatory research design will be used involving both qualitative and quantitative designs. Interpretation of findings or results interpretations of findings was based on the overall research goal, research objectives, interviews and research questions as per suggested topic.

3.3 Study Population

The study is targeting or will be conducted in the Albertine region and particularly Buliisa District. This study is targeting a population of 90 people in total. And these were drawn from 6 sub counties of Buliisa, Biiso, Kihungya, Butiaba, Kigwera, Ngwedo and Buliisa Town council that included those directly involved in or with the knowledge about the effects of oil and gas exploration on tourism in the Albertine region with key focus on the international oil companies, area residents, politicians, environmental officers and local council and municipal members and few from the tourism sectors (game reserve workers and hospitality companies).

3.4 Sample size.

It will comprise some selected members who are referred to as elements. Therefore, sampling is the procedure of choosing a satisfactory number of elements from the population so that a study of the sample and an understanding of its characteristics would make it possible to make such characteristics to the population elements. The respondents will comprise of both female and male and with different marital with different levels of education and age groups.

The sample size of respondents considered is 90 that includes some local community members, environmental officers, local councils and municipal members, politicians, oil companies and the tourism sector.

This will be selected using a formula for determining sample size by (Yamane, 1967) as shown below.

$$n = \frac{N}{1 + N(e)^2}$$

Where n = Sample Size

N = Total Population

e = sampling error value (0.05)

$$n = \frac{200}{1 + 200(0.05)^2}$$

=90 elements

3.5 Sampling method.

According to scholars, the sampling method is the procedure a researcher used to gather people, places or things studied. (Kombo and tromp, 2006). This is the process of selecting the number of individuals or objects from a population representative characteristic found in the whole group. In this study different sampling techniques were used; the researcher will use stratified and random sampling because the sample elements contain different characteristics.

The study will also use purposive sampling that involves the researcher to use their own judgement or common sense regarding the information to be collected from the respondents. Therefore, the choice of the respondents will be based on the researcher's experience with the respondents' possession of the essential information. The researcher will choose what will be needed to be known and set out to find people who can and are eager to provide the information by virtue of information or experience.

3.6 Sources of data

In this research two types of data will be used by the researcher and secondary and primary data. Primary data will be collected fresh for the first time and never processed before. While the secondary was data which had already been already collected by someone else for other purposes and was used to compile raw data. However, our focus will mainly be dealing with primary data.

3.6.1 Primary Data

This information or data will be collected by a researcher herself from the field. Observation, focused group discussion, questionnaires and interviews were common research tools used to collect data from the field.

3.6.2 Secondary Data

This is data collected by other people. This is also known as secondhand information; secondary data includes both raw data and published data. The secondary data will be obtained through notes, correspondence and minutes of meetings, project plan journals.

3.7 Data Collection methods

Data collection refers to the gathering specific information necessary in the research process, this will be done because data are capable to communicate the problem to the researcher, for providing or reputing some facts. Therefore, there are different methods that were used in the collection of data, these include.

3.7.1 Observation

Here the researcher will use the naked eye to observe what's going on in the field. According to the seismic surveys of 1998 and 2001 in the Semliki Basin confirmed earlier observations and properly defined structures and revealed the complexity of the geology of that area and possibly of the whole Graben. (Hansen 2007) observed about the Albertine Rift valley (AR), that with an expanding human Population in western Uganda, the integrity of these areas is increasingly threatened. Forests are being destroyed and wildlife populations are intensively hunted for bush meat. These threats are particularly acute in the central part of the AR along the escarpment areas adjacent to Lake Albert. In recent years the increasing petroleum exploration activities in the AR has added another challenge concerning conservation of biodiversity and landscape in the region (Hansen 2007).

3.7.2 Questionnaire

In questionnaire the respondents were required to provide answers to questions given to them and the researcher collected Questionnaires that had been completed information. In this study the researcher designed questionnaires regarding the topic of study. Closed ended and open-ended questionnaires were used to collect information for this study.

3.7.3 Interviewing

Various interviews will be held with the concerned individual to tell us about how oil and gas exploration is impacting on the tourism industry in the Albertine region where the exploration activities are taking place.

A guiding tool questionnaire will be used in the process of interviewing and capturing or recording data.

3.7.4 Document Review

This will involve reviewing another author's related literature. Here the research will use more of available literature on the Albertine Graben

3.8 Data processing

The data collected will be put in systematic way that will include correcting, coding and storing for further analysis. This will be an easy way of assembling the collected data for further analysis of the findings of the study. SPSS data tool will mainly be used to analyze the data.

3.9 Limitations

The limitations that are anticipated to hinder data collection include.

- Limited budgeted funds to carry out the research.
- Poor roads to the research sites.
- Language barrier since most of the targeted population locals in the mentioned districts are illiterate.

3.10 Ethical Consideration

This research will be conducted with a lot of ethical consideration, and he will obtain an introductory letter from the university. This will make the respondents trust in the researcher as a student to smoothly go on with his research.

3.11 Data analysis

Data will be analyzed using frequency distributions displaying the frequency tables of oil and gas exploration development impacting on tourism in the Albertine Graben. It will mainly be analyzed using SPSS Statistical package of Social Sciences, the most used application for data analysis.

4 CHAPTER FOUR; PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents, discusses and interprets the study findings from the raw data got from the field while assessing the impacts of oil and gas exploration on tourism in Uganda.

4.2 Response rate

The sample size under consideration was 90 respondents and fortunately the researcher did not report any invalid response or questionnaire, Therefore, the response rate was 100% as expected making the findings valid.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	35	38.9	38.9	38.9
	Male	55	61.1	61.1	100.0
	Total	90	100.0	100.0	

Figure 1 Table Gender

According to results presented in the table above, the biggest percentage of the respondents reached out to during the study represented by 61.1% of males, whereas 38.9% of the

respondents' represented females. This implies that male respondents actively participated in the study if the researcher was not gender biased. It can also mean that the males are actively following and participating the activities of oil and gas exploration and tourism compared females in the Albertine region.

Age bracket					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 & below	3	3.3	3.3	3.3
	20-29 years	10	11.1	11.1	14.4
	30-39 years	41	45.6	45.6	60.0
	40-49 years	26	28.9	28.9	88.9
	50 years & above	10	11.1	11.1	100.0
	Total	90	100.0	100.0	

Figure 2 Table of age brackets.

The study results tabulated above indicates that 45.6% of the respondents was the highest percentage age bracket of respondents falling between 30-39 years, followed by 28.9% of those between 40-49 years, both the respondents between 20-29 years and 50 years & above rated at 11.1% each age category. It is only 3.3% of the total respondents that represented those at 19 & below. This is any indication that the study results are highly reliable since most of respondents were mature, and the assumptions are that they provide genuine information.

Education level					
		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Masters	3	3.3	3.3	3.3
	Degree	10	11.1	11.1	14.4
	Diploma	48	53.3	53.3	67.8
	Certificate	26	28.9	28.9	96.7
	Secondary & below	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

Figure 3 Table of Education level.

This study chose without targeting their level of education, however the results indicated different academic levels where different respondents provided information based on their different way of understanding. The researcher found out that 53.3% of the respondents had attained a diploma level and they ranked the highest number of respondents followed by those at a certificated level rated at 28.9%, 11.1% for those holding a degree and finally both those with master's and secondary & below at 3.3% each. This could indicate that since the highest number of respondents were educated, they were well informed in providing relevant information on the impact of oil and gas exploration on tourism in the Albertine region.

Residence Period					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2 years	11	12.2	12.2	12.2
	3-4 years	36	40.0	40.0	52.2
	5-6 years	35	38.9	38.9	91.1
	7-8 years	3	3.3	3.3	94.4
	9-10 years	2	2.2	2.2	96.7
	Above 10 years	3	3.3	3.3	100.0

Total	90	100.0	100.0
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Figure 4 Residence period.

From the above table, majority of the study respondents of about 40% had spent a period between 3-4 years in this region, followed by 38% that had spent 6-7 years indicating that the biggest percentage of our respondents had spent at least a half a decade in the area, and this can justify that they are fully updated with all both the oil and gas exploration activities as well as tourism. Both 7-8 years and those above 10 years were represented by 3.3% each of the total respondents and 2.2% representing those between 9-10 years creating an assumption that all these three categories of respondents above 7 years could be the natives of the region and those below are the employees and including the 12.2% of those less than a year to be business categories who are temporary in the Albertine region

However, this does not conclusively confirm the above analysis though it justifies that the study results are reliable based on the time frame of the respondents in the Albertine region.

4.3 The threats and opportunities of exploration activities

This section identified the threats and opportunities of oil and gas exploration to tourism in the Albertine region. They were identified and measured using values and as presented in tabulator form as you read below.

4.3.1 Opportunities of oil and gas exploration activities on Tourism

Road network improvement to access the tourism sites easily					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	43	47.8	47.8	47.8
	Agree	43	47.8	47.8	95.6
	Not sure	3	3.3	3.3	98.9

Disagree	1	1.1	1.1	100.0
Total	90	100.0	100.0	

Figure 5 Table of results on Road network improvement.

The study results presented road network improvement as an opportunity because of the oil and gas exploration activities taking place in the Albertine region. Based on these results, we see about 95.6% of the population in the Albertine region affirm to this opportunity by agreeing and strongly agreeing to it. It is only 1.1% of the respondents that disagree with this opportunity and 3.3% that are not sure, making a total of 4.4% that are either negative or positive with the opportunity which creates an assumption that why either did not want to offer time to the respondent or are not updated of the of what is going on in the region in the two sectors.

Oil & Gas exploration and development generates revenue that can be invested in tourism					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	50	55.6	55.6	55.6
	Agree	28	31.1	31.1	86.7
	Not sure	6	6.7	6.7	93.3
	Disagree	4	4.4	4.4	97.8
	Strongly disagree	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Figure 6 Table of results on generated revenue that can be invested in tourism.

The study results present about 55.6% of the people living in the Albertine region strongly agree with the opportunity that the oil and gas exploration and development generates revenue which can be invested in tourism sector followed by 31.1% agreeing totaling to 86.7% affirming to this

opportunity. It is only a total of 13.3% of the respondents that are either not sure, disagree or strongly disagree with this opportunity.

This percentage that does not see this opportunity is assumed that are either assumed to be those trusting in the way the government handles/ spend its revenue, are not updated of what positive impact the oil and gas exploration can have to tourism and or did not was to provide information as required but the researcher.

Construction of improved hotels to accommodate/ support the tourism sector					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	40	44.4	44.4	44.4
	Agree	39	43.3	43.3	87.8
	Not sure	3	3.3	3.3	91.1
	Disagree	3	3.3	3.3	94.4
	Strongly disagree	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Figure 7 Table of results on improved hotels to accommodate.

One of the most essential requirements of the tourists is accommodation. This study provides us with an opportunity that oil and gas exploration and development leads to the construction of hotels that can at the same time support the exploration activities and the tourism sector. About 87.7% affirm this by agreeing and strongly agreeing to this opportunity though it also presented about 12.2% of the total respondents not sure, disagree and strongly disagree. Those not agreeing to this are either from remote places and do not see these hotel structures constructed as result of oil and gas exploration and development, do not support either of the sector and or are not interested in whatever comes.

4.3.2 Threats of oil and gas exploration activities on Tourism

Dangerous gas and fumes emitted to the atmosphere affects tourism activities					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	37	41.1	41.1	41.1
	Agree	50	55.6	55.6	96.7
	Not sure	2	2.2	2.2	98.9
	Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Figure 8 table of results on Dangerous gas and fumes emitted.

Tourism activities include bird watching, nature walks, chimpanzee trekking, cycling among others and these cannot be smoothly carried once there is a threat of dangerous fumes exposed to the environment. Focusing on the tabulated results presented in the figure above, about 96.7% affirm to this threat of dangerous fumes emitted to the atmosphere and affect Tourism activities hence hindering tourism attractions or lead to health implications to tourist. Only 3.3% of the population in the Albertine region are either not sure or disagree with the emission of dangerous fumes.

Open unprotected pits possess threats trapping wild animals and lead them death that limits tourists' attractions					
		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly agree	33	36.7	36.7	36.7
	Agree	22	24.4	24.4	61.1
	Not sure	19	21.1	21.1	82.2
	Disagree	10	11.1	11.1	93.3
	Strongly disagree	6	6.7	6.7	100.0
	Total	90	100.0	100.0	

Figure 9 Table of results on Open unprotected pits.

Just like it was discussed in chapter two of this very report, the Albertine region is well known for its richness of various species of wildlife. The drilling of oil and gas includes conventional and unconventional methods which all involves the digging of holes that may act as trap of wild animals and lead to death yet it’s one of the main attractions in the Albertine regions. Results in the table above presents that about 61.1% of the respondents affirm to the threat that will trap wild animals and lead to their death. However, about 40% of the respondents are either not sure, disagree or strongly disagree with this threat. This could either mean that they are not well informed about the oil and gas activities, think or be informed of the protective solutions against the threat and or do not want to be honest to the researcher.

Oil spill on site would result into destroying wildlife and trigger restrictions to free tourism activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	20	22.2	22.2	22.2
	Agree	48	53.3	53.3	75.6
	Not sure	6	6.7	6.7	82.2
	Disagree	11	12.2	12.2	94.4

Strongly disagree	5	5.6	5.6	100.0
Total	90	100.0	100.0	

Figure 10 Table on results on Oil spill on site.

Most of the oil and gas activities are hazardous and this is most likely to trigger restrictions on free movements of tourists in the Albertine region. Already, the results tabulated above present 22.2% of the respondents strongly agreeing and 53.3% agreeing hence making an affirmation total of 75.5%, 6.7% are not sure, 12.2% disagree with the threat and 5.6% completely or strongly disagree with the threat. The summation total of the respondents either doubting, disagreeing and strongly disagreeing is 24.5% which create an assumption that they know the measures against threat, are not informed about the oil and gas exploration activities or did not want to genuinely provide the information to the researcher.

4.4 The assessment to the protection measures towards the hotspot areas in the Albertine region

Drilling wastewater is treated and reused					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	12.2	12.2	12.2
	Agree	25	27.8	27.8	40.0
	Not sure	27	30.0	30.0	70.0
	Disagree	22	24.4	24.4	94.4
	Strongly disagree	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Figure 11 Table of results on drilled water treated and reused.

The treatment and re-usage of wastewater is one of the key measures to the protection of the hotspot areas in the Albertine region. Based on the study results, many respondents did not affirm to this protection measure towards the hotshot areas or biodiversity sensitive areas on the region.

Only 40% of the people in the region affirmed to it protection measure and by assumption these could be the same people working in the oil and gas industry with knowledge on how this method works or those that have read and understood the industry operates.

It is a bit surprising that about 30% of the respondents are not sure, 24.4% disagreeing with it and 5.6% strongly disagreeing with it. This implied that about 60% of the respondents are either not affirming to the protection measure or not sure of it. This could mean that this protective measure is more technical than everyone could affirm with it.

Regular monitoring and surveillance of oil activities is done to see their impact on tourism sites and wildlife					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	44	48.9	48.9	48.9
	Agree	38	42.2	42.2	91.1
	Not sure	4	4.4	4.4	95.6
	Disagree	2	2.2	2.2	97.8
	Strongly disagree	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Figure 12 Table of results on Regular monitoring and surveillance.

Just like any other safe sensitive company, monitoring and surveillance in the oil and gas industry is key and any negligence of it could lead to harm. This study results confirmed with

this protection measure with about 91.1% towards the hotspot areas in the Albertine region. This is an indication and affirmation that most people in this region have seen this happen which adds credit to the oil and gas companies in the Albertine region.

Only 4.4% of the respondents are not sure and both those disagreeing and strongly disagreeing were represented by 2.2% each making a summation of 6.6% of those not either sure or not affirming to the protection measure. These not affirming to the measure are perhaps members of the community that do not have enough knowledge on relating the two sectors and protection of wildlife.

Beyond doubt, the study results prove that there is thorough regular monitoring and surveillance of oil activities done to see their impact on tourism sites and wildlife.

Protected areas are established, and Oil and gas activities are prohibited from taking place there					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	27	30.0	30.0	30.0
	Agree	54	60.0	60.0	90.0
	Not sure	9	10.0	10.0	100.0
	Total	90	100.0	100.0	

Figure 13 Table of results on Protected areas established.

As brief as it is presented in the table above, the established protected areas are safely preserved, and the oil & gas exploration activities are prohibited from taking place close to them.

The study affirms 90% of the respondents agree and strongly agree to this protective measure to save the hotspot areas which are tourist attraction sites. Only 10% of the respondents are not sure or did not like to show their side about this measure towards the protection of the hotspot areas in this case study.

Therefore, the study results confirm that the protected established areas are out of bound of the oil and gas exploration activities.

Environmental Impact assessment is conducted before any Oil and Gas activity commences					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	37	41.1	41.1	41.1
	Agree	48	53.3	53.3	94.4
	Not sure	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Figure 14 Table of results on EIA.

Similarly, like the previous protective measure EIA environment impact assessment is conducted before any oil and gas activity is conducted in this area.

According to the study results, 95.4% of the respondents affirmed that this protective measure (EIA) is prioritized in the Albertine region before any oil and gas activity is conducted and only 5.6% of the respondents did not want to show their side towards this protective measure towards the hotspot areas in the Albertine region where the oil and gas activities are conducted.

4.5 The relevance of the oil and gas industry to the tourism

Oil and gas infrastructure developments are used by tourism by improving accessibility					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	36	40.0	40.0	40.0
	Agree	40	44.4	44.4	84.4
	Not sure	4	4.4	4.4	88.9

Disagree	6	6.7	6.7	95.6
Strongly disagree	4	4.4	4.4	100.0
Total	90	100.0	100.0	

Figure 15 Table of results on Oil and gas infrastructure developments.

From the previous discussions about the opportunities of the oil and gas exploration study activities taking place in the Albertine region, results presented road network improvement to about 95.6% of the population in the affirming to this opportunity by agreeing and strongly agreeing.

In one of the most essential requirements of the tourists is accommodation and, in this study, provides us with about 87.7% affirm to this by agreeing and strongly agreeing it.

While analyzing the relevance of the oil and gas industry to the tourism sector in the Albertine region, the table above presented that oil and gas infrastructure developments being used by tourism sector in about 88.4% of the respondents affirming to this hence this becoming relevant to tourism. Only 4.4 % of the respondents did not show their side, 6.7% disagreed and only 4.4% strongly disagreed with the oil and gas infrastructures being useful to the tourism sector. There're possibilities that these those not affirming to this are either not informed, have not seen this relevant and or they are not feeling concerned.

Oil & gas stimulates economic growth, leading to increased spending power among locals which boosts people spend on travel and leisure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	29	32.2	32.2	32.2
Agree	45	50.0	50.0	82.2
Not sure	9	10.0	10.0	92.2
Disagree	5	5.6	5.6	97.8

Strongly disagree	2	2.2	2.2	100.0
Total	90	100.0	100.0	

Figure 16 Table of results on stimulation of economic growth.

Oil and gas exploration is fully believed to stimulate economic growth that will increase the spending power among locals leading to spending on travel and leisure. It was confirmed by the study after 82.2% of the respondents affirmed the industry’s relevance to the tourism sector. It’s only 10% of the respondents that were not willing to give their side regarding the oil and gas industry stimulating the economic growth and wellbeing of the people that will lead them to spending on leisure and travel and hence tourism. Therefore, this study affirms the economic growth stimulating the spending buy the locals as being attained due to the relevancy of the oil and gas activities in the Albertine region.

The improved standards of living because of oil and gas exploration hence the demand for tourism services					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	22	24.4	24.4	24.4
	Agree	45	50.0	50.0	74.4
	Not sure	12	13.3	13.3	87.8
	Disagree	6	6.7	6.7	94.4
	Strongly disagree	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Figure 17 Table of results on improved standards of living.

The improved standards of living are believed to be generated by the oil and gas activities which stimulates high demand of urban services that favors the tourism sector. Tourists are rarely attracted to the vulnerable communities without reliable services. However, the study confirms that about 74.4% of the respondents affirm to this point that standards of living are improved stimulating urban services hence improving the demand of tourism in the Albertine region.

It's about 13.3% of the respondents that are not sure and are not willing to show side regarding point, 6.7% disagree and 5.6% of the respondents strongly disagree that the oil and gas exploration activities have not improved the standards of living of the people of the Albertine region which later stimulates demand for tourism.

4.6 Activities captured by observation.



Figure 18 photo showing Oil & Gas exploration activities.

The activities observed and captured on camera are some of the oil and gas exploration and development activities taking place in the Albertine region. These activities have impacted nature particularly plants, animals and soil structure. Holes made for the oil pipeline were seen as threats to animals since they act as traps. Similarly, the welding activities of the pipeline generate a lot of noise making wild animals run away from their comfort areas. As shown in the picture above, the soil structure is tempered with, and some fauna species are hindered.

5 CHAPTER FIVE; SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter gives the summary of the main findings of the study and recommendations, conclusion of the study.

5.2 Summary of Findings

Based on the findings of this study regarding the impact of oil and gas on tourism in the Albertine regions revealed and a lot of statistical results presented, tabulated and discussed in the previous chapter identified several opportunities, threats, protection measures and the relevance of Oil and gas to tourism sector.

5.2.1 Summary of the findings on the threats and opportunities of exploration activities

The opportunities involved Road network improvement to access the tourism sites easily, generation of revenue that can be invested in tourism, Construction of improved hotels to accommodate/ support the tourism sector that were averagely affirmed up to 90% by the

respondents hence oil and gas exploration supporting the growth of tourism and on long run the impacts keep on escalating positively.

However, threats are also identified in the study that include Dangerous gas and fumes emitted to the atmosphere affects tourism activities, unprotected open pits trapping wild animals and lead them death that limits tourist's attractions and oil spill on site results into destroying wildlife and trigger restrictions to free tourism activities. According to the study results, the overall threats were averagely affirmed at rate of 77.6% of the total respondents meaning amidst of the opportunities, there threats that need to be addressed.

5.2.2 Summary of the findings on the protection measures of the hotspot areas.

Some protection measures were also assessed including drilling waste water is being treated and reused, regular monitoring and surveillance of oil activities to see their impact on tourism sites and wildlife and also established protected areas where oil and gas activities are prohibited taking place, conducting Environmental Impact assessment before any Oil and Gas activity commences and the average rate at which they were accessed was at 79.1% affirmed effectiveness of the protection measures towards the hotspot areas in the Albertine region.

5.2.3 Summary of the findings on the relevance of exploration activities to tourism

Generally, Oil and gas exploration has become more relevant to tourism sector in various ways that were analyzed in this study including; Oil and gas infrastructure developments used by tourism by improving accessibility to the attraction sites, stimulating economic growth, leading to increased spending power among locals which boosts as people send on travel and leisure and also improved standards of living as a result of oil and gas exploration which stimulates the demand for tourism services among others that were affirmed up to 81.4% according to the community response.

5.3 Recommendations

Therefore, according to the findings, I recommend the following:

The oil exploration companies should seriously put into consideration the impact of mitigation and development framework on their activities that have affected the tourism sector as well as a social management plan to make those animals and the environment that have been impacted by their activities be clearly compensated.

For positive and satisfactory influence of oil activities among communities in the Albertine region and all major stakeholders should embark on expressive permission in form of sustainable employment, hands on skills, funded by these sectors for the better growth of the community members.

I recommend the concerned authority i.e. Department of Petroleum Exploration, Production and Development (PEPD) to effectively perform its supervisory role of monitoring and controlling the activities of the petroleum exploration and production including, enforcement of the implementation of the Corporate Social Responsibility and the Global Memorandum of Understanding signed by both the petroleum exploration and production Multinationals and their host communities.

5.4 Conclusion

Oil and gas is associated with a lot of benefits than the negative impacts to the tourism sector in the Albertine region, the stakeholders of the two sectors should look for a way to handle the negative effects of oil and gas exploration activities on tourism like putting fines and penalties to those parties who violate the rules and regulations that would be put in place by authorities so that the people of this region can benefit from both the oil & gas and the tourism sectors. The oil companies should find better ways of undertaking the drilling activities without disturbing the animals/ biodiversity in place. The tourists' attractions must be carefully safe guarded because oil resources are to be exhausted since it's volatile while tourism can stay for decades without being depleted.

APPENDICES

Questionnaire

Introduction.

Dear respondent,

My name is Akambamu Trevor Godfrey; I am a third-year student from the Institute of Petroleum Studies- Kampala, an affiliation of Uganda Christian University, conducting an academic study assessing the impact of oil and gas exploration on tourism in Uganda and I am seeking information on that. You have been selected as a suitable respondent in this study based on your expertise in this area and portfolio. Your participation is voluntary and the information you will provide will be highly confidential. I take this opportunity to thank you for agreeing to participate in this brief interview.

SECTION A: BIO DATA.

(Tick the most appropriate)

1. Gender.

Female	
Male.	

2. Age bracket (years).

19 &below w	20- 29	30-39	40-49	50 & above

3. Highest level of education.

Masters	
Degree	
Diploma	
Certificate	
Secondary & below	

4. How long have you lived or worked in this region?

Less than 2 years	3-4 years	5-6 years	7-8 years	9-10 years.	Above 10 years

5. Marital status: Single Married Widow Widower

PART B: WHAT ARE THE THREATS AND OPPORTUNITIES OF EXPLORATION ACTIVITIES TO TOURISM IN THE ALBERTINE REGION?

(Tick the most appropriate)

Strongly agree	agree	Not sure	Disagree	Strongly disagree
1	2	3	4	5

	OPPORTUNITIES	1	2	3	4	5
1	Road network improvement to access the tourism sites easily					
2	Oil & Gas exploration and development generates revenue that can be invested in tourism.					
3	Construction of improved hotels to accommodate/ support the tourism sector					
	THREATS					
1	Dangerous gas and fumes emitted to the atmosphere affects tourism activities.					
2	Open unprotected pits possess threats trapping wild animals and lead them death that limits tourists' attractions					
3	Oil spill on site would result into destroying wildlife and trigger restrictions to free tourism activities.					

PART C: WHAT PROTECTION MEASURES HAVE BEEN EFFECTED TOWARDS THE HOTSPOT AREAS IN THE ALBERTINE REGION?

(Tick the most appropriate)

Strongly agree	agree	Not sure	Disagree	Strongly disagree
1	2	3	4	5

	1	2	3	4	5

1	The drilling wastewater is treated and reused					
2	Regular monitoring and surveillance oil activities is done regularly to see their impact on tourism sites and wildlife.					
3	Protected areas are established, and oil and gas activities are prohibited taking place there.					
4	Environmental Impact assessment is conducted before any Oil and Gas activity commences.					

PART C: WHAT IS THE RELEVANCE OF THE OIL AND GAS INDUSTRY TO THE TOURISM SECTOR IN THE ALBERTINE REGION?

(Tick the most appropriate)

Strongly agree	agree	Not sure	Disagree	Strongly disagree
1	2	3	4	5

		1	2	3	4	5
1	Oil and gas infrastructure developments are used by tourism to improve accessibility.					
2	Oil & gas stimulates economic growth, leading to increased spending power among locals which boosts as people send on travel and leisure					

3	The improved standards of living because of oil and gas also increases the demand for tourism services					
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THANK YOU FOR YOUR TIME

REFERENCES

Bahati, G. & Natukunda J.F. (2009). Status of geothermal exploration and Development in Uganda Presented at Short Course IV on Exploration for Geothermal Resources, organized by UNU-GTP, Ken Gen and GDC, at Lake Naivasha, Kenya.

Bernard, H. R. (2011). Research Methods in Anthropology. Qualitative and quantitative Approaches: 5th ed. Rowman Altamira.

Robert, M.K. (2011). The effects of oil and gas exploration in the Albertine region on biodiversity. Final report, Nature Uganda, Kampala.

Electric Power Development Co., Ltd. & Nippon Koei Co., Ltd. (2010). Project for Master Plan Study on Hydropower Development in the Republic of Uganda. Draft final report Japan International Cooperation Agency Ministry of Energy and Mineral Development, Kampala, Uganda.

Faulkner, B. (2001). Towards a framework for tourism disaster management. Griffith University, Southport, Australia.

Francis, M. & Solomon, S. (June 2012). Reviewing Uganda 's Tourism Sector for Economic and Social Upgrading. Research Series No. 91. Economic Policy Research Center (EPRC), Makerere University

Hansen, J.P. H. (2007). Report - Visit to Oil Exploration Fields in Northwest Uganda November 20th – 22nd 2007 - With a special emphasis on Kabwoya Wildlife Reserve and Kaiso -Tonya Community Wildlife Area at Lake Albert -Norwegian Directorate for Nature Management.

Hsieh, Hsiu-Fang, & Sarah, E. Shannon. (2005). Three approaches to qualitative content analysis. *Qualitative health research* 15, no. 9: 1277-1288.

[Http://www.tulloil.com/index.asp?pageid=282](http://www.tulloil.com/index.asp?pageid=282)

Imaka, I. & Musisi, F. (2013). Oil drilling in Murchison delta and the blurred future of wildlife and tourism. *The Daily Monitor* 10th April, Kampala.

International Alert. (2011). Oil and Gas Laws in Uganda: A Legislators' Guide. Oil Discussion Paper No. 1 May 2011. Parliament, Uganda.

IUCN. (2010). IUCN Red List of Threatened Species. Version 2010.4. <www.iucnredlist.org>. Downloaded on 30 May 2011.

IUCN Red Data Book Lists. The latest database is available from www.iucn.org.

Kabanda, M. (2012). An overview of Uganda's oil and gas sector. Ministry of Energy and Mineral development: Petroleum Exploration and Production Department. Entebbe, Uganda.

Kashambuzi, R. & Mugisha, F. (2003). Exploration history and petroleum potential of Uganda. Petroleum Exploration and Production Department, Ministry of Energy and Mineral Development Republic of Uganda.

Kennedy, C. (2011). Uganda's Oil Potential Arouses international interest. <http://oilprice.com/Latest-Energy-News/World-News/Ugandas-Oil-Potential-Arouses-International-Interest.html>.

Marija, J. (1986). *The SPSS/PC+ Guide to Data Analysis*. Chicago.

Millennium Ecosystem Assessment. (2005). *Ecosystems and Human Well-being: Biodiversity Synthesis*. World Resources Institute, Washington, DC.

Ministry of finance, planning and economic development. (2012). *The background to the budget 2012/13 Fiscal Year*, Kampala, Uganda.

Morrison, R. Samson, M. Amos, W. (2014). *Tourism in Uganda's oil economy: Deal or No Deal*. Agency for transformation, Kampala.

National Environment Management Authority. (2009). *Environmental Sensitivity Atlas for the Albertine Graben*. Kampala Uganda.

National Environment Management Authority. (2008). *State of environment report for Uganda*.

Neil, F. (1987). *SPSS/PC+ Introductory Guide*.

Nugent, C. (2009). Review of environmental impact assessment and monitoring in aquaculture in Africa. In FAO. *Environmental impact assessment and monitoring in aquaculture*. FAO Fisheries and Aquaculture Technical Paper. No. 527. Rome, FAO. pp. 59–151.

Pforr, C. (2009). *Crisis Management in Tourism, a review of the emergent literature*. Curtin University Australia.

Plumptre, A.J et al. (2003). *The biodiversity of the Albertine Rift*. Wildlife Conservation Society (WCS), Kampala, Uganda.

Plumptre, A. Davenport, T. Behangana, M. Kityo, R. Eilu, G. Ssegawa, P. Ewango, C. & Kahindo, C. (2004). *Albertine Rift in Hotspots Revisited – Earth's biologically Richest and Most Endangered Terrestrial Eco regions* (Eds Mittermeier R.A.et al.).

Ritchie, B. W. (2004). *Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry*. University of Canberra, Australia.

Uganda Bureau of Statistics. (2011). Sector Statistical Abstract by the Ministry of Tourism, Trade and Industry, Kampala.

Uganda Bureau of Statistics. (2012). Statistical Abstract Statistics Appendix Table 3.8 L. Kampala, Uganda.

Uganda Wildlife Authority. (2001). Murchison Falls protected area general management plan 2001-2011, Kampala.

DAVID KINGHAM, F. (2021, July 9th). 7 ways oil and gas drilling is bad for the environment. *The Wilderness Society*.

PORTILLA, N. (2022). What oil and gas companies are doing to promote sustainability. *PLANT ENGINEERING*.

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