# Determinants of How Land Acquisition Activities Influence Livelihoods in Lokichar Basin

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***Abstract-*** ***The Kenyan Ministry of Energy and Petroleum and Tullow Oil Plc, a global oil and gas exploration corporation with headquarters in London, United Kingdom, announced the discovery of oil to the Kenyan public in 2010. Tullow Oil Plc was formed in Tullow, Ireland. This study examined the impact of oil and gas exploration activities, such as land acquisition on the livelihoods of communities in the Lokichar Basin. The study used a cross-sectional survey design to draw inferences on how oil and gas exploration activities influenced people's livelihoods both positively and negatively. The sample population for this study was determined using random sampling based on Singh and Masuku's 2014 sample determination formula and stratified sampling. The aim was to provide thorough recommendations on how exploration projects could use sustainable livelihood approaches to develop marginalized communities. The findings indicate that although oil exploration can bring economic advantages, such as enhanced infrastructure and job creation, it also presents significant challenges. Key issues include land displacement and insufficient compensation for affected communities, which are major concerns. The study points out the negative impacts of seismic activities on health, education, and environmental sustainability, which threaten the traditional livelihoods of local populations, particularly in agriculture and pastoralism. The research underscores the need to incorporate sustainable livelihood strategies into oil exploration projects to alleviate adverse effects and strengthen community resilience. Recommendations focus on promoting community involvement in decision-making, ensuring fair compensation, and establishing effective Corporate Social Responsibility (CSR) initiatives that meet local requirements. This study adds to the body of knowledge regarding the relationship between natural resource exploitation and community well-being, providing valuable insights for policymakers, stakeholders, and future research aimed at achieving a balance between economic growth and social equity in resource-abundant areas.***

***Indexed Terms-*** ***Oil Exploration, Livelihoods, Land Acquisition, LokicharBasin, Sustainable Approaches, Community Resilience and Economic Impact JEL: O11, O15, I22***

## I. INTRODUCTION

Experts engage in oil exploration to obtain hydrocarbon deposits in a region with promising oil prospects. The goal of oil (black gold) exploration projects is to increase the quality of life for the local communities that reside in oil-rich regions (Ejiba et al. 2016). Demand for energy sources has increased globally, which has led to a growth in the production of crude oil, the primary source of energy, without taking into account the effects on livelihoods (Khwedim, 2016). A study was carried out in Rumaila oil field, Basra, Southern Iraq, to find out how much heavy metals and polycyclic aromatic hydrocarbons (PAHs) were in the soil. Findings showed that a crude oil spill had caused a significant concentration of PAHs in the soil, specifically. Thamer, *et al.,* (2013), high concentrations of heavy metals, such as Co, Cr, Ni, Pb, V, and B, that were above international standard limits were found in soil.

The two most frequent forms of pollution caused by oil exploration and extraction in the Niger Delta, oil spillage and gas flaring, affect the area in Nigeria. According to Ejiba, Onya, and Adams (2016), the situation has had an impact on the living conditions of those who rely entirely on the environment for their survival, including those who engage in fishing, agriculture, the provision of portable water, recreational activities like swimming, and the maintenance of green, clean land and waterways. The River Niger Delta is considered one of the largest

wetlands in Africa. It is one of the top ten wetlands and marine ecosystems in the world. According to Aigbedion & Iyayi (2007), oil leaks have poisoned the region and destroyed its biodiversity, turning it into an ecological wasteland. Fish disappear into deeper waters due to seismic activity scaring them away and chemical emissions and spills from the oil industry that contaminate lake water. (2011) Udoinyang and Igboekwe.

The first reports of oil seepages in Uganda date back to the early 1920s, but extensive exploration work did not begin until the 1980s due to changes in colonial laws (Manyak, 2015). The Petroleum Exploration and Production Act, which was passed in Uganda in 1985, allowed foreign businesses to be licensed to conduct seismic surveys and drilling. There were more exploration and licensing activities during the first five years (Kyosimire, 2021). In 2006, exploration by Australian Hardman Resources and British Tullow Oil in the Albertine Graben yielded commercially viable oil resources, which Uganda verified. The race to discover and exploit oil in Western Uganda was sparked by this. The Albertine Graben is currently separated into several exploration regions, of which the Ugandan government has granted licenses to five oil exploration companies (Bainomugisha, Kivengyere, & Tusasirwe, 2006). These areas are located both onshore and offshore in and around Lake Albert.

According to Rabeeh *et al.,* (2006), oil and gas exploration has an impact on Indigenous community land ownership by exposing oil leakages and causing deforestation by clearing forests to create access routes to new areas. These actions result in the disappearance of hunting grounds, the extinction of significant tree species, and the loss of herbs that have been a significant source of medicinal herbs for most rural women. The destruction of this source of income in the name of oil exploration makes it challenging for women to make a living. Following oil and gas development activities, men who use forests as community grazing places and hunting grounds are also impacted (Kadafa & Ayuba, 2021). Oil exploration pollution damages local populations' means of subsistence, making it harder for current and future generations to earn a living from it (Thompson, 2011).

The first onshore well in the Lokichar basin, Ngamia-I, located in Block 10BB, started exploration operations in January 2012. From the whole 4-billion-barrel Stock Tank Oil Initially in Place (STOIIP) since then, Tullow has discovered more than 1,200 million barrels of oil, giving this basin the potential to develop into a substantial oil province in the Rift Valley (Tullow, 2018). Thirteen exploration and appraisal wells have already been drilled there by Tullow (Omondi, 2013). Late in 2017, Tullow started Front End Engineering Designs (FEED) for upstream oil operations and field development. This was done to support the Turkana operations' drilling, operational efforts, Final Investment Decision (FID), and Full Field Development (FFD). Many locals believe they have immediately found their route to success whenever oil is discovered in a location. Recent events, particularly in sub-Saharan Africa, however, show that inefficient management of oil resources can seriously impair the lives of locals (Deloitte, 2013; 2016).

The Turkana oil discovery sparked a lot of interest in Kenya, which has several permitted blocks but hasn't yet developed any commercial oil. As part of the 2015 Energy and Petroleum Act, Kenya enacted new regulations for the distribution of natural resource profits. Ngamia-1 exploration well in Lokichar, Kenya, signaled the beginning of a sizable program of drilling activities over the property. The second onshore tertiary rift basin in East Africa developed by Tullow in 2012 was successfully penetrated by the Ngamia-1 well, which found more than 200 meters of net oil pay (Tullow Oil Report, 2019). The potential connections between exploration projects as well as community livelihood development, in pastoralist settings, have received little attention from academics like (Adeola *et al.,* 2021). Over the past 20 years, there has been significant progress in improving the livelihood of less fortunate people, particularly in underserved areas, but these scholars have been unable to agree on how exploration projects can affect the livelihood of the immediate communities (Okoth, 2012).

## II. PROBLEM STATEMENT

Despite the economic potential associated with oil exploration in Kenya's Lokichar Basin, the process of

land acquisition has generated widespread concerns about its adverse effects on local livelihoods. Communities in the region rely heavily on pastoralism, subsistence farming, and access to communal land for survival. However, oil-related land acquisitions have led to displacement, restricted land access, and loss of grazing areas, disrupting traditional livelihood systems. Many affected residents report inadequate compensation, limited community participation in decision-making, and lack of transparency in land dealings. Although legal and policy frameworks exist to govern land acquisition and safeguard community interests, their enforcement has been inconsistent and often favors external stakeholders over local populations. These issues are compounded by weak institutional capacity and limited awareness among communities of their rights.

This study seeks to examine the key determinants influencing how land acquisition activities impact livelihoods in the Lokichar Basin, with the aim of informing more equitable and sustainable policy responses.

## III. PURPOSE OF THE STUDY

This study investigates the determinants of how land acquisition for oil exploration influences livelihoods in the Lokichar Basin. It focuses on identifying key drivers such as compensation adequacy, community participation, and legal safeguards that shape outcomes for affected households. The central problem is that although exploration projects are framed as engines for local development, they often exacerbate existing vulnerabilities due to inadequate planning, engagement, and sustainability measures.

## IV. RATIONALE OF THE STUDY

The rationale behind this research lies in the urgent need to bridge the knowledge gap regarding the real impacts of exploration-induced land acquisitions on communities in pastoral regions. Findings from this study aim to inform policy and practice, ensuring that land acquisition practices align with sustainable livelihood frameworks and foster equitable development.

## V. LITERATURE REVIEW

In 2012 UNEP established that the oil and gas sector is divided into the upstream (exploration and production) as well as downstream parts. The document also highlights how being aware of the processes at play is crucial for understanding how oil development might have an impact on the environment. It displays exploration-related activities such as surveys, drilling, evaluation, development, and production, as well as decommissioning and rehabilitation. Land surveying, exploratory well drilling, as well as seismic acquisition are all part of oil and gas exploration activities, according to Cordaid (2016). Finding oil and gas resources is the goal of surveying and mapping geologic features on the surface and below. Seismic data collection is done to identify economically viable oil and gas reserves as well as the best place to drill exploration wells and test the formation. In these global activities, engineers determine the availability and quality of oil. When determining where oil and gas are, wells are always drilled and delineated to assess the extent and thickness of the oil and gas-bearing reservoirs.

As speculators purchase land in oil-rich regions to resell back at an inflated price, oil exploration is quickly becoming a key motivator for marginalized areas (Cosmas, Samson & Erick, 2019). Strong multinational corporations persuade the respective governments to engage in agreements in secret because of the oil deposits in these oil-rich areas (Okoth, 2012). The majority of mining agreements are still secretive, they are frequently negotiated by multinational corporations, powerful politicians, and other figures that have taken control of the state's institutions and are moreover able to influence lawmakers, generally referred to as "the deep state" (Davis, 2019). According to Nanok and Onyango (2017), the central government, has the authority to give oil concessions. Land leasing in oil-rich regions therefore results in the state government and oil drilling companies dominating the community land and environment. The possibility of families being relocated from their community lands makes the issue worse. Those who are directly displaced receive little or no compensation. Due to this, the villagers who formerly moved freely with their livestock as did pastoral nomads are now alienated from their homes.

According to Okoth (2012), oil exploration concessions are granted without considering locals whose livelihoods are reliant on the land in oil development zones. Typically, the local communities are unaware of the sales of mining and land rights, as well as which business is awarded exploratory licenses and contracts (Nanok & Onyango, 2017). Even worse, they must give up their ancestral shrines and grazing areas to make room for pipelines and oil drilling. These global corporations have sole control over both active drilling and exploration. According to Davis's 2019 recommendation, governments and multinational corporations should interact with residents more effectively as citizens with rights and obligations to ensure social stability in oil exploration areas. The relevant authorities should pass a proper law governing community land acquisition that requires multinational corporations to pay local taxes when conducting oil exploration. There shouldn't be any tax holidays or special tax treatment to allow oil drilling multinationals to profit from assets like oil (Deloitte, 2013).

The local community cannot assert to have any personal stake in the usage and outcomes of the use of their property, as demonstrated by the Nigerian Property Usage Act of 1978, (Janpeter, Locham & Jurgen, 2018). Because of this regulation, oil companies frequently shift blame for environmental degradation to the government. In exchange, the government frequently abdicates this role to multinational corporations (MNCs), claiming that it is a component of their social responsibility obligations. Anyhow, this finger-pointing fails to address the communities that produce oil's concerns about environmental governance, which encourages activism and militancy (Lauwo et al., 2016). Since thousands were forcibly relocated to make room for a low-sulfur crude oil venture in south-central Sudan, forced resettlements are linked to the growth of extractive industries in South Sudan, according to the Sudan Tribune in 2009. The community's residents lost cherished ancestral houses as a result of this forced displacement, perished from contamination, and had their livelihoods threatened. Forced relocations that endangered the livelihoods of women who grow food crops have put an unnecessary burden on them and their families as they seek to find alternate means of support for their already underfunded households.

The 2012 development of a national policy for Northern Kenya and other arid lands intends to minimize overgrazing and enhance natural resource management, with forage management playing a vital role. Additionally, the policy aims to lessen the area's ongoing insecurity and assure efficient management of the limited water supply in terms of both quality and quantity. The Petroleum Act of 2019 offers a comprehensive legislative tool to regulate the industry. The legislation guarantees an equitable distribution of oil revenue utilizing a fair share mechanism among local governments, county governments, and national governments. Additionally, it is anticipated that the Act would outline precisely which sectors upstream, midstream, and downstream shall play what roles in formulating policies.

## VI. THEORETICAL FRAMEWORK

### Sustainable Livelihood Theory

Robert Chambers' work from the middle of the 1980s is where livelihood thinking first appeared. To increase the effectiveness of development cooperation, Chambers created the concept of "Sustainable Livelihoods" after understanding that traditional development paradigms could not produce the desired results and that humanity was also dealing with huge population pressure. Sustainable Livelihoods Approach (SLA), created by the British Department for International Development (DFID), is built on these ideas (Kollmair, 2002; Knutsson, 2006).

The assets in this theory, according to (Morse et al, 2009), represent basic building blocks of this theory, such as social education and health support. People's access to their possessions is governed by their vulnerable environment, which includes scarce resources like water and grazing grounds and security concerns. There have been frameworks created for sustainable livelihoods, and this study used the DFID framework, which is now widely accepted. The sustainable livelihood framework has three components, (DFID, 2008). These are the assets that form the foundation of one's livelihood. The vulnerability context, as well as policy, institutions, and procedures, is the second. These form the link between livelihood strategies as well as outcomes.

The sustainable livelihood approach fits the study's theme perfectly because it makes it clear how various oil-related activities, like land displacement and the degradation of dry forest vegetation, may affect certain livelihood-supporting activities, like pastoralism and small-scale farming, as well as other social and physical infrastructures in the oil production

Conceptual Framework.

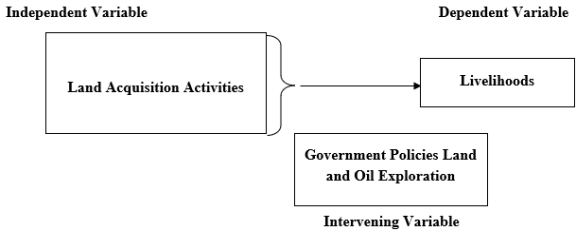


Figure 1: Conceptual Framework

The conceptual framework demonstrates how independent variables like land acquisition activities, seismic and oil drilling operations, and CSR initiatives affect dependent variables like the activities that communities in the Lokichar Basin engage in to support their livelihoods. Government initiatives including the National Land Policy of 2016, the Community Land Act of 2016, the Petroleum Act of 2019, and the 2010 Constitution serve as intervening variables that affect both the independent and dependent variables.

## VII. RESEARCH METHODOLOGY

The study used a cross-sectional study design. According to Stephanie (2013), cross-sectional surveys involve gathering information from the target respondents all at once. The implementation of this design combined quantitative and qualitative methods. The study gathered respondents' ideas, opinions, and comments, which lent themselves well to interpretation and presentation using narratives. This supported the qualitative strategy. The study was carried out in the Lokichar Basin, specifically in the Ngamia/Amosing oil fields area in Turkana County, covering oil wells set up between Turkana South and Turkana East sub-counties in Kenya.

fields. It is incredibly common for locals to give up their traditional means of subsistence in favor of employment in the oil industry. Given that employment in the oil sector is cyclical, the issue of the sustainability of the livelihoods of the locals should constantly be raised (Gyagri *et al.,* 2017).

## VIII. TARGET POPULATION

The target population was the entire group in whom the researcher was interested or the group from which the researcher hoped to conclude (Mugenda & Mugenda, 2003). Therefore, the target population for this study included household heads living in the villages around the exploration areas (Kapese, Kamarese, Kasuroi, and Lomokamar), kraal elders, school heads, community health volunteers, and the local administration of the mentioned villages. The household heads provided insights into the influence of oil and gas exploration activities on land and health service delivery, while the kraal elders and local administration offered the community's perspective on oil and gas exploration activities. The heads of the schools discussed the impact of oil and gas development activities on the education of nearby communities. Community health volunteers noted how oil and gas exploration activities affected the health services provided to communities in the Lokichar Basin.

## IX. SAMPLING PROCEDURES AND TECHNIQUES

Mugenda & Mugenda (2003) stated that sampling was the process of choosing a subset of the population from whom research would be conducted. The amalgam of simple random, systematic random, and sampling proportion to size techniques was used in the selection of respondents for household heads' questionnaires, key informant interviews, and focus group discussions. Stratified sampling was employed to obtain samples from the community's kraal elders, while purposive sampling was used to obtain samples from local leaders and administrators. The snowball sampling technique was utilized to obtain school heads and community health volunteers for this study. Simple random sampling was used to randomly select the household heads according to their community identity. Singh and Masuku's (2014) sample

determination formula was applied to find the desired sample of household heads for this study.

## X. SAMPLE POPULATION

The sample population for this study was drawn randomly from the four abutting villages to the oil wells. These villages were Kapese, Kamarese, Kasuroi, and Lomokamar. Key informants and discussants for focus group discussions were chosen based on their expertise in the Lokichar Basin community and oil development in the area. For the household interviews, the researchers used simple random sampling, obtaining the sample using Singh and Masuku's (2014) sample determination formula.

Table 1:Target Population

| S/no | Village | Population size | Households |
|---|---|---|---|
| 1 | Lomokamar | 3777 | 630 |
| 2 | Kaasuroi | 2111 | 352 |
| 3 | Kapese | 3850 | 642 |
| 4 | Kamarese | 2007 | 335 |
| | Total | 11745 | 1958 |

*Source: KNBS, 2109*

The total number of participants for this study was 360, which included household heads and kraal representatives sampled for the study. The study used simple random sampling for the selection of community members and kraal representatives.

Table 2: Sample Population

| Respondents | Population | Data Collection Instruments | Sampling method | Participants |
|---|---|---|---|---|
| Household heads | 1958 | Questionnaire | Random sampling | 333 |
| Total Participants | | | | 333 |

## XI. RESEARCH INSTRUMENTS

The researcher used a mixture of qualitative and quantitative techniques. Household questionnaires were utilized to draw tables of frequencies of data, while key informant interviews (KII) and focus group discussion (FGD) questionnaires served as data collection tools for qualitative narratives. Questionnaires were considered the most effective research method for this study because they enabled the researcher to gather data from a sizable sample of people with a variety of backgrounds; the findings remained confidential, saved time, and minimized bias since they were provided in written form. Information from the communities was gathered through questionnaires. The participants in this survey were asked to rate their level of belief on a Likert scale.

Likert distinguished between a scale proper, which resulted from the sum of responses to a group of items, and the scoring system for responses along a range. The formats for a conventional five-level Likert item included highly disagree, disagree, neither agree nor disagree, agree, and highly agree.

## XII. DATA COLLECTION METHODS AND PROCEDURES.

Regardless of the field to which they belonged, data collection was defined as a systematic way of gathering, collecting, measuring, and analyzing accurate information to support research carried out by teams of specialists (Stephanie, 2013). For this study, the researcher gathered data using both qualitative (KII and FGD) and quantitative (household questionnaire) methodologies. To conduct the research, the researcher first obtained approval from Turkana University, the Ministry of Education, and NACOST. The management of Tullow Oil Company and local governments in the communities then granted the researcher authorization to distribute the surveys to respondents. To ensure effective data

collection, the researcher distributed questionnaires and immediately collected them following the exercise.

## XII. DATA ANALYSIS TECHNIQUES AND PROCEDURES

By producing summaries, searching for trends, and using statistical approaches, data analysis aimed to break down large amounts of information into manageable bits (Cooper and Schindler, 2011). The study used both qualitative and quantitative data; descriptive and inferential statistics were adopted for data analysis. Obtained data underwent coding and tabulation and was later presented in the form of charts and graphs using Microsoft Excel (Microsoft 365) to assist in data analysis. The testing of the relationship between the variables was conducted using inferential statistics through a multiple regression model, while correlation analysis was used to determine the degree of relationship between the variables.

Table 3: Data Collection Analysis Distribution

| Objective | Tool | Data | Test |
|---|---|---|---|
| Objective one | Household questionnaire | Percentages and frequencies | Descriptive |

## XIV. RESEARCH RESULTS AND DISCUSSION

### How Land Acquisition Activities Influence Livelihoods in the Lokichar Basin

The first objective aimed at determining how land acquisition activities influence livelihoods in the Lokichar Basin. Respondents were requested to indicate their level of agreement with the listed statements on how oil drilling in Turkana County's Lokichar Basin has affected land acquisition among the pastoralist population in the Lokichar Basin. The results are presented in Table 4.

Table 4: How Land Acquisition Activities Influence Livelihoods in the Lokichar Basin

| Statement | | n | % | Mean | STD |
|---|---|---|---|---|---|
| Oil exploration comes along with the displacement of the pastoralists, hence the loss of land and change of livelihoods. | Strongly Disagree | 217 | 77.2 | 1.89 | .440 |
| | Disagree | 48 | 17.1 | | |
| | Undecided | 16 | 5.7 | | |
| Exploratory well drilling can negatively impact the environment and land quality. | Agree | 79 | 28.1 | 4.33 | .896 |
| | Strongly Agree | 202 | 71.9 | | |
| Land exploration activities are essential for the sustainable development of oil and gas resources | Agree | 95 | 33.8 | 4.45 | .881 |
| | Disagree | 11 | 3.9 | | |
| | Strongly Agree | 143 | 50.9 | | |
| | Undecided | 32 | 11.4 | | |
| Resettlement affects the cultural and spiritual of the pastoralists | Agree | 74 | 26.3 | 2.38 | .698 |
| | Disagree | 48 | 17.1 | | |
| | Strongly Agree | 127 | 45.2 | | |
| | Strongly Disagree | 16 | 5.7 | | |
| | Undecided | 16 | 5.7 | | |
| Oil exploration leads to the influx of people, hence conflict of benefit sharing | Agree | 27 | 9.6 | 1.95 | .552 |
| | Disagree | 16 | 5.7 | | |
| | Strongly Agree | 222 | 79.0 | | |
| | Undecided | 16 | 5.7 | | |
| Communities living in areas with active land exploration activities are often consulted and compensated for land use changes. | Agree | 80 | 28.5 | 2.37 | .781 |
| | Disagree | 27 | 9.6 | | |
| | Strongly Agree | 142 | 50.5 | | |

| | | | | | |
|---|---|---|---|---|---|
| | Strongly Disagree | 16 | 5.7 | | |
| | Undecided | 16 | 5.7 | | |
| Governments and regulatory bodies play a significant role in ensuring responsible land exploration practices. | Agree | 138 | 49.1 | 2.70 | 1.001 |
| | Disagree | 16 | 5.7 | | |
| | Strongly Agree | 127 | 45.2 | | |

*Source: Field Data 2024*

Findings from Table 4 show how land acquisition activities influence livelihoods among residents in the Lokichar Basin. The majority of respondents (77.2%) strongly disagree that oil exploration leads to the displacement of pastoralists, loss of land, and changes in livelihoods. This finding suggests that the perception among the respondents is that oil exploration activities have not resulted in significant negative impacts on pastoralists' land and livelihoods. However, it is important to note that a portion of respondents (17.1%) still hold a disagree or undecided stance, indicating the need for further examination and consideration of potential impacts.

A significant number of respondents (71.9%) strongly agree that exploratory well drilling can have a negative impact on the environment and land quality. This finding highlights the concern among respondents regarding the potential environmental consequences associated with oil exploration activities. It suggests that there is a perceived risk of environmental harm resulting from drilling activities, emphasizing the importance of environmental mitigation and protection measures in oil exploration operations. The findings indicate a mixed perception regarding the importance of land exploration activities for the sustainable development of oil and gas resources.

While a substantial number of respondents (50.9%) strongly agree that land exploration is essential for sustainable development, a smaller proportion (3.9%) disagrees. This suggests differing opinions on the role of land exploration in balancing economic development and environmental concerns. Further exploration of these perspectives can provide insights into potential trade-offs and approaches to sustainable resource development.

The majority of respondents (45.2%) strongly agree that resettlement affects the cultural and spiritual aspects of pastoralists. This finding highlights the recognition of the potential disruption and loss of cultural and spiritual practices associated with resettlement due to oil exploration activities. It underscores the importance of considering the socio-cultural impacts on local communities and implementing appropriate measures to address these concerns. A significant number of respondents (79.0%) strongly agree that oil exploration leads to the influx of people, resulting in conflicts related to benefit sharing. This finding suggests that the respondents perceive the potential for conflicts to arise from the distribution of benefits associated with oil exploration activities. It emphasizes the need for transparent and equitable benefit-sharing mechanisms to mitigate conflicts and ensure the fair distribution of economic gains among all stakeholders.

The findings indicate that a majority of respondents (45.2% strongly agree, 49.1% agree) recognize the significant role of governments and regulatory bodies in ensuring responsible land exploration practices. This highlights the importance of effective governance, regulation, and oversight in mitigating potential negative impacts and ensuring adherence to environmental and social standards in the oil exploration sector.

## XV. GOVERNMENT POLICY

The study also aimed at determining the influence of government policy on oil exploration in Lokichar Basin. Respondents were requested to indicate their level of agreement on the listed statements on how government policy influence oil exploration activities in Turkana County's Lokichar Basin. The results are presented in Table 5.

Table 5: Government Policy

| Statement | Response | N | % | Mean | SD |
|---|---|---|---|---|---|
| The government's policies on land acquisition for oil exploration activities in the Lokichar Basin are fair and transparent. | Agree | 127 | 45.2 | 1.91 | .367 |
| | Disagree | 43 | 15.3 | | |
| | Strongly Agree | 95 | 33.8 | | |
| | Strongly Disagree | 16 | 5.7 | | |
| The government provides adequate compensation to local communities whose land is used for oil exploration in the Lokichar Basin. | Agree | 144 | 51.2 | 1.72 | .689 |
| | Disagree | 11 | 3.9 | | |
| | Strongly Agree | 110 | 39.1 | | |
| | Undecided | 16 | 5.7 | | |
| The government's regulations on environmental protection during oil exploration in the Lokichar Basin are effective in minimizing negative impacts. | Agree | 95 | 33.8 | 1.82 | .375 |
| | Disagree | 48 | 17.1 | | |
| | Strongly Agree | 63 | 22.4 | | |
| | Strongly Disagree | 27 | 9.6 | | |
| | Undecided | 48 | 17.1 | | |
| The government involves local communities in decision-making processes related to oil exploration activities in the Lokichar Basin. | Agree | 143 | 50.9 | 1.67 | .824 |
| | Disagree | 16 | 5.7 | | |
| | Strongly Agree | 122 | 43.4 | | |
| The government's policies on land use and oil exploration in the Lokichar Basin prioritize the interests of local communities. | Agree | 80 | 28.5 | 1.65 | .527 |
| | Strongly Agree | 190 | 67.6 | | |
| | Strongly Disagree | 11 | 3.9 | | |

## XVI. LIVELIHOOD

The study also aimed at determining the influence of government policy on oil exploration in Lokichar Basin. Respondents were requested to indicate their level of agreement on the listed statements on how government policy influence oil exploration activities in Turkana County's Lokichar Basin. The results are presented in Table 6.

Table 6: Livelihood

| Statement | Response | Frequency | Percent | Mean | SD |
|---|---|---|---|---|---|
| Oil exploration activities have improved the economic well-being of local communities in the Lokichar Basin. | Agree | 96 | 34.2 | 2.13 | .821 |
| | Disagree | 96 | 34.2 | | |
| | Strongly Agree | 73 | 26.0 | | |
| | Undecided | 16 | 5.7 | | |
| Oil exploration has led to an increase in employment opportunities for people from the local communities in the Lokichar Basin. | Agree | 95 | 33.8 | 3.11 | .791 |
| | Disagree | 107 | 38.1 | | |
| | Strongly Agree | 63 | 22.4 | | |
| | Strongly Disagree | 16 | 5.7 | | |
| Oil exploration has disrupted the traditional livelihoods (e.g. pastoralism, agriculture) of local communities in the Lokichar Basin. | Agree | 111 | 39.5 | 2.93 | .741 |
| | Disagree | 96 | 34.2 | | |
| | Strongly Agree | 58 | 20.6 | | |
| | Strongly Disagree | 16 | 5.7 | | |
| Local communities in the Lokichar Basin have benefited from the infrastructure | Agree | 96 | 34.2 | 2.24 | .618 |
| | Disagree | 128 | 45.6 | | |

| | | | | | |
|---|---|---|---|---|---|
| (roads, water, electricity) developed for oil exploration. | Strongly Agree | 57 | 20.3 | | |
| The impact of oil exploration on the livelihoods of local communities in the Lokichar Basin has been positive. | Agree | 80 | 28.5 | 2.52 | .729 |
| | Disagree | 16 | 5.7 | | |
| | Strongly Agree | 185 | 65.8 | | |

Statistical Test Results

The study performed one-way t test statistics and the results are presented as shown in table 7 below.

Table 7: T-Test Results (One-Sample)

| Variable | Mean | Std Dev | t-Statistic | | p-Value |
|---|---|---|---|---|---|
| Oil exploration displaces pastoralists | 1.89 | 0.44 | -25.98 | | .00522 |

The results indicate that the mean response for the statement "Oil exploration displaces pastoralists" is 1.89, with a standard deviation of 0.44. The t-statistic of -25.98 shows a strong deviation from the neutral midpoint (3), suggesting that respondents overwhelmingly disagree with the statement. The p-value of 0.00522 is statistically significant ($p<0.05p$), confirming that the mean response is significantly different from neutrality. This implies a strong consensus among respondents that oil exploration does, in fact, displace pastoralists, leading to changes in their livelihoods.

## CONCLUSIONS AND RECOMMENDATIONS

### How Land Acquisition Activities Influence Livelihoods in the Lokichar Basin

This study investigated how land acquisition activities influence the livelihoods of communities in the Lokichar Basin, Turkana County. The findings reveal a complex landscape of opinions among the respondents. A significant majority believe that oil exploration does not lead to the displacement of pastoralists or significant changes in their livelihoods, suggesting a perception of minimal negative impact. The study established concerns about the environmental impact of exploratory drilling are prevalent, with the majority of respondents acknowledging that such activities can negatively affect land quality and the environment. This highlights the perceived risks associated with oil exploration and underscores the necessity for effective environmental protection measures. The study also captured mixed views on the role of land exploration in sustainable development. While the majority see it as essential for economic growth, a smaller segment expresses skepticism, emphasizing the need to balance economic and environmental considerations.

Cultural and spiritual disruptions due to resettlement from oil activities were noted, with majority of respondents recognizing these impacts as significant. In addition, the study established that there is a belief that oil exploration leads to conflicts over benefit sharing, emphasizing the importance of transparent mechanisms for equitable distribution of resources. Finally, the findings stress the crucial role of governments and regulatory bodies in ensuring responsible exploration practices, highlighting the need for effective governance to mitigate negative impacts and uphold social and environmental standards within the oil sector.

## RECOMMENDATIONS

- The study recommends that oil companies should establish continuous dialogue with local communities to address concerns and ensure that the benefits of exploration are shared equitably.
- The study recommends that regulatory bodies must enforce stringent environmental regulations to mitigate the negative impacts of oil exploration on the local ecosystem.

- The study recommends that stakeholders should invest in community health and educational programs to offset the disruptions caused by exploration activities.

Recommendations for Future Research

- There is need to explore comparative studies between different regions affected by oil exploration to identify best practices and lessons learned that could inform policy and practice in Turkana County.

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