A RESEARCH BRIEF

THE IMPACTS OF THE LAKE ALBERT OIL PROJECT ON FISHERFOLK IN BULIISA AND KIKUUBE DISTRICTS IN UGANDA



AFRICA INSTITUTE FOR ENERGY GOVERNANCE (AFIEGO)

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The Kingfisher oil rig on Lake Albert has been implicated in hurting fisherfolk's livelihoods

Photo source: Petroleum Authority of Uganda

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Abstract

Lake Albert, locally known as Mwitazige, is one of the Great Lakes of Africa that lies within the Albertine Rift. The 5,300 sq. km lake (Sarnowski, 2004), which is shared between Uganda and the Democratic Republic of Congo (DRC), supports the most diverse commercial fisheries in Uganda. The lake is home to over 55 fish species (Wandera and Balirwa, 2010), ten of which are endemic (can only be found in Lake Albert).

The lake also contributes significantly to Uganda's fish production with available figures showing that the lake contributed 43% (Uganda Bureau of Statistics -UBOS- 2019) to the country's fish catch in 2018. Lake Victoria contributed 39.9% of the country's fish catch that year.

The lake also contributed 171,767,000 tonnes of fish in 2017, and was the highest contributor that year (Ministry of Agriculture, Animal Husbandry and Fisheries, 2018).

The lake is important to Uganda's fisheries sector, no doubt, and to the over 5 million people that are directly or indirectly employed in the fisheries sector in Uganda (Economic Policy Research Centre, 2020).

The lake is however facing pressures such as overfishing, population influx, plastic and other forms of pollution as well as oil and gas exploitation. In 2006, Uganda made commercial oil discoveries in the Lake Albert basin. The Ugandan government alongside China National Offshore Oil Corporation (CNOOC) and TotalEnergies decided to commercialise the oil discoveries through the Kingfisher and Tilenga projects.

The projects, alongside the East African Crude Oil Pipeline (EACOP), are collectively known as the Lake Albert Development project. The concentration of the Tilenga and Kingfisher oil project activities in the Lake Albert region has had impacts on fisherfolk.

Between November 2023 and March 2024, Africa Institute for Energy Governance (AFIEGO) conducted research to document the impact of the Kingfisher and Tilenga oil projects on fisherfolk operating on Lake Albert in Buliisa and Kikuube districts in Uganda. AFIEGO engaged in desktop reviews and conducted Focus Group Discussions (FGDs) with Lake Albert fisherfolk as well as Key Informant Interviews (KIIs) with local government leaders.

The research documented the following challenges that are being experienced by fisherfolk operating on Lake Albert in Buliisa and Kikuube districts: displacement of fisherfolk for the Kingfisher oil project with low compensation rates being offered leading to some fishermen leaving landing sites on Lake Albert, thus losing their livelihoods; historical pollution from the oil exploration phase in the Kingfisher project area that contaminated lagoons which led to disappearance of fish from the lagoons; and loss of access to fishing grounds in the Kingfisher project area due to restrictions barring fishermen from fishing from some parts of the lake during certain periods.

Other challenges include: light and noise pollution from the Kingfisher drilling activities that affects fishermen's fish catch and divers' health; flash floods or water run-off from the Tilenga Industrial Area that pollutes Lake Albert; and oil-induced population influx that has created competition, resulting in higher prices for fish, thereby affecting fishmongers, majority of whom are women.

Yet other challenges include militarisation of Lake Albert by the Ugandan government leading to loss of livelihoods for fisherfolk who cannot meet the stringent standards set for fisherfolk operating on Lake Albert and other lakes; insecurity, which affects women the most, due to fisherfolk losing their livelihoods and others.

This research found that the fisherfolk are employing the following coping strategies: borrowing money to take care of family needs, engaging in causal work *(bupakasi)* through which some fisherfolk earn Shs. 3,000 (USD 0.76) per job and agricultural work though some fisherfolk note that flash floods from the Tilenga Industrial Area destroyed their gardens and they were not compensated.

Others who are engaged in farming noted that animals from Murchison Falls National Park (MFNP) destroyed all their crops during the last farming season. The Uganda Wildlife Authority (UWA) was yet to compensate the fisherfolk-turned-farmers by November 2023.

This research brief recommends that relevant government agencies undertake further studies to assess the impact of the Lake Albert oil activities on fisherfolk and key biodiversity resources on which the Lake Albert fisheries thrive. Fisherfolk should be compensated by CNOOC and TotalEnergies for the losses suffered due to the oil sector activities. Measures should also be taken by relevant government agencies to ensure that oil activities stop harming Lake Albert, and the fisherfolk that depend on it.



Fisherfolk and others that operate on Lake Albert during and after an FGD in November 2023

1.0 Introduction and background

Lake Albert, locally known as Mwitazige, is one of the Great Lakes of Africa that lies within the Albertine Rift. The lake has a surface area of about 5, 300 sq. km (Sarnowski, 2004) and is shared between Uganda and the Democratic Republic of Congo (DRC). 54% of the surface area of the lake is found in Uganda while 46% is found in the DRC (Walker, 1972).

In Uganda, Lake Albert is shared amongst six districts including Nebbi, Buliisa, Hoima, Kikuube, Kibaale and Ntoroko. Besides being a major source of water, employment, food, and income to approximately 3 million people living in the aforementioned districts, the lake is one of the largest fisheries or source of fish in Uganda (UBOS, 2019).

Worth noting is that Lake Albert supports the most diverse commercial fisheries in Uganda with the lake being home to over 55 fish species (Wandera and Balirwa, 2010), ten of which are endemic to Lake Albert.

The endemic species in the lake include the Albert Lates (Lates macrophthalmus), also known as Game fish, which is listed as endangered on the International Union for the Conservation of Nature (IUCN) Red List (Natungonza and Musinguzi, 2022).

Other species of fish found in Lake Albert include the Elongated Tiger Fish (Hydrocynus forskahlii), locally known as Ngassa, Nile perch (Lates Niloticus), Catfish (Bagrus docmak), locally known as Semutundu, and Tetra Nurse (Brycinus nurse) among others (Wandera and Balirwa, 2010).

Oil developments

In 2006, commercial oil discoveries were made in the Lake Albert basin in Uganda (Petroleum Authority of Uganda, 2024). The Ugandan government, working alongside TotalEnergies and China National Offshore Oil Corporation (CNOOC), decided to commercialise the oil discoveries through two oil extraction projects, the Tilenga and Kingfisher, as well as a planned crude oil pipeline, the East African Crude Oil Pipeline (EACOP).

The Tilenga oil project is located in Buliisa and Nwoya districts in Uganda (TotalEnergies, 2024). Conversely, the Kingfisher oil project is located in Kikuube and Hoima districts in Uganda (Petroleum Authority of Uganda, 2024). The EACOP will traverse ten districts in Uganda, and more in Tanzania.

An oil refinery in Hoima district is planned, though the Ugandan government has struggled to find investors for the project (Barigaba, 2023). Collectively, the above projects are known as the Lake Albert Development Project.

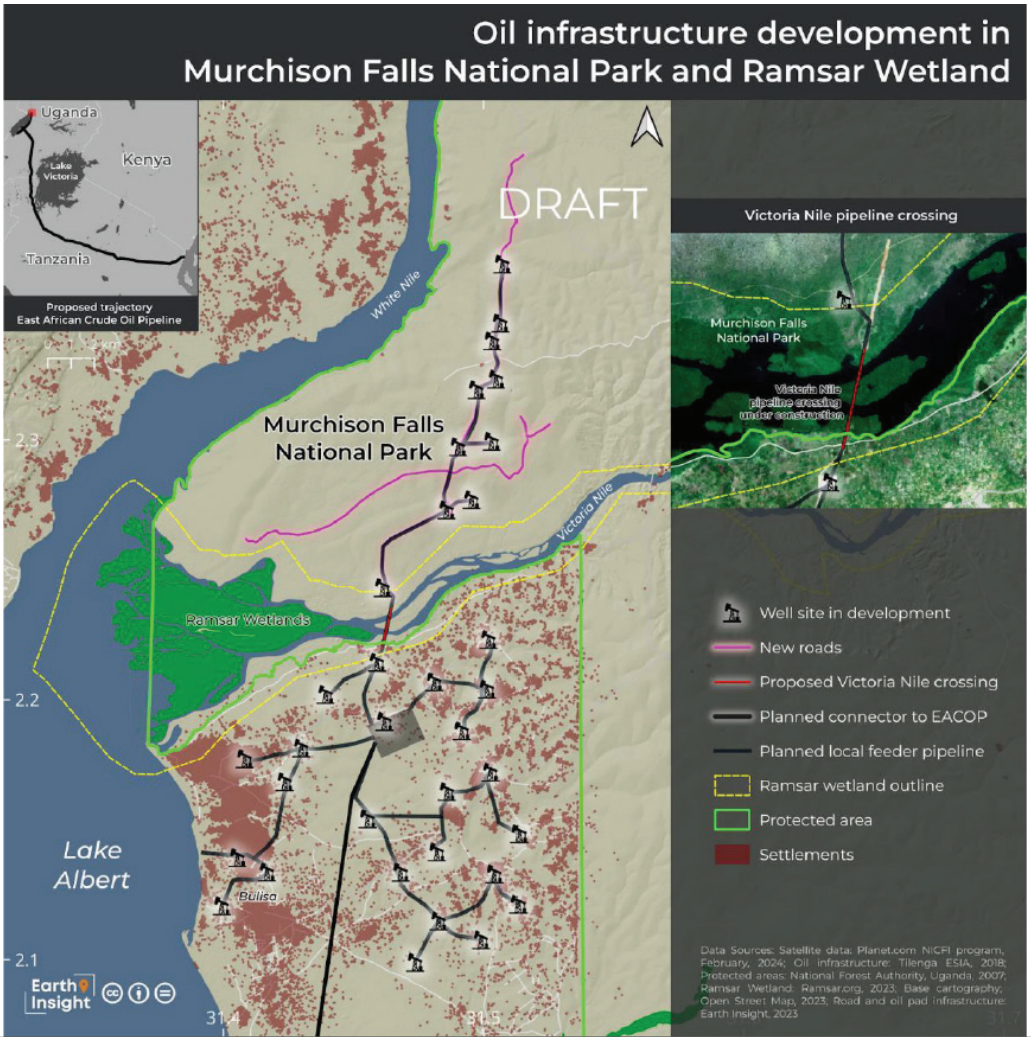
In 2019, the project progressed to the development stage (Directorate of Petroleum, 2019) that is characterised by setting up of the infrastructure needed to enable oil extraction and transportation. Drilling rigs have been assembled with the Kingfisher oil drilling rig being launched in January 2023 by Uganda's president (Uganda National Oil Company, 2023). Worth noting is that the Kingfisher oil field is about 15kms long and 3kms wide. It is also about 2kms below Lake Albert (Uganda National Oil Company, 2023). This will necessitate drilling for oil from within Lake Albert.

Furthermore, the development of wellpads for the Kingfisher oil project has either been completed or works are ongoing (Petroleum Authority of Uganda, 2024). The Kingfisher oil project is operated by CNOOC.

Drilling under the Tilenga project in Murchison Falls National Park (MFNP) commenced in June 2023 (Radio France International, 2023). Satellite images also show that development of wellpads in the national park and elsewhere are ongoing under the Tilenga oil project.

Some of the wellpads are located within the boundaries of the Murchison Falls - Albert Delta Ramsar site on the Victoria Nile in MFNP. The Tilenga oil project is operated by TotalEnergies. Further, early, or civil works to enable development of two Central Processing Facilities (CPFs), feeder pipelines and others are ongoing in Buliisa and Kikuube districts in the Lake Albert area.

The oil infrastructural development activities and displacement of people has had an impact on fisherfolk operating on Lake Albert, as this research brief will demonstrate.



2.0 Problem Statement

Lake Albert contributes significantly to Uganda's fish production. However, like other large inland water bodies in East Africa, the lake faces many challenges including overfishing (UBOS 2018), overpopulation and plastic pollution (Asiimwe and Nuwagaba, 2023).

The lake is also under-studied, leading to a critical knowledge gap on the fisheries of the lake (Nakiyende et al, 2023). The fisherfolk operating on the lake also experience challenges such as high cost of fishing gears. Further, fishermen report that the militarisation of the lake characterised by the Fisheries Protection Unit (FPU) of the Uganda Peoples' Defense Forces (UPDF) maintaining forces on the lake while destroying fishermen's gear is a challenge.

A combination of the above factors, coupled with poor saving cultures makes the Lake Albert fisherfolk susceptible to economic shocks (KaziNjema, 2023).

Amidst the above challenges, Uganda's oil and gas activities are concentrated around Lake Albert, or in the Lake Albert area. Experience from Nigeria, Angola, Azerbaijan, and Uganda among other countries shows that oil exploitation activities can negatively impact the fisheries sector (Osuagwu, 2018).

Despite this awareness, independent research to determine Ugandan fisherfolk's experiences with the Lake Albert oil project is limited. This undermines documentation of the impact of the Lake Albert project on fisherfolk, thereby undermining the country's capacity to avoid or mitigate the impacts to protect fisherfolk and Uganda's fisheries sector.

3.0 Purpose of research brief

The main objective of this research brief therefore is to document the impact of the Tilenga and Kingfisher oil projects on fisherfolk operating on Lake Albert in Buliisa and Kikuube districts in Uganda.

It is hoped that the information in this brief will be used by relevant Ugandan government entities, civil society organisations, the private sector including the oil companies that are operating in Uganda, development partners and others to address the impacts of the Lake Albert oil project on fisherfolk, while implementing measures to avoid or mitigate any further impacts of the Lake Albert oil project on fisherfolk and biodiversity.

4.0 Research brief approach or methodology

This research brief documents the impact of the Lake Albert oil project on fisherfolk operating on Lake Albert in Buliisa and Kikuube districts.

The brief focused on fisherfolk in the two districts because the Lake Albert oil project infrastructure is concentrated in Buliisa and Kikuube, raising the likelihood of heightened impacts on fisherfolk in the districts.

To assess or document the Lake Albert oil project's impacts on fisherfolk in the aforementioned districts, Focus Group Discussions (FGDs) were conducted in November 2023 with fisherfolk operating on Lake Albert in Buliisa and Kikuube districts.

Documentary review and KIIs were also employed to collect information contained in this brief.

The research brief answers the following questions:

i. What are the ecosystems that support the Lake Albert fisheries and how have these have been affected by Uganda's oil activities?

ii. How have oil sector infrastructural developments affected fisherfolk operating on Lake Albert?

iii. How have fishmongers, especially women, been impacted by the Lake Albert oil project?

iv. What recommendations are made by the fishers and experts to address the Lake Albert oil project impacts on fisherfolk in Buliisa and Kikuube districts?

Section 5 below discusses the main findings in relation to the above questions.

5.0 Findings

5.1. Key wetlands and rivers (ecosystems) affected by Lake Albert oil project

Lake Albert contributes significantly to Uganda's fish production. The lake and its contiguous waters host at least 55 species of fish (Wandera and Balirwa, 2010), at least ten of which are endemic to Lake Albert. Cichlids such as Nile Tilapia (Oreochromis niloticus), Catfish (Bagrus docmak), locally known as Semutundu , Singida Tilapia (Oreochromis esculentus), locally known as Ngege and others are abundant, mostly appearing in sheltered, inshore areas, particularly lagoons.

Nile perch, one of the largest freshwater fishes is also found in the lake. Because of overfishing, Nile perch has been placed on the IUCN Red List as endangered (IUCN 2010), highlighting the need for special conservation efforts. The endemic Albert Lates (Lates macrophthalmus) or Gamefish is also listed as endangered on the IUCN Red List (Natungonza and Musinguzi, 2022).

Lake Albert is home to a wide range of fish species because the unique ecosystems of the Lake Albert area provide the conditions needed for the various fish species to thrive. The wetlands in the area provide breeding grounds and are believed to offer the principal food among others needed to support the Lake Albert fisheries (Ministry of Energy and Mineral Development, 2013).

Some of the above wetlands include the Murchison Falls-Albert Delta Ramsar site, a wetland system spanning 17,293 hectares (Ramsar Sites Information Service, 2024). The wetland is being affected by the Tilenga project (TotalEnergies E&P [U] B.V.)., 2019).

Rivers such as the Victoria Nile, Albert Nile, Sambiye and Waisoke have also been affected by or are located in the Tilenga project area (TotalEnergies E&P [U] B.V., 2019). Some of the rivers flow into Lake Albert and are important for the lake's fisheries as they provide breeding grounds, support juvenile (young) fish to mature and are a habitat for the fish.

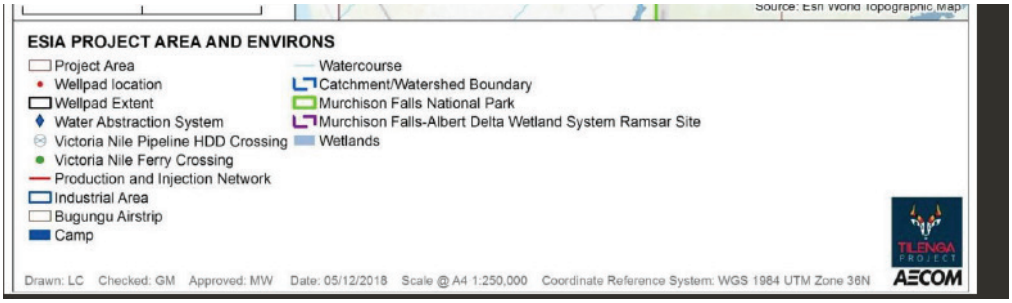
Equally important is the fact that Lake Victoria, which is the main source of water inflow into Lake Albert (TotalEnergies E&P [U] B.V., 2019), is set to be affected by the EACOP with nearly a third of the pipeline being found in the Lake Victoria basin. Seventeen (17) wetlands belonging to Lake Victoria are set to be affected by the pipeline (AFIEGO, 2023).

Overall, key lakes, rivers and wetlands that support the Lake Albert fisheries are already being affected or are set to be affected by infrastructural developments for the Lake Albert oil project. Well pads along Lake Albert have been constructed for the Kingfisher project, and drilling for oil within the lake's bed is ongoing. Oil production has not began, however.

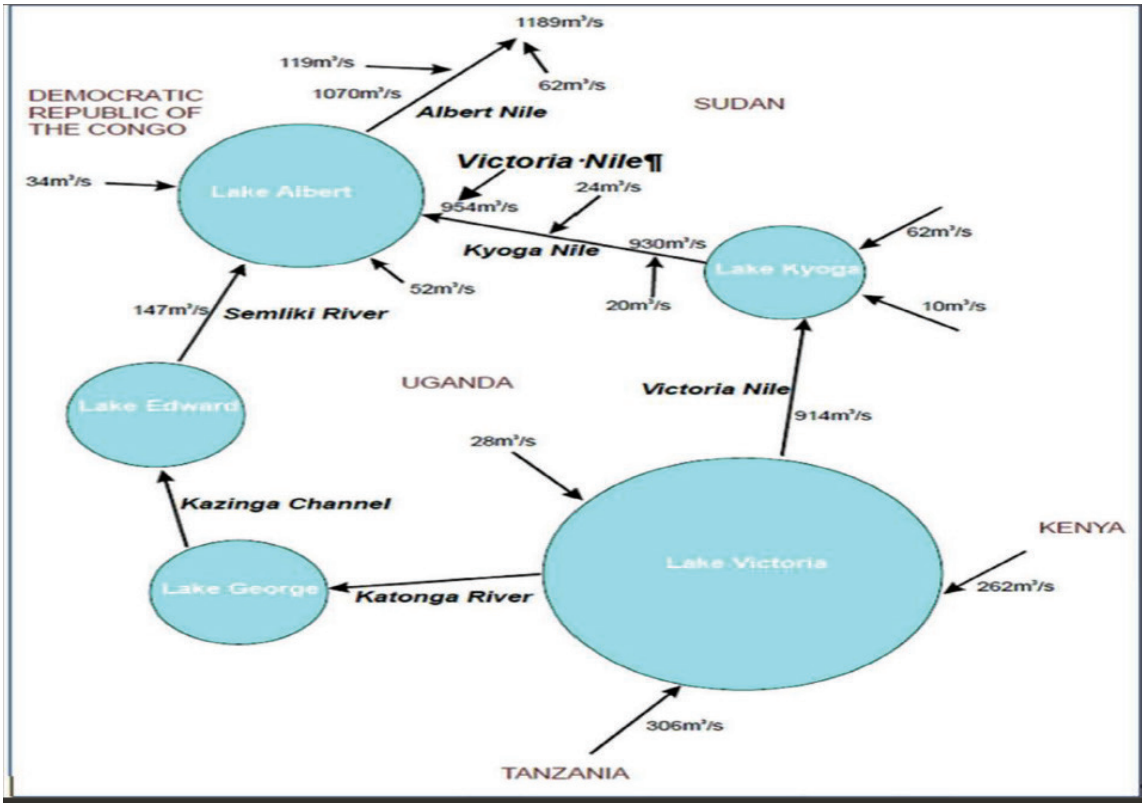
Worth noting is that the lakes, rivers and wetlands that support the Lake Albert fisheries are also at risk of degradation through erosion of their banks or shores, siltation, contamination by chemicals and others used in oil production, oil spills and others.

Map and key of key water bodies affected by the Tilenga project
Source: Tilenga ESIA report, Volume 2





A figure showing water inflows into Lake Albert
Source: Tilenga ESIA, Volume 2



5.2. Importance of the Lake Albert fisheries to Uganda's economy

Since 2017, Lake Albert has been the biggest contributor to freshwater fish production in Uganda. In 2018, the lake contributed 43% to the national fish catch, while Lake Victoria, Africa's largest freshwater lake, contributed 39.9%. The figures below demonstrate the importance of the Lake Albert fisheries sector.

Proportion of fish catch by water body
Source: Uganda Bureau of Statistics (UBOS) and MAAIF

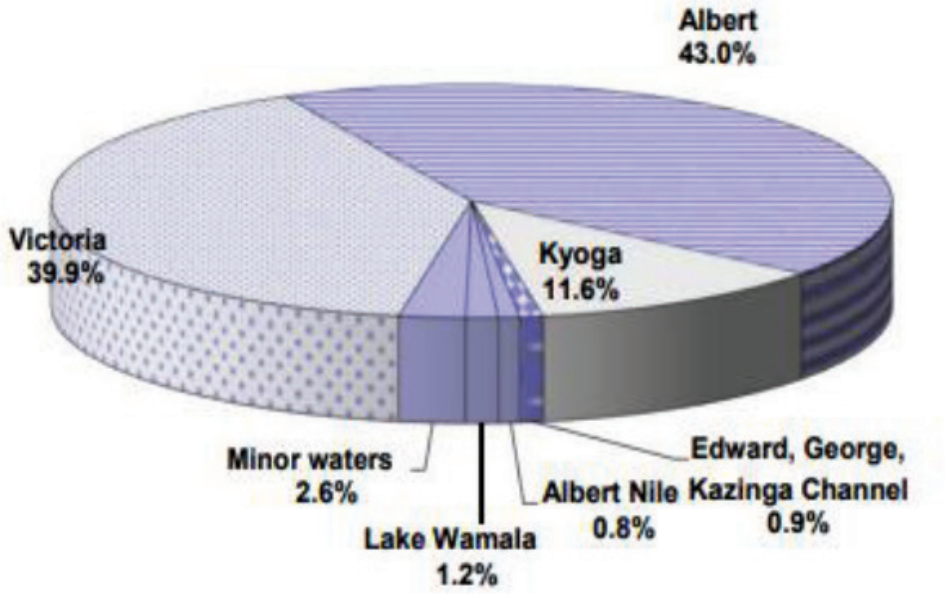
Table 3.1 E: Fish catch by Water Body ('000'tonnes), 2014 – 2018

Water Body	2014	2015	2016	2017	2018
Lake Victoria	245,000	238,630	252,804	133,231	138,037
Lake Albert	152,000	149,040	148,159	171,767	148,640
Lake Kyoga	38,000	41,768	40,710	41,540	40,133
Lake Edward, George,& Kazinga Channel	6,246	6,354	6,638	3,070	3,074
Albert Nile	5,390	5,122	5,375	2,540	2,794
Lake Wamala	4,590	4,186	3,959	5,062	4,303
Other Waters	10,500	9,760	9,883	9,320	8,820
Total	461,726	454,860	467,528	366,531	345,803

Source: Fisheries Department, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

Percentage of fish catch by water body in 2018

Source: UBOS



Key facts about Uganda's fisheries sector

The fisheries sector in Uganda contributes about 3% to the national GDP (MAAIF, 2021). In his 2023 State of Nation Address, President Yoweri Kaguta Museveni noted that the value of fish and fish products exported increased by 27.7% from USD 148.7 million in the 2020/2021 financial year to USD 156.4 million in the 2021/2022 financial year.

The sector also directly and indirectly employs 5 million people (Economic Policy Research Centre, 2020).

5.3. Impact of Lake Albert oil project on fisherfolk's access to fishing grounds



As earlier indicated in this research brief, FGDs were conducted with fisherfolk operating on Lake Albert to determine the impacts of the Tilenga and Kingfisher oil projects on them. One of the key questions asked during the FGDs was whether the projects had affected fisherfolk's access to fishing grounds. The fisherfolk, especially those from the Kingfisher project area, reported that they had lost access to fishing grounds.

A 30-year-old fisherman from the Kingfisher oil project area in Kikuube district said during a November 2023 FGD,

> *"When the oil company is doing its work on the water, they give us a perimeter saying that we should not go over a certain area. Fishermen from villages such as Kyamasambo, Kiina and others are impacted. This affects us as it pushes us to go fishing in other parts of the lake, including in the DRC where there is insecurity."*

The fisherfolk also noted that some of them lost land to the Kingfisher oil project and received little compensation, which led to some of them leaving the fishing business.

A youthful fisherman from CNOOC's Kingfisher oil project area in Kikuube district said during an FGD,

> *"I was born and raised on the shores of Lake Albert. Our family land was affected by the oil activities. We were told that our lives were going to improve. We were however given very little compensation. The compensation was only for the property on our land, as our land is owned communally. We were given replacement land, but it was too little. Whenever anyone raised a complaint, we were told that if you have a lawyer, take us to court! Those of us who did not get replacement land for instance youth who were living on their parents' land are either renting houses at the shores today or returned to our homes. Some fishermen had come from West Nile, and they returned there."*

Fisherfolk further reported that poor oil waste management during the oil exploration phase had led to contamination of some water bodies that they used to fish from. The water bodies no longer have fish today, which resulted in fishermen losing access to those fishing grounds.

A 29-year-old fisherman from Kikuube district said,

> *"When the oil project came to our area, we had a lagoon and whenever the lake would be windy and fishermen were afraid to go to the lake, fishermen would use the lagoon to fish. However, poor oil waste management during the oil exploration phase, which saw an oil company dump waste at Kyamasambo village in Buhuuka Parish, Kyangwali sub-county, killed fish in the Luzira-Nsonga lagoon. The fish were killed because oil waste would flow from where it was dumped into the lagoon whenever it rained. Other drilling mud fluids also entered the lake. There is no fish in that lagoon now and we can no longer fish from it."*

The fisherfolk also noted that stringent measures and militarisation by the Ugandan government have pushed fishers off the lake. Military men under the Fisheries Protection Unit are deployed on lakes across Uganda to address illegal fishing, use of sub-standard fishing gear and others. Fishing communities report that the military personnel are high-handed and have perpetrated human rights abuses against fishers (Sekayinga, 2023).

An elderly fisherman from Buliisa district said during an FGD in November 2023,

> *"We are no longer fishing as we used to. There is militarisation of the lake. It is very difficult for us to fish peacefully. You go to the lake at 8pm and have to leave at 9pm. I have children who pay Shs. 35,000 per term in school fees. I cannot pay the school fees because I am no longer fishing well. The first term and second term reports were confiscated."*

While the militarisation of the lake arises from a Ugandan government programme aimed at protecting Uganda's fisheries sector from unsustainable fishing practices, the oil sector has also led to increased military presence in communities with army barracks or detaches being set up in Buliisa and Kikuube districts.

5.4. Environmental effects and their impacts on fisherfolk

During the FGDs that were conducted with fisherfolk, they were asked whether they had documented oil-induced environmental degradation in their areas. The fisherfolk, who noted that they had not been adequately sensitised by oil companies to understand the measures the companies will take to protect the environment and their livelihoods, observed that they had documented environmental degradation issues in their areas. These issues were affecting fishers, they said.

A fisherman from Wanseko landing site in Buliisa district in the Tilenga project area said,

> *"I have been fishing on Lake Albert for a long time. During the oil exploration phase, bombs would be exploded in Lake Albert at Wanseko. We used to get tilapia, Nile Perch and other fish but the fish reduced after the blasting. We also noticed that Lake Albert water became smelly and dirty during the oil exploration phase. We don't know if that impacted fish. We, fishermen, used to depend on the lake to pay school fees, dowry and other things. It is hard now."*

Worth noting is that factors such as over-fishing, high population growth and others have also affected the Lake Albert fisheries, including impacting access to Nile Perch.

Another fisherman from Buliisa district in the Tilenga project area said,

> *"Fishermen are facing problems with the water coming from the [Tilenga Industrial Area]. The water is dirty, and it flows through villages and goes to Lake Albert. The water seems to be contaminated because wherever it goes, fish disappears. It also leaves marks on our nets. When we cast nets and pull them from where the water has been, the nets are slippery."*

Available information indicates that wastewater from industrial sources can impact fishing activities through increasing the nitrogen and phosphorus content of water bodies. The two compounds or nutrients build up over time and promote algae as well as other water plant growth. When the plants die and as they decay, they lower oxygen levels in the water, causing the migration or death of fish (Datta, 2015). This could explain why fisherfolk operating on Lake Albert are impacted by water runoff from the Tilenga Industrial Area.

Fishermen from Kikuube district also reported impacts, with the Kingfisher oil rig, which was launched by the Ugandan president in January 2023, being implicated in affecting fisherfolk's livelihoods.

A fisherman said during an FGD,

> *"CNOOC's rig has a strong light. The light makes fish run away. When you put a net in the lake when there is light, you don't catch anything. The bright lights from the rig also attract insects, locally called Jur, that fall into the lake and make fishing hard. The insects fall in the eyes of the fishermen, hindering fishing."*

Furthermore, the fisherfolk reported negative health impacts arising from the oil rig.

A youthful diver noted during an FGD,

> *"When fishermen lay nets to catch fish, I have to dive into the lake and arrange them. If I do this work during daytime, there is no effect but at night, there are strong vibrations from the oil rig. This affects my ears. They start to ring. Other divers have reported the same effect too."*

Popper and Hawkins (2019) also explain that vibrations can affect fish and therefore fishing activities. They note that fish use a variety of sensory systems to learn about their environments and to communicate. Popper and Hawkins (2019) further note that sound is used for communication between fishes, mating behaviour, the detection of prey and predators, orientation and migration and habitat selection. Thus, anything that interferes with the ability of a fish to detect and respond to biologically relevant sounds can decrease survival.

In their assessment, *Underwater Sound and Vibration from Offshore Petroleum Activities and their Potential Effects on Marine Fauna: An Australian Perspective,* Kent et al (2016) noted that sound and vibration from petroleum and other activities could have range of effects on marine fauna including: masking of sounds animals produce for communication and navigation, or which are biologically important cues for their survival and function; changes in behaviour that can affect energetics, such as group cohesion, displacement, attraction or avoidance; physiological stress-related responses; and in more extreme situations, hearing impairment or non-hearing related physiological injury.

The vibrations from the Kingfisher oil rig could therefore potentially affect the fish in Lake Albert.

5.5. Impact of Lake Albert oil project on fishmongers especially women

Over 300,000 women are employed by the small-scale fisheries sector in Uganda (Food and Agricultural Organisation, 2023). The women largely work in processing and trading in the fisheries value chain (Food and Agricultural Organisation, 2023).

The Lake Albert fisheries sector also employs women. During FGDs held in Buliisa and Kikuube districts, women, majority of whom work as fishmongers indicated that their and others' displacement for the Kingfisher and Tilenga oil projects, population influx and other factors had affected their access to fish.

A female fishmonger from Bulisa district in the Tilenga project area said during a November 2023 FGD,

> *"Since these people [oil company workers] came, we call them our enemies. This is because God saw that people from the lake shores should benefit from fish. When these enemies of ours came however, they took away that benefit by creating competition, which increased the price of fish. We local people find it hard to compete with them. We cannot buy."*

Yet another fishmonger from Kikuube district in the Kingfisher project area said,

> *"Before I was displaced from Kyakapere village on the shores of Lake Albert, I and other women that deal in fish used to operate successful businesses. When we were relocated to Nsonga village in Kikuube district by CNOOC however, we became helpless. This is because we cannot engage in fish trade in Nsonga the way we used to do in Kyakapere. Moreover, in the new village of Nsonga where CNOOC constructed our houses, our compounds are too small, and we cannot sundry our fish."*

The women noted that they are also suffering from insecurity, owing to reduced fishing opportunities for fishermen operating on Lake Albert.

A female fishmonger observed the following during an FGD in Buliisa district,

> *"We have experienced strong hardships. Fish used to be abundant. My parents were fisherfolk and they used to catch excess fish, preserve, sell, and pay my school fees. They could earn about Shs. 2 million in a week. Today, fishermen and fishmongers may not be able to get fish and sell in a week because of various factors. As a result, people are poor. They could have worked in the oil sector but casual workers for the sector are gotten from Buganda, Lango, Karamoja and other areas. Our brothers have now become thieves because they have no opportunities."*

The women that participated in FGDs on which this research brief is based noted that as a result of the reduction in economic opportunities, they were facing challenges such as failure to pay school fees for their children.

5.6. Fisherfolk's coping strategies

During the FGDs that were conducted with fisherfolk operating on Lake Albert, the fisherfolk were asked how they were coping with the impact of the Lake Albert oil project on their livelihoods. The following coping strategies were outlined by the fisherfolk: borrowing money to take care of family needs, engaging in causal work *(bupakasi)* through which some fisherfolk earn Shs. 3,000 (USD 0.76) per job and agricultural work though some fishers noted that water from the Tilenga Industrial Area had destroyed their gardens and they were not compensated.

Others who are engaged in farming noted that animals from Murchison Falls National Park (MFNP) destroyed all their crops during the last farming season. The Uganda Wildlife Authority (UWA) was yet to compensate the fisherfolk-turned-farmers by the time the FGDs were conducted in November 2023.

6.0 Conclusion and Recommendations

This research brief confirms that fisherfolk operating on Lake Albert have been negatively impacted by the Tilenga and Kingfisher oil projects. The fisherfolk have lost access to fishing grounds in some instances, especially in the Kingfisher project area, are suffering the impacts of pollution due to water run-off from the Tilenga Industrial Area and are affected by light and noise pollution from the Kingfisher oil project rig.

Women, majority of whom work as fishmongers in the Lake Albert fisheries value chain, report negative impacts to their businesses due to an oil-induced population influx that has

created competition, resulting in higher prices for fish. The women also report being unable to afford school fees for their children, as well as facing heightened insecurity. This arises from the fact that fishermen who can no longer fish turn into thieves in some instances.

Militarisation of Lake Albert by the Ugandan government is also reported to have negatively impacted fishers. The Ugandan government argues that it is important to maintain army men on lakes in Uganda to promote sustainable fishing practices.
Other factors such as over-fishing, population influx and use of illegal fishing gear among others are also responsible for some of the challenges experienced by fishers on Lake Albert.

Recommendations

This research brief recommends the following:

i. In 2019 and 2020, the National Environment Management Authority (NEMA) issued Environmental and Social Impact Assessment (ESIA) certificates of approval to Total and CNOOC for their Tilenga and Kingfisher oil projects respectively. The certificates were issued after the aforementioned oil companies indicated the mitigation measures that they would undertake to avoid, minimise or mitigate their projects' impacts, including on fisherfolk. NEMA should work with relevant government agencies to audit compliance to the ESIA commitments and where gaps are found, action should be taken to foster compliance.

ii. In relation to the above, NEMA should ensure that CNOOC and Total implement mitigation measures related to social and environmental impacts such as flash floods from the Tilenga project area, light and noise pollution, population influx and others to address the challenges faced by the Lake Albert fisherfolk.

iii. The Ministry of Agriculture, Animal Husbandry and Fisheries (MAAIF) and the Ministry of Water and Environment (MWE) should undertake a study to assess the impact of the ongoing oil exploitation activities including the construction of wellpads and industrial areas, operation of oil rigs as well as other activities on water bodies connected to and fish in Lake Albert. Technical studies to assess the impact of the above activities on Lake Albert and its fisheries need to be undertaken and recommendations made to stop any future damage to Lake Albert and the water bodies connected to the lake.

iv. While the above recommendations are being acted upon, the Petroleum Authority of Uganda (PAU) alongside MAAIF should conduct a documentation exercise to identify fisherfolk that have lost access to fishing grounds, have lost their livelihoods or those that have lost crops due to the flash floods from the Tilenga Industrial Area as well as oil-induced human-wildlife conflicts. PAU should ensure that CNOOC, TotalEnergies and UWA compensate these fisherfolk.

v. The Ministry of Energy and Mineral Development (MEMD) should also task CNOOC and Total to avoid causing fishermen loss of access to fishing grounds.

vi. In addition, MAAIF should put in place offices on the shores of Lake Albert to enable fisherfolk to report oil projects' impacts on them. MAAIF should ensure that fisherfolk's complaints are addressed.

vii. Finally, government and civil society organisations (CSOs) should put in place programmes for the fisherfolk at the landing sites geared towards continually sensitising the affected people on how oil activities can affect their lives, and how to prevent these impacts.

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Fisherfolk as well as AFIEGO staff and partners during a site visit to Lake Albert

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