

**IMPACTS OF SHORT-TERM OIL AND GAS UPSTREAM ACTIVITIES ON THE  
WELFARE OF PEOPLE IN BULIISA DISTRICT**

**BY**

**MUGISHA MOSES**

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## **DECLARATION**

I declare that I am the author of this paper and that any assistance I received in its preparation is fully acknowledged and disclosed in the paper. I have also cited any sources, from which I used data, ideas or words, either quoted directly or paraphrased. I also certify that this paper was prepared by me specifically for the partial fulfillment for Master of Business Administration in Oil and Gas Management at Uganda Christian University.

Signature .....

**Mugisha Moses**

**Principal Investigator**

**APPROVAL**

This research report has been submitted for approval with my consent as a University Supervisor.

Signature ..... Date

.....

Supervisors Name

## **DEDICATION**

This piece of work is dedicated to my mother Teddy Tezikya, wife Gera Kirunda my children Emmanuel, Teddy, Samuel and Noah for the support they have given me both spiritually, physically to see me go through this research process. It would not have been easy without them and I can now say my career education has been a success because of them. May God continue rewarding them abundantly.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

CA:	Canada
CAO:	Chief Administrative officer
LC:	Local Council
NESAQ:	National Environmental Standards for Air Quality
PAHs:	Levels of Poly-Aromatic Hydrocarbons
SPSS:	Statistical Package for Social Sciences
UK:	United Kingdom
US:	United States

## **ABSTRACT**

This study was carried out to find out the impacts of short-term oil and gas upstream activities on the welfare of the residents in Buliisa District. The study was carried out to achieve the 3 specific objectives which were; to assess the socio-economic status, to determine the effects of oil and gas exploration and drilling on the welfare of the local communities and to explore the measures put in place by the responsible bodies to reduce on the negative impacts of oil and gas activities in Buliisa District.

A descriptive research design was employed involving both quantitative and qualitative methods. The study involved 123 local community members, 2 oil company representatives, 11 leaders and 7 district officials. Questionnaires were used to collect data from local community members and interview guides were used to collect qualitative data. Simple random and purposive sampling techniques were employed. Data analysis for quantitative data was by use of SPSS version 20 and qualitative data was thematically analyzed.

Results from the study revealed that Most of the people in Buliisa are involved in businesses, farming and fishing and are of low economic status. 60.98% had not seen any benefit from these activities taking place in their areas. Some benefits highlighted were in terms of construction of good roads, employment and jobs, compensation from the government, increment in income and attainment of scholarships. Negative impacts were environmental degradation, increased cases of land grabbing, pollution, and decline in crop yields, high costs of living.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Research Problem

Globally, oil and gas exploration has been dynamic and has been influenced by many factors such as geo-political situations, technology change, price changes, market price conditions and the macro economics<sup>1</sup>. The demand for oil and gas will continue to rise and this will mainly come from the transport industry since it's a necessity for the transport sector (Mugisa, 2016).

In Africa, foreign direct investment has been reported to be on increase, but the region still lags as compared to developing economies. Africa has also managed to attract many multinational companies because of the vast number of resources and these resources are mainly in Angola, Egypt, Nigeria and South Africa that is to say oil<sup>2</sup>. It has also been reported that oil in Africa has benefited only the elites, oil companies and all the shareholders and western industrialized countries (ACODE, 2006).

In Nigeria, oil provides 95% of its export earning which accounts for over 80% of government revenues with creation of a 40% Growth Domestic Product. The oil that has benefited the Nigerian economy mainly comes from the Delta region. It has generated economic and social transitioning of the country but this has also affected the Niger delta environment/surroundings creating many

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<sup>1</sup> Mugisa, S., NO, R., & Governance, I. (2016). Socio-economic effects of oil exploration among Hoima Municipality Communities, Uganda. *A dissertation submitted for a degree in Executive Master of Business Administration at the School of Business and Management, UTAMU*, 1-107

<sup>2</sup> Advocates Coalition for Development and Environment (2006). *Mainstreaming Environment and Natural Resources*

problems in the region such as poverty, deprivation, conflicts, occupational dislocation and ill health among the people (Amadi & Abdullah, 2012).

In East Africa, the oil and gas industry was reported to be a new industry compared to other regions such as the Gulf of Guinea where oil was produced since 1950s. Although some explorations were done earlier for example in Kenya by shell in 1960s and in Uganda in 1980s and these opened the new frontier for the last 10 years. Previously, companies were not making much effort to find the precious hydrocarbons in the region (Kashambuzi, 2010).

It's in the Western Region of Uganda that oil and gas was explored. The region has become known for being the most natural resources endowed area in the country. It is located along the Albertine graben where also marine resources can be found<sup>3</sup>(Annette, 2014). Activities along the Albertine graben have been reported to have an impact on the livelihood and welfare of the locals and the living animals in Buliisa District<sup>4</sup> (Environmental Justice Atlas, 2015).

Activities of oil and gas exploration and production are likely to have an impact on the welfare of the local people in Buliisa District. The oil and gas industry can impact positively on the welfare of the people living along the Albertine graben. It can provide jobs, better access to health care, roads and revenue generated from the oil and gas can be used to support and strengthen the economies of people in Buliisa district<sup>5</sup>(Ministry of Education & Sports, 2019). The investment of the sector in improving infrastructure, water access, waste treatment and better education can help to improve the welfare of people in Albertine communities.

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<sup>3</sup>AnnetKutesa (2014). Local communities and Oil Discoveries: A study in Uganda's Albertine graben Region

<sup>4</sup>Oil exploitation conflict in Buliisa District, Uganda, 2015. <https://ejatlas.org/conflict/land-acquisition-conflict-and-waste-dumping-in-buliisa-district>

<sup>5</sup> Ministry of Education. Albert region Sustainable development project. <http://www.education.go.ug/albertine-region-sustainable-development-project/>

In Uganda, Tullow oil has been committed to working with the local people and made it clear by contributing to social economic development and constructed Buliisa HC IV and Buliisa community resource center in order to strengthen health systems as well as generating awareness and understanding of health issues. The company has also constructed schools to boost the education sector<sup>6</sup>(The New Vision, 2012).

Oil and gas also comes with other supporting economic activities such as hotel and restaurant services, transport activities, road construction, telecommunication, and many more allied services<sup>7</sup>(Boohene & Peprah, 2012). Some of these facilities can also be accessible for use by the local people. The springing up of new hotels and restaurant services, for instance, can provide new fish markets and the construction of good roads provides easy access to market centers. The industry can however also impact negatively on the welfare of people if not well managed for example the case of land grabbing in Buliisa District, oil spills, potential fires and pollution may arise from the industry. Many people in the area have also been denied access to some points, inadequate compensation; prostitution; environmental degradation; annoyance and inconvenience<sup>8</sup>(Ogwang, Vanclay, & Assem, 2018). These factors can destabilize the welfare of the people.

## **1.2 Problem Statement**

Much has been written about the impact of oil, gas and other natural resources on the countries that produce them and this does not make for happy reading<sup>9</sup>(Heinrich, 2011).

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<sup>6</sup> The new vision (2012). Tullow Oil supports communities

<sup>7</sup> James Atta Peprah (2012). Correlates of Revenue among Small Scale Women Fish Processors in Coastal Ghana.

<sup>8</sup>TomOgwang, FrankVanclay, Arjanvan den Assem (2018). Impacts of the oil boom on the lives of people living in the Albertine Graben region of Uganda

<sup>9</sup>Challenges of a Resource Boom: Review of the Literature', Working Papers (2011)



Particularly, in Buliisa District, people have been displaced from their homes; jobs have been created but have been occupied by nonresidents and all these have an impact on the welfare of the locals (Ogwang et al., 2018). Conflicts have also been reported between the local people in Buliisa and the oil companies which have involved land grabbing<sup>10</sup> (Ogwang & Vanclay, 2019). The oil exploration is expected to improve the welfare of people but instead many negative consequences have already emerged<sup>11</sup>(Environmental Justice Atlas, 2015). Therefore, the oil and gas industry has brought both negative and positive impacts to the livelihood of the local communities in Buliisa District.

### **1.3.0 Purpose/General Objective**

The purpose of this study was to find out the impacts of short-term oil and gas upstream activities on the welfare of the locals in order to streamline processes that can help the local people in Buliisa District benefit from the oil and gas industry.

### **1.3.1 Specific Objective(s)**

1. To assess the socio-economic status of the people living in Buliisa District
2. To determine the effects of oil and gas upstream activities on the welfare of the local communities in Buliisa District?
3. To explore the measures put in place by the responsible bodies to reduce on the negative impacts of oil and gas activities in Buliisa District.

### **1.3.2 Research Questions**

1. What is the socio-economic status of the people living in Buliisa District?

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<sup>10</sup> Ogwang, T., & Vanclay, F. (2019). Social impacts of land acquisition for oil and gas development in Uganda. *Land*, 8(7), 109.

<sup>11</sup>Oil exploitation conflict in Buliisa District, Uganda, 2015. <https://ejatlas.org/conflict/land-acquisition-conflict-and-waste-dumping-in-buliisa-district>

2. What are the effects of oil and gas upstream activities on the welfare of the local communities in Buliisa District?
3. What measures have the responsible bodies put in place to reduce on the negative impacts of oil and gas activities in Buliisa District.

#### **1.4 Scope of the study**

This study was carried out to determine the impacts of short-term oil and gas upstream activities on the welfare of the local communities in Buliisa District. This highlighted the following sub variables; exploration, processing and drilling and other activities that are so far involved in the Uganda's oil processing stages so far.

The study was conducted among the communities in Buliisa District. It was conducted in the sub counties of Kigwera, Buliisa, Ngwedo and Buliisa Town Council which are areas with at least some form of oil and gas activities taking place in the area. This district is in western Uganda and was named so because the main town where the headquarters are located is Buliisa. The border districts are Pakwach in northwest, Masindi in the east, Hoima in the south, Nwoya in the north east and the Democratic republic of Congo in the west. It's in the district that during the last 20 years, where oil deposits were discovered. The district has been selected because they have vast number of oil wells in the area.

The study was conducted in December 2020 and involved some of the secondary data that is available since the oil exploration began up to date.

#### **1.5 Justification**

It was found out that Mputa and Waraga oil fields which are located in Buseruka in western part of Uganda along the Albertine graben and oil production is expected to have a maximum of about

12,000 barrels of oil produced daily. As oil production picks up, many people face multiple effects of the oil and gas activities. Good examples from South Sudan were there have been conflicts in fight for benefit from the oil. These show a clear negative impact of the oil and gas industry on welfare of locals<sup>12</sup>(Olasupo & Adekunle, 2017). In Sudan people have been displace and others killed. Similarly in Uganda, many people have been displaced from their land while others have remained not compensated<sup>13</sup>(Environmental Justice Atlas, 2015). This shows that the oil and gas upstream activities could have a big impact on the welfare of locals. Studies carried out along the Albert graben have only targeted the contribution of oil and gas exploration on the livelihood of local people. Therefore, this study was the first of a kind to determine the impact of oil and gas upstream activities on the welfare of local communities in Buliisa District.

### **1.6 Significance of the study**

This study explains the advantages of the oil sector and some of the ways in which oil activities can be managed efficiently. This study adds value to other researchers that have been conducted in the same industry and therefore, the findings that are generated are of help to policy makers and implementers in making policies that favor the environment and the communities in these resource rich areas.

This study also provides relevant information which acts as a future research material to researchers and academicians/students who are interested in looking at the impacts of oil and gas exploration on the welfare of the local communities.

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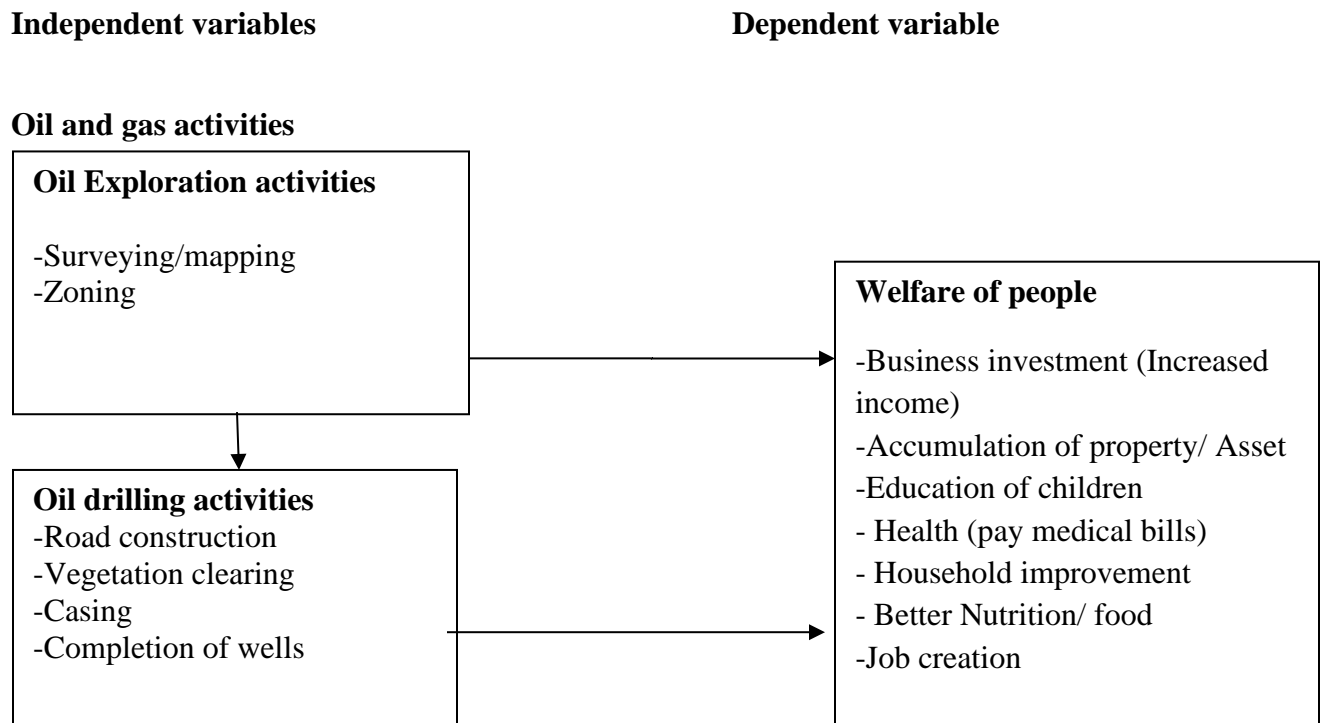
<sup>12</sup>MutiullahOlasupo, Solomon Benjamin Adekunle (2017). Oil and Conflict in Polarized State of South Sudan: Lesson for Biafra Agitators in Nigeria

<sup>13</sup>Environmental Justice Atlas. (2015). Oil exploitation conflict in Buliisa District, Uganda.  
<https://ejatlas.org/conflict/land-acquisition-conflict-and-waste-dumping-in-buliisa-district>

## 1.7 Conceptual Framework

This conceptual framework shows the link between the independent and dependent variables. The independent variable is oil and gas exploration activities and the dependent variable is welfare of people in Buliisa District.

**Figure 1. 1: Conceptual Framework**



*Source: Adapted from Mugisa (2016) and modified by the investigator*

Figure 1 above shows the link between the independent and the dependent variables. The independent variable has been divided into exploration activities; surveying, mapping and zoning, the drilling which involves road construction, vegetation clearing, casing, completion of wells and all these have had a great change on the welfare of the people in terms of creation of many businesses, accumulation of property/assets, education for the children, provision of better health care and facilities, household improvements, access to better nutrition/food and creation of jobs.

Oil activities involve exploration of wells and oil drilling<sup>14</sup> (Kraus, 2011). These have already yielded impacts on the welfare of the locals. These activities lead to Business investment (Increased income), accumulation of property/ Asset, education of children, Health (pay medical bills), Household improvement, Better Nutrition/ food and creation of jobs<sup>15</sup> (Langer, Ukiwo, & Mbabazi, 2019). Also in the United States, Oil and gas have yielded a biggest impact in employment of the local communities (Agerton, Hartley, Medlock III, & Temzelides, 2017).

### **Conclusion**

This chapter looked at the introduction, background, objectives, problem statement, research questions, and significance of the study, scope and conceptual framework of this study. This chapter provided the synopsis of the study and also stated the advantages of this study to other scholars, policy makers and the government.

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<sup>14</sup> Kraus, R. S. (2011). Exploration, drilling and production of oil and natural gas. Kraus RS, editor, 75.

<sup>15</sup> Langer, A., Ukiwo, U., & Mbabazi, P. (2019). Oil Wealth and Development in Uganda and Beyond: Prospects, Opportunities, and Challenges (p. 394). Leuven University Press.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter discussed the critical review of the issues that have arose and studied by other scholars both theoretically and empirically on the impact of oil and gas activities on the welfare of local communities. The literature includes both local and international or global studies that have been conducted in the oil industry. This literature looks at secondary data from other scholars such as reports, journals, newspapers, and other articles related to the topic under study.

#### **2.1 Effects of oil and gas upstream activities on the welfare of people**

There are both positive and negative effects of oil and gas activities. Therefore, this section highlights both scholarly materials showing the negative effects and the positive effects of oil and gas exploration.

##### **Positive effects**

A study done by Ogwang et al. (2018) along the Albertine graben to find out the effect of oil exploration on the livelihood of the local communities revealed that there are both negative and positive impacts that are associated with oil exploration and these were; job creation, development of infrastructure, displacement of people, in migration, food insecurity, land grabbing, environmental degradation and fear and anxiety among people<sup>16</sup>. Although Oil and Gas is a

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<sup>16</sup>Ogwang, T., Vanclay, F., & Assem, A. (2018). Impacts of the oil boom on the lives of people living in the Albertine Graben region of Uganda. *The Extractive Industries and Society*, 5. doi: 10.1016/j.exis.2017.12.015

resource that can create income among the nationals, it also creates some negative impacts on the livelihood of the local community members.

Byakagaba, Mugagga, and Nnakayima (2019) conducted a study on socio-economic and environmental implications of oil and gas exploration in Uganda and found out that oil and gas exploration had a direct link with construction of roads and increase in business ventures. Employment was also among the effects of oil and gas exploration and increased wage rate<sup>17</sup>. Oil and gas activities have been reported to lead to increased development and construction of infrastructure such as roads, railway in areas which the oil is explored. This is done to enable easy accessibility to the oil wells, easy transportation of materials for oil activities. In doing this, we can see roads being constructed and employment opportunities created.

The development of some communities in oil producing areas has been spear headed by the same oil companies. However, it's the mandate of the government to create employment opportunities for the communities. For example, in Uganda, Tullow oil emphasized the creation of shared responsibility in partnerships<sup>18</sup> (Tullow Oil, 2013). These have helped to create positive relationships with various stakeholders and have promoted economic contribution to development of local towns.

In Ghana<sup>19</sup>, the oil and gas discovery sparked high expectations for especially the people working in the fisheries industry. It was also perceived that oil and gas can provide jobs and that revenue

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<sup>17</sup>Byakagaba, P., Mugagga, F., &Nnakayima, D. (2019). The socio-economic and environmental implications of oil and gas exploration: Perspectives at the micro level in the Albertine region of Uganda. *The Extractive Industries and Society*, 6. doi: 10.1016/j.exis.2019.01.006

<sup>18</sup> Tullow Oil (2013). *Creating shared prosperity in partnerships*

<sup>19</sup>Egyir, I. K. (2012). *The Impacts of Oil and Gas Activities on Fisheries in the Western Region of Ghana*. Masters Thesis. Norwegian College of Fisheries Science. University of Tromsø

accrued from the oil and gas can also be used to support and strengthen the economies of fishing communities (Egyir, 2012). In the same country, as oil production started, fishermen and fish traders hoped that revenue from the production would compensate their deteriorating livelihoods by improving their quality of life. This hoped to be done through creation of employment opportunities. However, the oil and gas industry is capital intensive and not labor intensive<sup>20</sup>(Karl, 2007). Those who would be fortunate to gain employment must be highly skilled. Among the job opportunities that were created by the oil and gas industry in shama, about 4 out of 28 fishermen/traders were expecting employment from the industry.

A study done in the Taranaki region showed that there was enhancement of community relationships that were built through community support inform of groups and organizations that sponsor the locals and provide scholarship and investment programs for the local communities. These have had a positive impact for the Taranaki community. For example, there has been the construction of the raceway in Plymouth which was sponsored by Todd Energy. Similar contributions have been identified from companies from the oil and gas supply chain. In addition to their community investments, the oil and gas industry has made contributions in the education sector in the region<sup>21</sup>(Jane, 2020).

### **Negative impacts/effects**

In Shama, some negative effects of oil and gas activities were manifested. All the fishermen and fish traders interviewed emphasized the negative impact the oil and gas has had on their

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<sup>20</sup>Karl, T. L. (2007). Oil-led development: social, political, and economic consequences. *Encyclopedia of energy*, 4(8), 661-672.

<sup>21</sup> Jane Matthews (2020). New Plymouth's \$3.5 million new St John hub officially opened. <https://www.stuff.co.nz/taranaki-daily-news/news/300164825/new-plymouths-35-million-new-st-john-hub-officially-opened>



livelihoods. With the exploration and production of oil and gas, Safety Exclusion zones (‘nogo’ zones) were demarcated where fishermen had to be prohibited from fishing (BBC News, 2010). According to the officer at the Naval Base it was reported that 2 distinct exclusion zones were marked around each oil well. This disrupted the fishing activities of the fishermen in Ghana. This made the families of the fishermen to lack income to feed their families<sup>22</sup>.

The oil and gas drilling has many serious challenges it creates for the wild lands and the communities. The activities associated with oil drill disrupt wildlife, water sources, human health, environment and land and other recreational activities. The extraction of oil and gas is a problem to human beings as it creates loud noise, displacement of human beings, increased traffic and the constructions related to oil disrupt human activities such as fences and power lines<sup>23</sup>(David, 2019).

In the United States, there are about 1.3 million oil and gas facilities and it has been reported that over 12 million people who stay within a half a mile of these oil and gas facilities are exposed to both air and water pollution each day that passes, and this has been anticipated to lead to health issues. Oil and gas production has also been reported to be among the main air pollutants according to the UN<sup>24</sup>.

The exploration through to the development and production stages are associated with pressures which include sound (noise) from seismic operations, vessels and helicopter activities. Noise at certain levels is intolerant by some marine organisms and can interrupt with their functions within

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<sup>22</sup>BBC News (2010). Ghana Oil Begins Pumping for First Time. <https://www.bbc.com/news/world-africa-11996983>

<sup>23</sup> David Kingham (2019). 7 ways oil and gas drilling is bad for the environment.

<sup>24</sup> David Seibold (2019). Residents of Bakersfield, CA, know all too well the consequences of having fossil fuel extraction in their backyards

the ecosystem<sup>25</sup>. Richardson, Greene Jr, Malme, and Thomson (2013) Reported that structures in human ears and those of most marine mammals are sensitive to changes in sound pressure and that sound in coastal waters can interfere with the ability of marine mammals to detect calls from individuals of the same species, echolocation pulses or other important natural sounds<sup>26</sup>.

A study by Amoasah (2010) showed that oil spills that are generated as a result of oil activities have an impact on the water supply system as water quality is affected by oil spills. Not only do the spills affect water but also have led to the death of fish which is rich in proteins. Activities of oil always have some oil spills that normally run to the water bodies when it rains. These affect water born animals such as fish which is a source of income to people and source of food. Therefore, oil activities also disrupt economic activities for the local communities such as fishing.

Another study undertaken at a well-site by the Institute of Environmental Science and Research, (2008) showed that the levels of carbon monoxide, carbon dioxide and methane measured downwind of the well sites were safe at all measurement sites including those within 50 meters of the wells. Levels of suspended particulate matter in the size range that has the most serious impacts on respiratory health near the sites were compliant with the National Environmental Standards for Air Quality (NESAQ). Levels of Poly-Aromatic Hydrocarbons (PAHs), which epidemiological evidence have linked to the incidence of cancer (Kim, Jahan, Kabir, & Brown, 2013), were similar to background atmospheric levels 120 meters from the flare sites<sup>27</sup>.

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<sup>25</sup>Amoasah, G. (2010). The potential impacts of oil and gas exploration and production on the coastal zone of Ghana: An ecosystem services approach (Doctoral dissertation, Department of Environmental Sciences).

<sup>26</sup>Richardson, W. J., Greene Jr, C. R., Malme, C. I., & Thomson, D. H. (2013). Marine mammals and noise. Academic press.

<sup>27</sup>Kim, K. H., Jahan, S. A., Kabir, E., & Brown, R. J. (2013). A review of airborne polycyclic aromatic hydrocarbons (PAHs) and their human health effects. *Environment international*, 60, 71-80.

Another study done in 2016 by Mugisa, NO, and Governance (2016) in Uganda revealed that the main issues of community concern with respect to petroleum exploration were mainly noise, road damage and road safety, visual impact and more noise with the addition of excessive light at night, vibration, dust, and stock disturbance. Similarly, in one of the meetings held by residents in Tikorangi, heavy traffic, falling land values, noise and feelings of helplessness were mentioned by residents<sup>28</sup>. Many isolated noise cases were also reported and all these have led to the immigration of people/locals from their homes when construction is taking place (Bess, 2011).

Petroleum exploration and extraction has had a significant disruptive effect on the rights, culture and life of local indigenous peoples. Indigenous people like the New Zealand Māori, often have a special relationship with the land that involves their cultural and spiritual identity and does not align readily with planning and other regulatory processes. Indigenous people may have legally recognized ownership of territories beneath which oil and gas resources are located, or legal rights associated with the land that do not include ownership. In several countries, including New Zealand, land claims have yet to be fully resolved. In many countries, national and regional legislation requires the establishment of formal consultation processes with local indigenous people over petroleum and other resource developments.

Booth and Skelton (2011) clearly identified these differences. Agency staff had had extensive training in dealing with First Nations people but had little understanding of many of their concerns. They found communication with First Nations frustrating because agency timelines were not met, and communications were not “respectful. The First Nations were equally mystified by the agency approach of conducting environmental assessments and other processes isolation from each other,

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<sup>28</sup><http://www.nzta.govt.nz/planning/nltp-2012-2015/taranaki.html>

instead of considering all potential impacts in the holistic framework inherent in First Nations cultures.

Oil extraction, refinement and transportation activities undertaken in boreal forest regions in British Columbia have resulted in surface and near-subsurface soil contamination with Petroleum Hydrocarbons (PHCs) – crude and synthetic oil, gasoline, diesel and creosote. Across the oil and gas sector, it is estimated that >250,000 sites are contaminated by PHCs and associated activities such as oil extraction may potentially be resulting in excess brine or salt contamination (Princz et al., 2012).

In April 2010, Chevron Refinery in Burnaby, BC, found an accumulation of PHCs along a railway ditch and non-aqueous phase liquid (NAPL - petroleum hydrocarbons that remain undiluted in the subsurface environment) seeping onto a rocky beach (British Council Ministry of Environment, 2012). Chevron installed containment and absorbent booms and public awareness notices as well as an interception trench, which removed and absorbed oil and water accumulation daily. Remediation of the site was still taking place in March 2011 where a reactive barrier was installed to mitigate migration of NAPL into Burrard.

In 2005 the Medical Officer of Health in Northern British Columbia (BC)<sup>29</sup> reported that there was limited published information on social impacts of oil and gas developments in British Columbian communities, but that oil and gas development has the potential to result in both direct and indirect impacts on human health (Medd & Bush, 2007). These impacts include those that might be caused by emergencies or mishaps and those associated with normal operations including the impacts of

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<sup>29</sup>Medd, L and Bush, K. (2006). Population Health and Oil and Gas Activities. A Preliminary Assessment of the Situation in North Eastern BC. A Report from the Medical Health Officer to the Board of Northern Health.

chemicals, changes in air quality, and waste management. His investigation found that unscheduled visits to emergency rooms in the province had increased during peak oil and gas activity periods over the previous five years. In particular, injuries related to alcohol, drugs and violence increased during these periods. There was also anecdotal evidence of evictions of vulnerable tenants at times when local accommodation was insufficient to meet the demands of the industry.

Other studies such as the study by Ekop and Udotong (2004) on air quality precipitation and corrosion of Mbo Local Area of Nigeria showed that the concentration of carbon monoxide, methane and volatile organic compounds were above 0.01% and less than 0.01 ppm respectively, which is above the regulatory standards. The acidic PH value of rain water in the area indicated acid rain caused by oil and gas activities in general and gas flaring in particular. They further reported that the gas flare caused corrosion of zinc roofing sheets, contributed to low agricultural productivity, high mortality of aquatic animals, reduction in fishing and farming activities, socio-economic activities and ultimately impairment of human health, poverty, underdevelopment and bitterness amongst other effects<sup>30</sup>. This finding is consistent with the contention of Sommer et al. (2000) where it was posited that adverse health outcomes and impacts of environmental degradation included; direct effects of increase in road traffic accidents.

A corollary study by Sebastian and Hurting (2004) on the potential health impact of oil pollution on women living near oil fields, also observed that such women exhibit symptoms, such as skin mycosis, tiredness, itchy nose, sore throat, headaches, red eyes, ear pain, diarrhea, and risk of

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<sup>30</sup>Ekpo, O. B &Udotong. (2004). Air quality, precipitation and corrosion studies of Mbo L. G A. Nigeria. International Journal of Environmental Issues, 2, 33-47.

spontaneous abortion was high among these women<sup>31</sup>. Similarly, a higher incidence of cancer was discovered among males and females in areas where oil exploitation has been going on for at least 20 years. The report also stated that children were observed to have an increase in hematopoietic cancers while many children also had distended bellies and light hair (Tyonongo, 2008). These are evidences of kwashiorkor; a protein deficiency syndrome<sup>32</sup>.

## **2.2 Measure being put in place to reduce on the negative impacts of oil and gas activities**

A Study done in 2014 by Walter (2014) revealed a number of approaches that were employed to reduce on the impacts of oil and gas exploration activities. Several approaches were developed and used to minimize these impacts. Local authorities worked to develop uniform approaches to district planning and companies recognized that communication, consultation and consistency of compensation are vital to community acceptance. The voluntary land access code agreed by Federated Farmers which clarified company and community responsibilities was considered a significant advance<sup>33</sup>.

In Gisborne, there are five iwi that have registered their interest in district resource management, and there are likely to be differences amongst them in the issues that are of concern. Both First Nations and Taranaki Māori have reported that the consultation processes used have not always been inclusive, and the extent to which monitoring processes have been implemented has been variable. This is despite governments and agencies having a regulatory commitment to consult

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<sup>31</sup>Sebastian, M. S., & Hurting, A. K. (2004). Potential health impact of oil pollution on women living near oil fields. *Pan American Journal of Public Health*, 15(3), 205-211.

<sup>32</sup>Tyonongo, A. M. (2008). Economic implications of environmental degradation on the society. *International Journal of Economics and Development Issues*, 7(1), 33-38.

<sup>33</sup> Walter. (2015). *Natural Resources, Conflict, and Conflict Resolution: Un-covering the Mechanisms*. New York: Sage Publications.

with indigenous people over petroleum developments that affect traditional lands and rights<sup>34</sup>. The Waitangi Tribunal (2011) found that “local authorities that do not prioritize and resource Māori participation are least likely to meet the needs of stakeholders”, and that the quality and extent of Māori participation will depend on the nature of the processes employed.

### **Literature gap**

The literature above explains the impacts of oil and gas upstream activities on the welfare of the people. The literature above has showed the existence of the knowledge gap on Uganda’s aspect. Most of the literature has been got from other countries and Uganda presents few research materials and it being that this is a new field in the economy of the country. No much attention has been paid to the impact of oil and gas upstream activities. Other studies have also looked at exploration alone, drilling alone. However, the current study looked at oil and gas upstream activities and their effects on the welfare of the locals in Buliisa District. Other studies done in the area have targeted only the contributing of the oil and gas industry forgetting the effects of the industry on the welfare of the locals.

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<sup>34</sup>Tribunal, W. (2011). Ko Aotearoa tenei. A report into claims concerning New Zealand law and policy affecting Māori culture and identity. Tetaumatatuatahi. Wai 262.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter describes the research methodology that was used in this study. Research methodology is of great essence as it gives a clear description of the procedures to be followed in conducting a study. This chapter presents the research design, study population, sample size determination, sampling technique, data collection methods, data collection instruments, validity and reliability of the study tools, data collection procedure, data analysis and presentation, ethical considerations and study limitations.

#### **3.1 Research design**

A descriptive cross-sectional study was employed. Both quantitative and qualitative study methods were used. This method allows for exploration into intentions, values and creates meaning<sup>35</sup>(Clifford, French, & Valentine, 2010). Since this study is to understand the welfare of the people and how the welfare is impacted by the oil and gas developments, this study used both methods. The 2 methods were preferred because they help in generalization of findings and comparing findings from both qualitative and quantitative.

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<sup>35</sup> Clifford Nick, French Shaun, Valentine (2010). Getting started in geographical research: how this book can help.<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.596.6417&rep=rep1&type=pdf>



### **3.2 Area of study**

The study was conducted in Buliisa District. Buliisa District is a district in Western Uganda. As with most Ugandan districts, Buliisa District is named after its "main town" Buliisa, where the district headquarters are located. Buliisa District is bordered by Pakwach District to the northwest, Nwoya District to the northeast, Masindi District to the east, Hoima District to the south and the Democratic Republic of the Congo, across Lake Albert, to the west. The 'main town' in the district, Buliisa, is located approximately 100 kilometers (62 mi), by road, northwest of Masindi, the nearest large town. Buliisa Town is approximately 91 kilometers (57 mi), by road, north of Hoima, the largest city in the Bunyoro sub-region.

Buliisa District was created in 2006 by the Ugandan Parliament. Prior to that, Buliisa District was part of Masindi District. The district is primarily rural and most people in the district are pastoralists, fisher people or subsistence agriculturalists. The district is part of Bunyoro sub-region, which is coterminous with Bunyoro Kingdom. As of October 2020, the districts that comprise Bunyoro Kingdom include: 1. Buliisa District 2. Masindi District 3. Kiryandongo District 4. Hoima District 5. Kikuube District 6. Kakumiro District 7. Kibaale District and 8. Kagadi District.

The 1991 national population census enumerated the population of the district at 47,709. In 2002, the national census conducted that year enumerated the district population at 63,363. On 27 August 2014, the national population census and household survey enumerated the population of Buliisa District at 113,161. In July 2020, the Uganda Bureau of Statistics (UBOS) estimated the mid-year population of the district at 149,300 people. Of these, approximately 78,300 (52.4 percent) were

males and approximately 71,000 (47.6 percent) were females. UBOS estimates that the district population grew at an average annual rate of 4.86 percent, between 2014 and 2020<sup>36</sup>.

During the first 20 years of the 2000s, a considerable amount of crude oil deposits have been discovered in the district. The Ugandan Government is in the final stages of preparing to start extracting the oil discovered in Buliisa and the neighboring districts and this is why the district was selected for the study because of the oil and gas activities which are taking place in the District. These have an impact on the welfare of the local communities in the District.

### **3.3 Sources of information**

The sources of information were both from secondary and primary sources. Primary sources were by use of Questionnaire method. This means that primary information was got directly from participants in this study. Data was also obtained from secondary sources such as online articles, reports available in different offices relating to oil and gas, newspapers, from important sources of information such as Ministry of Energy, District offices, magazines and reports and any other already written material.

### **3.4 Population and sampling Techniques**

The target population of the study was 176 respondents which was drawn from 4 sub counties out of 7 in Buliisa District and involved those with knowledge on the impacts of oil and gas developments on welfare of the people. The study also targeted 3 respondents from international companies, 50 leaders and LCs and 16 district officials.

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<sup>36</sup>Uganda Bureau of Statistics (1 July 2020). "The population development of Buliisa as well as related information and services

A sample size is defined as a subject or a sub-group of the population (Sakaran, 2003). It is difficult to ascertain the total targeted population, so it's prudent to decide on a sampled population and use a subset. The sample size for quantitative data collection is determined using Kregcie and Morgan (1975) sample size determination table and for qualitative data, Creswel (1998) recommendation for sample size of 5 to 25 was emphasized.

**Table 3. 1: Sample size distribution for quantitative and qualitative data collection**

<b>Nature of respondent</b>	<b>Target</b>	<b>Sample size</b>	<b>Sampling method</b>
Community members	176	123 (Kregcie and Morgan,1975)	Simple random sampling
International companies reps.	3	2	Purposive sampling
Leaders	50	11	Purposive sampling
District officials	16	7	Purposive sampling

The study employed purposive and simple random sampling techniques to select samples meant for the study<sup>37</sup> as used by Mugisa (2016). According to Bill (2011) purposive sampling enables the investigator to choose participants of his own interest based on education and experience.

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<sup>37</sup>Mugisa Samuel (2016). Socio-economic effects of oil exploration

Purposive sampling technique was used to select the key leader of Buliisa District, respondents from international companies, district officials.

For qualitative data collection, (Creswel, 1998) recommends a sample of between 5 to 25 respondents as a representative to the study. Therefore, this study involved 20 respondents recruited for qualitative data collection (2 international companies' representatives, 11 leaders and 7 district officials). Simple random sampling was employed to recruit residents of Buliisa District.

### **3.5 Variables and indicators**

The variables under study were;

Dependent variable; the dependent variable of the study is welfare of the local communities in Buliisa District. The indicators are levels of education, number of children under sponsorship, number of roads constructed, and increase in income, increased income generating activities, employment and access to health services.

The independent variables of the study were; the impacts of upstream activities which were both negative and positive.

### **3.6 Procedure/protocols for data collection**

After the proposal was approved by the research committee UCU, an introduction letter from UCU introducing the Investigator to Buliisa District was secured. The Investigator then sought for permission from Buliisa District management to carry out the study in the district. The Investigator was then introduced by the CAO to the respective leaders at district level such as Local councils, sub county chiefs and the oil companies in the area. The Investigator was then introduced by the respective village heads/LCs to the study participants and the purpose of the study was explained

to the study participant. The Investigator involved the use of 3 research assistants to collect data and these were trained prior to being engaged in data collection. This enabled data collection from a larger population in the shortest time possible.

The Investigator also sought for consent from the study participants before the actual data collection took place. The Investigator then proceeded to collect data and interview respondents as the responses were filled into the questionnaire and also during the interviews with key informants.

### **3.7 Data collection instruments and equipment**

This section looked at the study instruments that were used to collect data. This study employed the use of interview guides and questionnaires to collect data as explained below.

#### **Key informant Interview guide**

The Investigator employed the use of interview guide for District leaders, district officials, international companies/representatives, and LCs in the Districts. These interviews were face-to-face interviews (Ragin, 2007). The interview guide was arranged according to the specific objectives of the study. The questions were designed to generate information from respondents in a shortest time possible.

#### **Questionnaire**

Questionnaires were also used to collect data from community members in the oil rich areas of Buliisa District. This was done because it's the best data collection tool that can be used to collect data from many respondents in the shortest time possible. The questionnaire was arranged in section according to the objectives of the study. The questions in the questionnaire were direct and helped the research assistants to collect information from respondents' in the shortest time

possible. The questions were designed in English language since it is the language that has been used in all primary schools and education in Uganda. For those who cannot reply and answer in English, the research assistant translated to them and responses were filled in the questionnaire.

The research assistants also explained the purpose of the study to the respondents. This instrument was preferred for this category of respondents because it is used to collect data from a larger population in a short period of time.

### **3.8 Quality/Error control**

In order to access the quality of the research tools, validity and variability was done. Reliability refers to the consistency of a measure and validity is the extent to which the scores from a measure represent the variable is intended to (Wiederman, 2012).

Validity refers to the truthfulness of findings or the extent to which the instrument is relevant in measuring what it is supposed to measure (Earl-Babbie, 2013). Validity of the questionnaire was ascertained by carrying a pre-test on 10 people in Buliisa Sub-county. It helped to provide errors on sentence construction and all errors were corrected before the actual data collection process.

The Cronbach's alpha reliability test was done in SPSS to measure the reliability of the study instruments. Upon performing the test, if the value is found greater than 0.7, the items in the instrument was regarded reliable. The value found was 0.731 which was greater than 0.7. This meant that the items were reliable.

Quality control measure was taken to ensure that findings of the study meet the acceptable standard and measures which included assessing validity and reliability of the data collection instrument. This was done by a panel of experts of supervisors from UCU and these helped to validate the instruments.

Training of the research assistants was held so as to equip them with skills and knowledge on how to collect data and record the findings. Research assistants were trained for a period of 2 days and this helped them get used to the data collection tool with knowing also the purpose of the study.

Trustworthiness was ensured in data collection from the process of approval of the research to data collection. Credibility was ensured at all times so as the study findings to be identified were applicable to other contexts.

### **3.9 Strategy for data processing and analysis**

This section discussed how data was analyzed both quantitatively and qualitatively and the way in which the results were presented.

#### **Quantitative data analysis**

Quantitative data was entered and analyzed using Statistical Package for Social Sciences (SPSS) version 20. After data entry, it was cleaned for errors. Data analysis was in the form of descriptive statistics such as charts, tables, measures of central tendency and cross tabulation of various variables. The results were arranged according to the study objectives.

#### **Qualitative data analysis**

After data collection, recorded data from interviews was transcribed, after checking for completeness and consistency as well as for various omissions, incomplete or otherwise unusual responses. Qualitative data was analyzed thematically and was presented in a narrative way.

The data was also arranged in themes which were later coded into fields. This method is preferred because it's the best when collecting stories from Participants. Document analysis was used to analyze data from documents that were reviewed by the Investigator. Documentary analysis is a

type of qualitative research in which documents are reviewed by the analyst to assess an appraisal theme. It may also involve coding content into subjects like interview transcripts (Bowen, 2009).

### **3.10 Ethical considerations**

For this study to be successful, the Investigator got an introduction letter from the Uganda Christian University that introduced the Investigator to the Leadership of Buliisa District. Permission to conduct the study was sought from Buliisa District Local Government, leaders, staffs of the district and local council leaders where the study was carried out. The purpose of this study was also explained to the study participants and the right to withdraw from the study was given to the study participants since the study was voluntarily in nature. Consent was sought from the study participants and the respective district leaders. This means that the study only involved study participants who had consented. Lastly, the information obtained from the field was kept confidential and private only accessed by the Investigator and the research assistants who helped in data collection and report writing.

### **3.11 Methodological constraints**

The study was both qualitative and quantitative in nature and using both of these approaches broadened the area of study which took a lot of time for the Investigator to gather information from respondents on a limited time. However, the Investigator employed the use of research assistants to help in collection of data from community members.

Ethical clearance was difficult to attain that is to say, having access to people, organizations, data and for whatever reason, access was sometimes delayed as the management such as LCs and company representatives had to first confirm from the district leaders on a phone call as to whether permission was granted from office and not rather forgery. However, the Investigator also assured



the participants about the confidentiality that was paramount in the study and the respondents were given authority to consult the district management about the study before giving out any information.

### **Conclusion**

This chapter highlighted the methods used in the study. The study was mainly descriptive cross-sectional study. The study included local communities living in Buliisa District. Data was collected using questionnaires and interview guides. All the process of data collection followed ethical principles of research.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS**

#### **4.0 Introduction**

This chapter presents the results/findings from a study conducted in Buliisa District. The study was carried out to find out the impacts of short-term oil and gas activities on the welfare of the local communities in the District. The findings have been presented in tables and figures with frequencies and percentages. The study involved 123 local community members, 2 representatives from international oil companies (Total and Tullow oil), 11 leaders and LC members and 7 district officials. This study was conducted in 2021 and it took the researcher 5 months from December 2020 to have the study completed. Data collection was done in January 2021.

The findings below represent the results and data obtained from the field.

**Table 4. 1: Socio Demographic characteristics of community members**

<b>Variables</b>	<b>Frequency (n=123)</b>	<b>Percentages (%)</b>
<b>Age (years)</b>		
18-25	40	32.5
26-32	48	39.0
33-41	20	16.3
42-50	14	11.4
Above 50	1	.8
<b>Sex</b>		
Male	81	65.9
Female	42	34.1
<b>Household Size</b>		
0-2	19	15.4
3-5	53	43.1
More than 5	51	41.5
<b>Tribe</b>		
Alur	12	9.8
Iteso	4	3.3
Lugbara	1	.8
Muganda	1	.8
Mugungu	91	74.0
Munyoro	14	11.4
<b>Religion</b>		
Catholic	43	35.0
Protestant	64	52.0
Muslim	8	6.5
Born again	8	6.5

Findings in table 2 shows the demographic characteristics of community members who participated in this study. According to age, 39.0% were between 26 to 32 years, 32.5% 18 and 25 years. This shows that the highest percentage of participants was of youthful age. Results also showed that 65.9% of the participants were males and 34.1% females. 43.1% stayed with about 3 to 5 people in their homes, 41.5% stayed with more than 5 people and only 15.4% had a household size of 2 and less people.

According to tribal distribution, 74.0% were bagungus, 11.4% banyoro, 9.8% Alurs and other tribes reported in the study were Iteso, Lugbara, Baganda. Religious affiliation of the respondents was also assessed and the study found out that 52% of the participants were protestants, 35% Catholics, 6.5% Muslims and 6.5% Born agains.

#### 4.1 socio-economic status of the people living in Buliisa District

Objective one of the study was to find out the socio economic status of people living in Buliisa District. Findings in table 3 explain the socio economic status of people in this district which is rich in oil and gas resources.

**Table 4. 2: Socio-economic status of people living in Buliisa District**

<b>Variables</b>	<b>Frequency (n=123)</b>	<b>Percentages (%)</b>
<b>Education level</b>		
None	3	2.4
Primary	28	22.8
Secondary	45	36.6
University/tertiary	47	38.2
<b>Employment status</b>		
Employed	65	52.8
Unemployed	58	47.2
<b>Occupation</b>		
Business men/women	23	25.0
Farmers	16	17.4
Fish monger/fisher men	14	15.2
Others		42.4
<b>Average income per month (Ugshs.)</b>		
10,000 to 250,000	54	60.7
300000-500000	26	29.2
More than 500,000	9	10.1
<b>Alcohol consumption status</b>		
Consume alcohol	50	40.7
Don't consume alcohol	73	59.3
<b>Residence</b>		
Town	46	37.4
Village	77	62.6

Findings in table 3 show that 38.2% of the local communities assessed had university/tertiary level of education, 36.6% had secondary level of education, 22.8% had primary level of education and only 2.4% were not educated. According to employment status 52.8% were employed and 47.2% were unemployed, 25% were business men and women, 17.4% were farmers, 15.2% were fish monger/fishermen while others, 42.4% had many job titles. It was seen that most of the people in Buliisa are involved in businesses, farming and fishing.

*“Most of the people here are fishermen and dwell in major things that are farming, cattle keeping and other animal rearing” (Leader 3 Buliisa Town council, Buliisa District).*

*“Many of the people here are farmers and fishermen, us being near the Lake Albert has made most of the people in this district to engage in farming and fishing activities as a source of income. They are low income earners and others can have one meal a day and with education we have improved since the introduction of Universal Education for all” (Leader 5 Ngwedo, Buliisa District)*

*“the major economic activity in this district is fishing and faming and now that we have oil, many people are diversifying and engaging in more productive activities such as vending, and opening up of small retail shops” (Leader 6, Buliisa Sub county, Buliisa District).*

*“The economic status of people in Buliisa District is fair I can say and leave in hard to reach areas and most of the people are not educated or have not gone to school” (Leader 4 Ngwedo, Buliisa District)*

*“Most people in Buliisa district are low income earners who depend on fishing and farming/rearing of animals such as cattle for a living. They are not all that well educated a lot and live mainly in rural areas/village. As you move around you will observe that few people are in towns as compared to those in villages” (District official 1, Buliisa District Local Government)*

All the findings from interviews show that the major economic activity or source of income in the district are farming and fishing. This shows that the main source of income for the people in Buliisa District are farming and fishing.

Results also from this study also showed that 60.7% of the local community members in Buliisa District earned income between 10,000 to 250,000 Uganda shillings, 29.2% earned income between 300,000 to 500,000, and 10.1% earned income which was greater than 500,000/= . Also findings from interviews show that people in Buliisa District are low income earners;

*“People in this district are low income earners and others can have one meal a day and with education we have improved since the introduction of Universal Education for all” (Leader 5 Ngwedo, Buliisa District)*

*“People in Buliisa district can still have one meal a day and earn income which is below the average income of 300,000/= ” (Leader 2 Ngwedo, Buliisa District).*

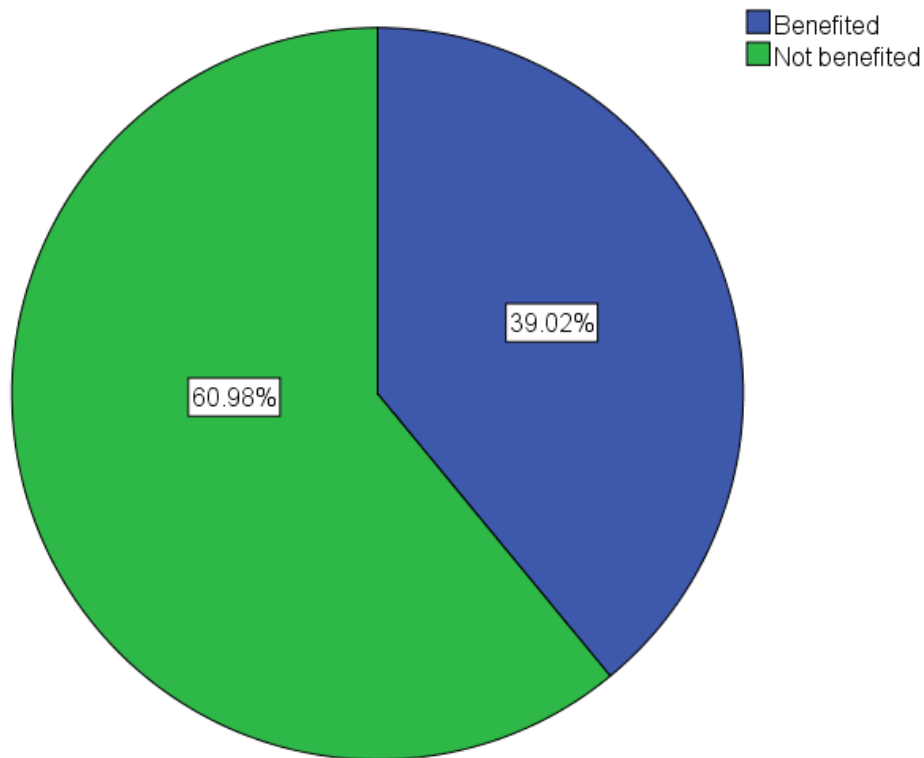
It was also found out that 59.3% of the community members never consumed alcohol and 40.5% consumed alcohol. According to residence, 62.6% of the participants were found to be living in a village setting and 37.4% lived in a town setting.

*“They are not all that well educated a lot and live mainly in rural areas/village. As you move around you will observe that few people are in towns as compared to those in villages” (District official 1, Buliisa District Local Government)*

*“Many of the community members since they are engaged in farming and fishing, they normally stay in villages and rural areas and only come to town to shop a few things and to also eat some part of their money” (District official 7, Buliisa District Local Government).*

#### **4.2 Effects of oil and gas exploration and drilling activities on the welfare of people of Buliisa District.**

**Figure 4. 1: Percentage of community members who have benefited from the oil and gas activities**



Results from figure 2 shows that 39.02% of the community members had benefited from the oil and gas activities in Buliisa District while the 60.98% had not seen any benefit from these activities taking place in their areas.

Among those who benefited, expressed their won benefits and the results in table 4 below show the benefits of the community members from the oil and gas activities. Results in table 4 below represent the benefits the community members have so far gained from the oil and gas activities taking place in Buliisa District.

**Table 4. 3: Benefits derived from the oil and gas activities taking place in Buliisa District**

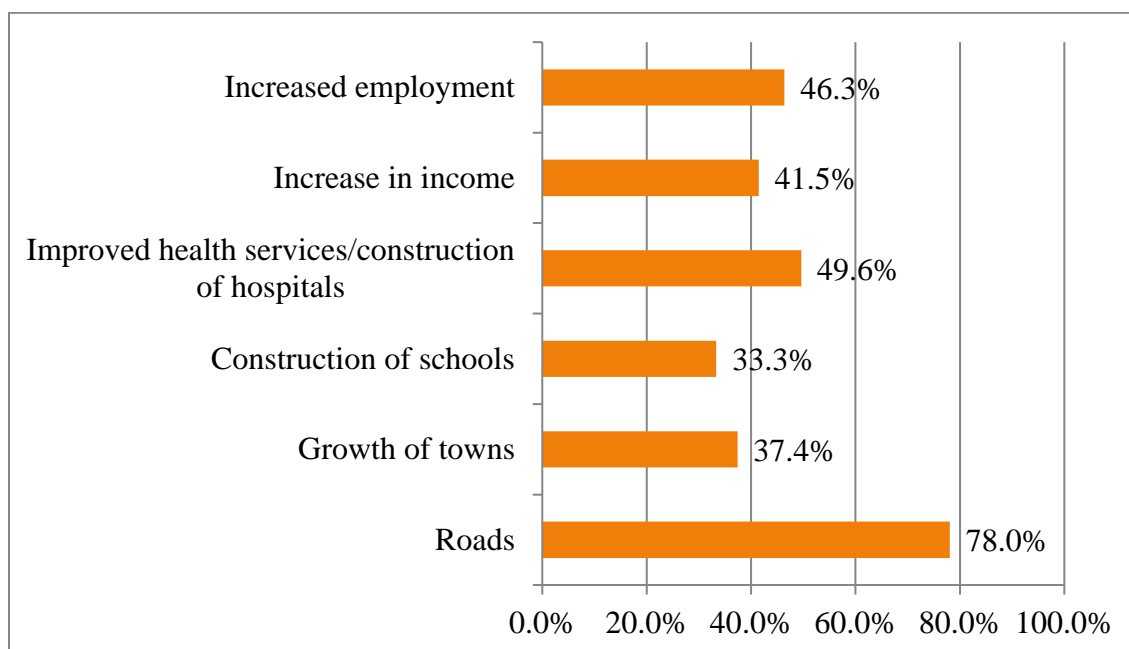
<b>Benefits from oil and gas activities</b>	<b>Frequency</b>	<b>Percent</b>
Built rentals	4	8.3
Engagement in community activities	5	10.4
Compensation	6	12.5
Good roads	16	33.3
Increased income	5	10.4
Job creation/employment	10	20.8
Got scholarships	2	4.2
<b>Total</b>	<b>48</b>	<b>100.0</b>

Results in table 4 show that 33.3% community members had recognized the construction of good roads as a benefit to them, 20.8% said they had got employment and jobs due to these activities, 12.5% said they received compensation from the government which acted as a source of capital, others had built rentals from the money, engaged in community development activities, increment in income and on top of that getting scholarships provided at the district. From the table above, people who managed to construct buildings got the money from the compensations that were made. Oil exploration and drilling activities have attracted the community to get engaged in jobs and community development activities.



*“Many people in our district have been compensated; we have managed to see some of our local community members get jobs though the percentage is still low of around 20%. Yes as you moved around its clear you also saw some other progress activities being done on roads, roads are being constructed in the district.” (LC Member Buliisa District 1, 2021)*

**Figure 4. 2: Infrastructure that has been developed in Buliisa District as a result of oil and gas activities**



Results in figure 3 show the type of infrastructure that has been developed in Buliisa District. 78% of the community members said that roads have been constructed in the district, 49.6% reported that there has been improvement and construction of more health facilities in the district, 46.3% said there has been increase in employment opportunities, 41.5% said increase in income and income generating activities. Schools were also reported to have been constructed and growth of small towns in the district. According to welfare, it can be seen that there has been increase in income, improved access to better health services, increased employment and better roads for

community members to transport their products to the market. This means that oil and gas upstream activities have led to improvement of welfare among local communities.

### **Land grabbing**

Results from this study also showed that at least 17.1% of the local community members who participated in the study were victims of land grabbing cases. Reasons given for land grabbing were; land being given away at a cheap price, land also being bought by the oil companies, and some land being taken away even without payment of compensation. Oil exploration activities led to the displacement of people from their residence homes. Whenever oil deposits were found in some ones land, they would be displaced by the responsible authorities in order to do drilling activities and also gazette the places.

**Table 4. 4: Effects of oil and gas exploration and drilling activities on the welfare of the local communities in Buliisa District**

<b>Effects of oil and gas activities</b>	<b>Frequency (n=123)</b>	<b>Percent (%)</b>
Air and noise pollution	51	41.5
Change in environment/climate	40	32.5
Death from unclear reasons/threats/Tribal conflicts	10	8.1
Destruction of grass/deforestation/crops	6	4.9
Displacement of people/wildlife	29	23.6
Family wrangles	21	17.1
Floods	6	4.9
High cost of living	11	8.9
Increase in HIV/STIs	4	3.3
Loss of land/land grabbing	35	28.5
Soil erosion/infertility	10	8.1
Low yields of crops	22	17.9
Increased in prostitution	6	4.9
High crimes such as defilement	20	16.3
Increased accidents	4	3.3
Population increase	2	1.6

***NB: Results in table 5 were compiled basing on multiple responses and answers that were given by respondents in the field.***

Results above show that oil and gas activities have also had negative impacts on the welfare of the local communities in Buliisa District. 41.5% of the community member reported that oil and gas activities have led to increased pollution in the atmosphere and noise and this was mainly due to drilling activities that take place during drilling, 32.5% reported that there has been change in the climate and environment, 28.5% said oil and gas activities have led to increase in land grabbing, 23.6% said displacement of people and animals, 17.9% said there has been decline in crop yields, 17.1% said the activities have led to indirect increase in family wrangles and breakup and among other reasons as can be seen in table 5 above. Oil exploration is associated with clearing of grass and vegetation which leads to land degradation and decline in crop yields, displacement of wild animals which end up in people's crops spoiling them.

*“For land grabbing, we have many cases and they are still coming up. We appeal to the government to come in and assist us. This has been spear headed by corruption among officials who value land and fail to pay/compensate the community members. Sometimes they even over value the land and compensate little to the locals.” (LC Member Buliisa District 1, 2021)*

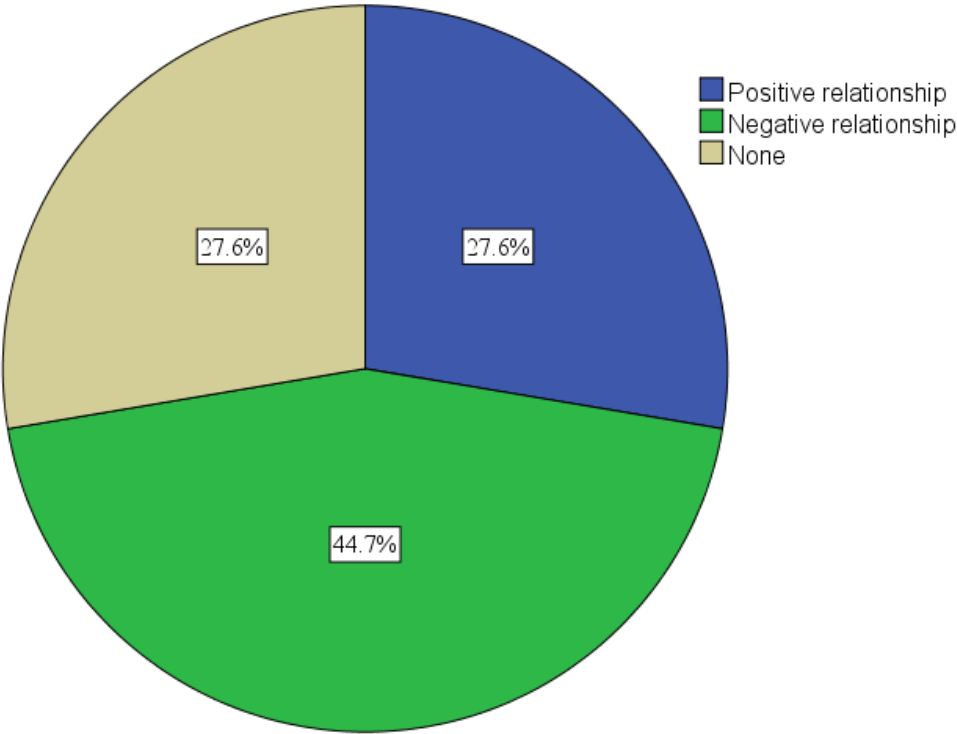
*Land conflicts have also come up as many of the people report land grabbing cases (Sub county Chief Buliisa District 2, 2021)*

*“We have land grabbing though not common, but have family break ups, noise pollution, and misunderstandings which arise due to compensation issues.”(LC member Buliisa District 2, 2021)*

*“There has also been creation of safety exclusion zones were by people in the area are not allowed to reach the areas such as oil wells and access to some of the employee camps” (Leader 4 Ngwedo, Buliisa District).*

Due to oil and gas activities carried out in Buliisa District, positive changes have so far been felt in the region such as improved roads, construction of schools, lodges, development of small towns. Negative changes have also been felt such as land grabbing, displacement of people, land degradation.

**Figure 4. 3: Nature of relationship shared between the oil companies and the local communities in Buliisa District**



Results from this study showed that 44.7% of the community members had a negative relationship with the oil and gas companies, 27.6% had a positive relationship with them and 27.6% never had any relationship with the oil and gas companies. Although the local communities reported that they

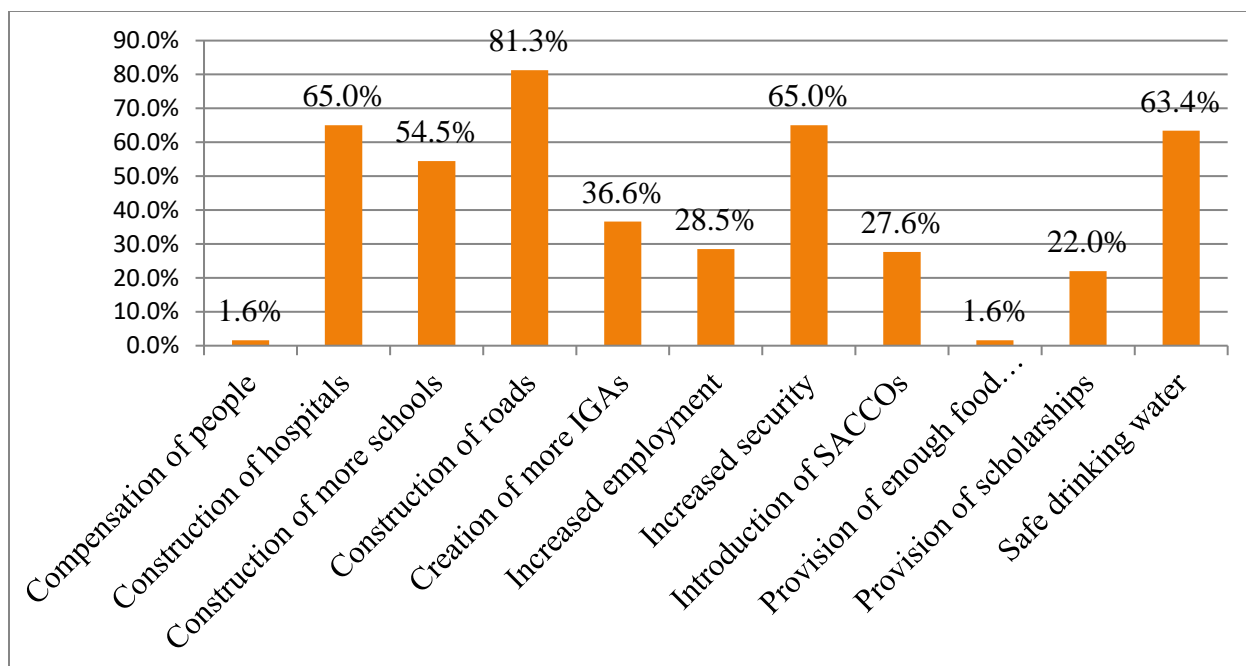
had a negative relationship with oil companies in the region, the oil company representative reported that they had a fair relationship with the local leaders and not the community members. This could be true that the oil companies and community members have a limited link.

*“I very well know that whatever happens in the community, the blame may be on the oil companies and our staffs. But we have a direct relationship with the local leaders. All I can say is that you can relate with every community member, but we talk with their leaders. We have also organized community engagement activities to promote a better relationship such as sponsoring some football leagues/matches in the area, were people have managed to get certificates” (Total oil company representative, Buliisa District).*

*“To promote better relationship with the community, we as Tullow oil, we managed to construct a hospital for the district so as to get more support from the local communities, though now everything is being taken up by Total” (Tullow Oil company Representative, Buliisa District)*

#### **4.3 Measures put in place by the responsible bodies to reduce on the negative impacts of oil and gas activities in Buliisa District.**

**Figure 4. 4: Steps that have been taken by the government done to improve welfare of people in Buliisa District**



According to the findings of the study, 81.3% reported that the government constructed roads to improve on the welfare of the communities in Buliisa district, 65% reported the construction and improvement of health facilities, 65% said the government increased security in the area, 63.4% said there has been provision of safe drinking water and 54.5% said schools and training centers have been constructed in the area to improve on education and among other steps as can be seen in figure 5 above. Findings from interviews also support the findings of this study;

*“Some of the students in the district have been given scholarships in conjunction with oil companies” (Leader 8 Kigwera, Buliisa District).*

*“The security in Buliisa District has also increased as a result of oil and gas activities taking place in the area. The camps alone and oil fields are in security by the Saracen soldiers” (Total oil company representative)*

**Table 4. 5: Measures taken by the government to reduce on the negative effects of oil and gas activities in Buliisa District**

Measures	Frequency	Percent
----------	-----------	---------

Compensation of land owners	67	67.7
Discussions and negotiations	20	20.2
No measure has been taken	12	12.1
<b>Total</b>	<b>99</b>	<b>100.0</b>

Results in table 6 show that 67.7% reported that the government had compensated the land owners in the district to avoid any land wrangles and conflicts that would arise and also 20.2% said that the government held discussions and negotiations with the local communities to decide on what can be done to solve these problems that came up as a result of oil and gas activities. Other measures to reduce on the effects of oil and gas were highlighted during the interviews;

*“There is a council in the sub counties that helps to solve family issues for those who had family wrangles such as divorce and separation, the committee has also managed to solve some of the land wrangles in the community after members were compensated” (Leader 11 Kigwera, Buliisa District).*

### **Conclusion**

This chapter four covered the results and presentation of findings for the study which was conducted in Buliisa District. The results in here are a representation from the communities and not own work for the investigator. The results were presented in tables, figures and with percentages. The chapter was also arranged according to specific research objectives.

## **CHAPTER FIVE**

### **DISCUSSION OF RESULTS**

#### **5.0 Introduction**

This chapter shows the discussion of results, conclusion and recommendations arising from the study conducted to assess the impacts of short term oil and gas activities on the welfare of the local communities in Buliisa District.

#### **5.1 Discussion of findings**

##### **Socio-economic status of the people living in Buliisa District**

Results in this study have showed that majority of the community members had tertiary level/university level of education, followed by those of secondary level of education and few had primary level of education and others were not educated at all. The study revealed that majority have attended tertiary institutions and vocational training centers with few having access to university education.

The study also found out that many people in the district were unemployed and those who were employed had businesses, were practicing farming and fishing. It was seen that most of the people in Buliisa are involved in businesses, farming and fishing.



Results also from this study also showed that majority of the local community members in Buliisa District earned income between 10,000 to 250,000 Uganda shillings. This showed that majority of the people in Buliisa District are low income earners and low in socio economic status. This also meant that the purchasing power of the locals is limited due to the low income.

It was also found out that majority of the community members never consumed alcohol and less than average of the community members consumed alcohol. According to residence, majority of the participants were found to be living in a village setting and few lived in a town setting. This means that majority of the people in the district prefer to stay in villages than in towns. This could be because in the villages they have the opportunity to practice farming and animal rearing.

### **Effects of oil and gas exploration and oil drilling activities on the welfare of the local communities in Buliisa District**

This study also revealed that though there are negative impacts of oil and gas activities in Buliisa District, there also exist the positive effects that have been so far felt by the people of Buliisa District. This study revealed that a few community (1/3) members had benefited from oil and gas activities. The benefits from the oil and gas activities achieved were; attainment of scholarships for children, construction of better roads, creation of employment opportunities, provision of compensation which acted as capital for some people, construction of rentals, engagement in development activities, increased income/IGAs and improvement in health facilities at the District. These were reported to be the major benefits achieved by people in Buliisa District.

This study also revealed that roads have been constructed in the district, there has been improvement and construction of more health facilities in the district, there has been increase in employment opportunities, increase in income and income generating activities. Schools were also reported to have been constructed and growth of small towns in the district. All these infrastructural developments have been as a result of oil and gas activities taking place in the District. Similarly

a study done by Ogwang et al. (2018) along the Albertine graben to find out the effect of oil exploration on the livelihood of the local communities revealed that there are both there were job creation, development of infrastructure such as roads, schools and hospitals.

Many effects of oil and gas activities were also reported and among them were land grabbing. The study found out that a few of the local communities about 17.1% of them had experienced land grabbing. Land grabbing was reported into many forms such as buying the land at cheap price by some authorities/companies and taking away of land without even compensation. The same study by Ogwang et al. (2018), also revealed some negative effects of oil and gas activities which were; displacement of people, in migration, food insecurity, land grabbing, environmental degradation and fear and anxiety among people. Similar findings were also seen in the current study.

Results from the study also showed that oil and gas activities in Buliisa District have been accompanied by both air and noise pollution. Of course, during the activities of oil exploration and drilling, too much dust and noise is felt. There is also a lot of dust on the roads being constructed due to movement of vehicles and trucks transporting soil for road construction which have also yielded more dust in the District. Noise pollution has been caused by running machines that drill and tractors and excavators. Similarly, findings by Seibold (2019) in the United States, revealed that about 12 million people who stayed within a half a mile of oil and gas facilities were exposed to both air pollution each day that passes, and this was also anticipated to lead to health issues. The UN has also reported air pollution as one of the effects of oil and gas activities. Findings by Amoasah (2010) also support findings of the current study; it was found out that in Amoasah's study that development and production stages in oil and gas are associated with pressures which include sound (noise) from seismic operations, vessels and helicopter activities.

Similar studies done by Mugisa et al. (2016) in Uganda revealed noise, road damage and road safety, visual impact and more noise with the addition of excessive light at night, vibration, dust, were the effects of oil and gas activities that took place in different areas. Similarly, in one of the study by Maetzig (2010) in Tikorang it was found out that noise was also among the major effect mentioned by community members around oil and gas production areas.

The local communities also mentioned that there has been change in the climate and the environment as some of the grass and vegetation has been cleared. This has brought drought in the area, increase in soil erosion hence leading to soil infertility. The local community members in Buliisa District reported that the crop yields had declined and for this reason, the change in climate and the environment must have caused this.

The study also found out that oil and gas activities in Buliisa District have led to the displacement of people and animals. Many people were evicted from their homesteads after compensation and others have run away from their families because they have got enough money for their selfish reasons; this also led to the increase in family wrangles, divorce and separation. Similarly, Kingham (2019) reported that some activities associated with oil drill disrupt wildlife, water sources, human health, environment and land and other recreational activities. The extraction of oil and gas is a problem to human beings as it creates loud noise, displacement of human beings, and the constructions related to oil disrupt human activities such as farming and also decline in crop yields.

The study also revealed that majority of the community members have a negative relationship or even a bad attitude with the oil and gas companies in Buliisa District. It was also found out that restrictions had been put in some areas or parts in the district where by no one was allowed to access

the spots. This has denied the people their right to movement in the area. Similar findings were reported on BBC news (2010) where it was also reported that at the Naval base that exclusion zones had been demarcated to avoid accessibility by local people.

**Measures put in place by the responsible bodies to reduce on the negative impacts of oil and gas activities in Buliisa District.**

In order to reduce on the negative impacts of the oil and gas activities in Buliisa district, it was found out that compensation was being made to the local community members and also negotiations/discussions were held so as to get to know the challenges faced and how to overcome them. For example, compensation was made to land owners though some were not satisfied with the amount given to them. This was done to reduce on any land issues, wrangles that would arise due to crop destruction and use of land for the local communities. It was also found out that watering trucks would provide water on dusty roads to also reduce on the amount of dust in the atmosphere and the roads. A Study by Walter (2014) supports the findings of the current study where among the number of approaches employed to reduce on the impacts of oil and gas activities were compensation, discussions and working with local authorities to develop uniform approaches such as communication, consultation and consistency of compensation.

In order to also improve the welfare of the local communities in Buliisa District, the government also has provided safe water access, constructed more good roads to promote smooth transport flow, there has also been improvement in health facilities and construction of health facilities to help the community in receiving health care services. Security has also increased in the area and has provided the local people with support and the threats and crimes in the area are not high.

This study also revealed that training and awareness was done by the government during the period of compensation as people were trained on how to handle the money that was given to them to make productive work so as to improve on the welfare rather than saying oil and gas is a resource curse. It was also reported that the oil companies engage with the community in some development activities so as to improve on the welfare of the locals. Similarly, a report by Tullow oil (2013), showed that there was a shared responsibility which was created among the community members as it always created a package for the local community members that were affected by the activities of oil and gas.

### **Conclusion**

This chapter dealt with the discussion of the results of the study. This was followed by cross-referencing with other related study findings from other scholars. Relevant literature from other scholars was also included in this chapter to support the current study findings.

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Conclusion**

In conclusion, this study was carried out to find out the impacts of short term oil and gas upstream activities on the welfare of people in Buliisa District. This study found out that people living in Buliisa district are of low socio economic status since they earned low income. This study there found out that there were both positive and negative impacts that have been generated as a result of the oil and gas activities taking place in the district; The positive impacts were; construction of roads, health facilities, schools, provision of scholarships, increase in IGAs, increase in employment hence income, increased security in the area, the positive impacts of compensation and growth of small towns. The negative impacts were; environmental change in climate, pollution of the environment, increased land grabbing cases, conflicts and family wrangles, displacement of people and animals, increased cost of living, land degradation and its effects such as low crop yield, increase in defilement cases, prostitution and spread of HIV/AIDs and population increase, destruction of grass among others.

#### **6.2 Recommendations**

It is from the findings of this study that the following recommendations are made;

##### **To the government of Uganda**

There is need for the government of Uganda to use appropriate compensations procedures when carrying out compensation for any matter of land. There is need for openness and clear measures made to follow for every person. This study found out that the valuers of land valued highly the

government but compensated the local people with little money. The money received by the local people was not the exact amount requested from the government. This calls for the anti-corruption proceedings to come in and evaluate the matter on ground to solve the problems the local community members face. This study found out that people received low compensation yet the contractors valued the land highly to the Government of Uganda.

The government of Uganda also needs to rethink and review the land policy were by the people also have to benefit from the land were minerals have been discovered rather than just displacing people which creates a big negative impact to the displaced people. This study found out that community members were displaced from their land without any compensation for the future.

### **To the Oil and Gas companies**

There is need for the oil and gas companies to harmonize and build a positive relationship with the community members in the district. Job creation in the oil companies should also target the local community members hence increasing community favor. It was found out that the local community members never benefited from top jobs, they were casual laborers in the oil companies. Therefore, the companies need to look into this aspect since many people in the district have received education.

The oil companies should also procure goods, services and foods from the local communities in the district so as to support the people of Buliisa District in getting income. It was found out that the oil companies bought foods from other companies that are not based in the region. Similarly the local contractors who used to supply meat and fish in the area were stopped from supplying because the good were not suiting the quality (false accusation). This calls for the management to consider the local suppliers and either train them or even equip them with appropriate methods of

supply and storage. This study found out that most of the community members were low income earners and some were denied supply of food stuffs to oil companies.

The study found out that there was a lot of air pollution in the district because of the roads that were being constructed. This calls for the need for continued watering of the roads to reduce on the dust caused by trucks. Oil companies need to harmonize with contractors of roads so as to work on the issues that are in the public that “vehicles from oil companies cause a lot of dust”

### **To the leaders, community members in Buliisa District**

There was also a decline in crop production reported as a result of land degradation. There is need for the local community members to boost their agricultural practices with the use of improved technology so as to promote increased production in the area.

There is need for the community leaders to mobilize the community members to get involved in active socio economic work in the community to develop Buliisa District. This can be done through creation of small income generating activities, improvement of infrastructure and investment in education so as to improve the welfare of the local communities in Buliisa District.



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## **APPENDICES**

### **APPENDIX 1: CONSENT FORM**

**TITLE OF STUDY:** IMPACTS OF SHORT TERM OIL AND GAS UPSTREAM  
ACTIVITIES ON THE WELFARE OF PEOPLE IN BULIISA DISTRICT

#### **Institutional/ Investigator Identity**

I am called Mugisha Moses a Master student with Uganda Christian University Uganda; my student registration number is **J20M47/008I** am studying for an award of a master's in business administration of Oil and Gas Management.

#### **Purpose of study**

The purpose of this study is to find out the impacts of the oil and gas sector on the welfare of the locals in order to streamline processes that can help the local people in Buliisa District benefit from the oil and gas industry.

#### **Specific Objective(s)**

1. To find out the socio-economic status of the people living in Buliisa District
2. To examine the effects of oil and gas activities on the welfare of people of Buliisa District.
3. To establish the measures put in place by the responsible bodies to reduce on the negative impacts of oil and gas activities in Buliisa District.

**Procedure**

After seeking participant's consent, the interview process will last between 30 – 40 minutes. Questions asked will be the impact of oil and gas on the welfare of the local communities in Buliisa District which is located in Uganda.

**Alternative:**

You will not be penalized for your refusal to participate in the study since this study is voluntarily and without any bias. We will do what we can to respect your rights as research participants.

**Risks:**

Respondents may find it hard to answer some of the questions in fear of the information being leaked out or experience psychological distress. This will be minimized by making appointments with them and assuring them that this information will be kept confidential. Participants may choose to participate or not. Otherwise, the study is of minimal risk, no risks are anticipated with participating in this study.

**Benefit**

Your participation will help in improving the welfare of the communities in the oil rich areas and this will also guide on development of policies designed to benefit the local community members.

**Confidentiality**

Your responses to this research will be anonymous. Please do not write any identifying information on any questionnaire provided. Every effort will be made by the Investigator to preserve your confidentiality.

**Voluntary participation**

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form.

Compensation for time, effort and inconvenience

**You will be provided with a bottle of soda as an appreciation for your time in this study**

In case you have any further questions concern the study, please contact:

Mugisha Moses

The investigator

Tel: .....

**Statement of Consent.**

I confirm that I have read and understood the Participant Information Sheet

- I have had the opportunity to ask questions and had them answered
- I understand that all personal information will remain confidential and that all efforts will be made to ensure I cannot be identified (except as might be required by law)

▪I agree that data gathered in this study may be stored anonymously and securely, and may be used for future research

▪I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason.

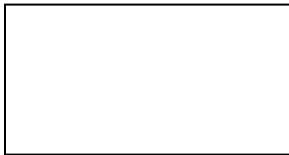
▪I agree to take part in this study

Literate Participant

Date \_\_\_\_\_ & Signature \_\_\_\_\_

Illiterate participants;

Thumb print



Investigator/research assistant

Name \_\_\_\_\_ Date \_\_\_\_\_ & Signature

**APPENDIX 2: QUESTIONNAIRE**

Good morning/Afternoon. I am Mugisha Moses, a master’s student of Business Administration from Uganda Christina University, Uganda. I am conducting a study to generate data and information on the effects of the oil and gas upstream activities on the welfare of the local communities in Buliisa District.

You are kindly invited to participate in this study. Your participation in this study is voluntary. You are free to refuse to answer any of the questions I may ask. Any information you will provide will remain confidential. If you do not understand any of the questions, you can ask me for clarification.

**Instructions**

Kindly select the best answer for your choice and where space is provided, fill in the appropriate answer of your choice depending on your feeling.

**Questionnaire number**

**Sub-county:** .....

**SECTION A: DEMOGRAPHIC CHARACTERISTIC**

<b>S.No</b>	<b>Question</b>	<b>Choice</b>
<b>1</b>	What is your age (in years)?	-----yrs.



2	Gender	<ol style="list-style-type: none"> <li>1. Male</li> <li>2. Female</li> </ol>
3	Household size (how many people do you live with?)	.....
4	Religion	<ol style="list-style-type: none"> <li>1. Catholic</li> <li>2. Protestant</li> <li>3. Muslim</li> <li>4. Born again</li> <li>5. Seventh day Adventist</li> <li>6. Others (specify) .....</li> </ol>
5	Tribe	.....
<b>SOCIO-ECONOMIC STATUS</b>		
5	What is your education level?	<ol style="list-style-type: none"> <li>1. None</li> <li>2. Primary</li> <li>3. Secondary</li> <li>4. University/tertiary</li> </ol>
6	Are you employed?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>

<b>7</b>	If yes, what's your occupation?	.....
<b>8</b>	How much is your income per month	..... Uganda shs
<b>9</b>	Do you currently take alcohol?	1. Yes 2. No
<b>10</b>	In Buliisa district where do you stay?	1. Town 2. Village
<b>EFFECTS OF OIL AND GAS ACTIVITIES ON THE WELFARE OF PEOPLE</b>		
<b>12</b>	Have you benefited from the oil and gas activities taking place in your neighborhood?	1. Yes 2. No
<b>13</b>	If yes, what exactly have you benefited?	.....
<b>14</b>	Oil and gas activities leads to development of infrastructure, what infrastructure has been	1. Roads and transport 2. Growth of small towns 3. Construction of schools

	developed in your area? <b>Select as many possible answers</b>	4. Improved health services/construction of health facilities 5. Increased income generating activities 6. Increased employment 7. Others (specify) .....
	Have you been a victim of land grabbing by the oil sector?	1. Yes 2. No
	If yes above, give reason for your answer	..... .....
	What other challenges have you faced resulting from oil and gas activities in this area? <b>provide as many challenges as possible</b>	..... ..... ..... .....
	What relationship exists between you and the oil companies in your area?	1. Positive relationship 2. Negative relationship 3. None
<b>MEASURES PUT IN PLACE BY THE RESPONSIBLE BODIES TO REDUCE ON THE NEGATIVE IMPACTS OF OIL AND GAS ACTIVITIES IN BULIISA DISTRICT</b>		
	What has the government done in your area to improve welfare of individuals?	..... ..... .....

		<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
	<p>Amidst the challenges faced by local communities due to oil activities, what has the government done to reduce the negative effects?</p>	<p>1. Compensation of land owners</p> <p>2. Discussions and negotiations</p> <p>3. Others (specify) .....</p> <p>.....</p> <p>.....</p> <p>.....</p>
	<p>What do you think the government and the Ministry of Energy do to improve the welfare of the locals in Buliisa District?</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

**END**

**THANK YOU FOR YOUR CONTRIBUTION**

### **APPENDIX 3: KEY INFORMAT INTERVIEW GUIDE**

Good morning/Afternoon. I am Mugisha Moses, a master's student of Business Administration from Uganda Christina University, Uganda. I am conducting a study to generate data and information on the effects of the oil and gas upstream activities on the welfare of the local communities in Buliisa District.

You are kindly invited to participate in this study. Your participation in this study is voluntary. You are free to refuse to answer any of the questions I may ask. Any information you will provide will remain confidential. If you do not understand any of the questions, you can ask me for clarification.

**Title of the respondent:**.....

#### **Questions**

##### **Socio economic status of people in Buliisa Districts**

- a) Begin with general question about individuals (participants) – Have the ice breaker. Ask each participant their first name, the best moment so far since the beginning of the year 2020 and what they want to see happen after the lockdown?
- b) How can you describe the social economic status of the people living in this oil rich Effects of oil and Gas activities on the welfare of people?
- c) What have the people of Buliisa district benefited from the oil activities taking place in the district?
- d) What do you have to say of the future and now about the oil and the development of the district? Do you think the oil and gas sector has so far done good things to Buliisa district?

And what are those good things that have so far been achieved at the District and also by the local communities around?

- e) Many stories have been hitting media among others about the land grabbing in the district, what do you have to say about this and what can be done in case of any?
- f) Besides land grabbing, what other challenges have so far been reported, have you heard from the local communities due to the oil activities taking place ?

**Measures put in place by the responsible bodies to reduce on the negative impacts of oil and gas activities in buliisa district**

- g) What measures have you put, or have you implemented to improve the welfare of the local people in Buliisa District? Have there been scholarships given to students in the area, health insurance among others?
- h) What does the government implement in this district towards the reduction of the impacts that oil and gas come with such as environmental degradation, displacement of wildlife, pollution of water and water bodies which are a major source of fish in this district?
- i) what do you think the government should do to improve the welfare of the local communities in Buliisa District as a result of the oil discovered in the region?

**End**

**APPENDIX 4: INTRODUCTION LETTER AND PERMISSION TO CONDUCT RESEARCH IN BULIISA DISTRICT**



Institute of Petroleum Studies - Kampala

13<sup>th</sup> January, 2021

TO WHOM IT MAY CONCERN

Dear Sir/ Madam,

RE: INTRODUCTION FOR MR MUGISHA MOSES TO CONDUCT RESEARCH IN YOUR ORGANIZATION

Greetings in the precious name of our Lord.

I wish to introduce to you the above-named person, who is a master's student pursuing Master of Business Administration in Oil & Gas Management, of Uganda Christian University in affiliation with the Institute of Petroleum Studies – Kampala (IPSK).

His proposal has been approved by our vetting committee and is in the process of collecting data. Mr Mugisha would wish to conduct research in your organization.

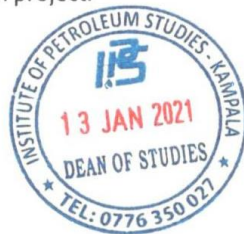
The title of his research is “Short term impact of upstream oil and gas activities on the welfare of people in Buliisa district.”

By copy of this letter, all respondents are notified that this study is for academic purposes and as an Institution, we request you to cooperate in facilitating this very interesting research project.

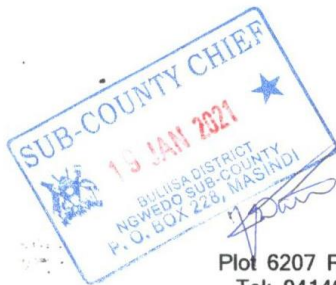
Sincerely,

  
James Mugerwa

DEAN OF STUDIES

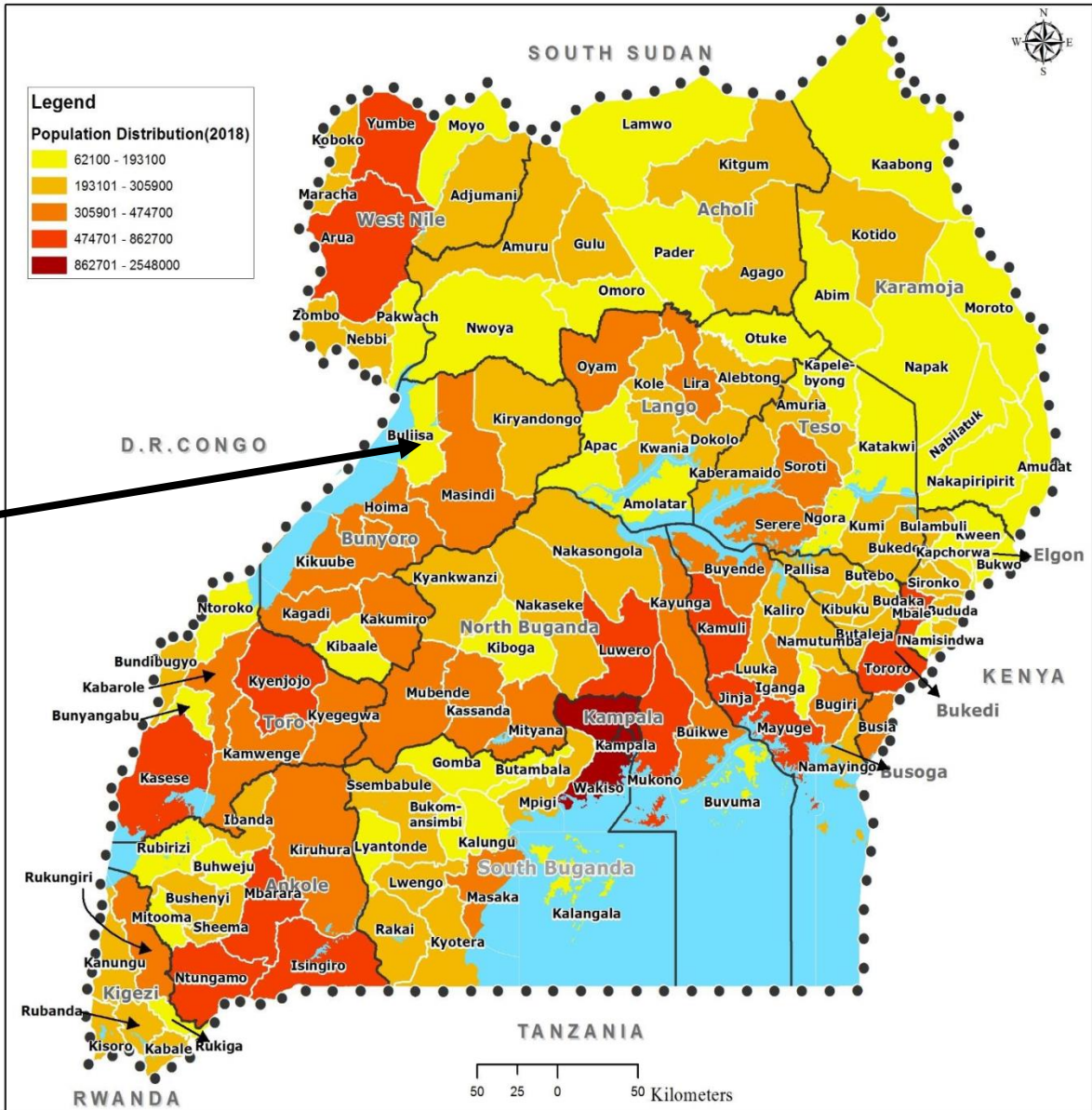


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BULIISA



Plot 6207 Rose Lane, Off tankhill road Muyenga Kampala - Uganda  
Tel: 0414695610 Email: info@ipsk.ac.ug Website: www.ipsk.ac.ug

Appendix 5: MAP OF UGANDA SHOWING LOCATION OF BULIISA DISTRICT



**KEY**



Buliisa District



**Appendix 6: Hospital constructed by Tullow oil**



**Appendix 7: Infrastructural developments such as roads, bridges in Buliisa District**



*Para bridge in Buliisa District has been reconstructed due to oil and gas activities in the District*



### Appendix 8: Work Plan

S/N	Activity	2020	2021							Responsible person	
		Dec	Jan	Feb	Mar	Apr	May	June	July		
1	Proposal defense and proposal submission										Investigator
2	Data collection and analysis										Investigator, statistician and research assistants
3.	Submission of dissertations										Investigator
4.	Internal examination										
5.	External examination										
6.	Submission to the Viva committee										Investigator
7.	Viva										Investigator
8.	Presentation of results to senate										Investigator
9.	Graduation										Investigator

### Appendix 9: Budget

<b>1</b>	<b>Stationary</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Total Cost</b>
A	Photocopying Paper	2 Reams	15,000	30,000
B	File Folders	3 Pcs	1000	3,000
C	Pens	4	1000	4,000
D	Flash Disk	2 GB	30,000	30,000
<b>2</b>	<b>Literature Search(Libraries, internet, primary data)</b>			<b>50,000</b>
3	Typing services			
a	Questionnaire	50	500	25,000
b	Proposal	3 Copies	20,000	60,000
c	Report	3 Copies	50,000	200,000
<b>4</b>	<b>Data Collection</b>			
a	Transport		70,000	70,000
b	Meals	5 Days	10,000	50,000
c	Sodas for appreciation	1	250,000	250,000
<b>5</b>	<b>Personnel</b>			
a	Data analyst/statistician	1		800,000
c	Research assistant	1		500,000
e	Typist/secretary	1		300,000
	<b>GRAND TOTAL</b>			<b>2,392,000</b>