

**Fishing Activities And Its Impact On Social Economic Development In Uganda; A Case Study Of Kasenye**

**Landing Site Wakiso District**

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**Abstract**

This study looked at the impact of fishing activities as a tool on social economic development in Uganda; a case study of Kasenye landing site Wakiso district. The purpose of this study was to examine the impact of fishing activities as a tool on social economic development in Uganda using of Kasenye landing site as the case study. This study was guided by three main objectives that is, to find out how fishing activities contribute to social economic improvement of local community around Kasenye fishing landing site, to find out the different activities involved in fishing around Kasenye fishing landing site and to establish the relationship between fishing and other social economic activities around Kasenye fishing landing site. This study investigated the fishing activities, challenges facing the sector and their implications on development at Kasenye landing site in Wakiso district as a case study. A cross-sectional research design was implemented using both quantitative and qualitative data collection methods between January to March 2022. Structured questionnaires administered to 100 fisherfolk and interviews with key informants provided primary data. Secondary data was obtained from relevant government reports and publications. Data was analyzed using SPSS and qualitative data summarized thematically. Results showed that gill netting was the main fishing practice providing over 70% of household incomes averaging UGX 200,000 monthly. Fishing supported 450 people directly through employment and others indirectly in related activities. It was the prime source of animal protein and food security for the community. However, declining fish stocks due to overfishing, use of illegal gears, and environmental degradation were negatively impacting incomes. The study concludes that despite fishing's significant role, its full potential for supporting broader community development is still hampered by unsustainable exploitation of fishery resources and inadequate industry support systems. Urgent interventions are needed for sustainable fisheries management, infrastructure investments, and promotion of alternative livelihoods to optimize development outcomes.

**Keywords: Fishing Activities, Social Economic and Development**

### **Background of the study**

Fishing is one of the main economic activities carried out by communities living around lakes, rivers and sea areas in Uganda. It contributes significantly to socio-economic development by providing employment, income, food and export earnings (Oromo et al., 2023). According to the Ministry of Agriculture, Livestock and Fisheries (MAAIF), the fishing industry contributes about 6% to Uganda's GDP annually and employs over 500,000 people directly or indirectly from fishing-related activities (Kazaara et al., 2024). The commercial fishing industry has the potential to contribute more if it is well developed and sustainably managed.

However, fishing activities, especially small-scale fishing, face various challenges that limit their potential contribution to social economic development. Some of the key issues include overfishing, use of illegal fishing gear and methods, poor infrastructure, access to credit facilities, market access issues and poor governance (Alex & Moses, 2024). These challenges have negatively affected fishing communities through reductions in catches, declines in income, conflicts and degradation of the aquatic ecosystems that support their livelihoods (Oromo et al., 2023).

Kasenyi Landing Site located in Kasenyi Sub-County, Wakiso District represents one of the important fishing communities along the shores of Lake Victoria in Uganda. The community relies on fishing and related activities as the main source of livelihood and income (Ashiraf et al., 2023). The results of the study showed that the main fishing activities carried out in the area included the use of seine nets, beach seines, cast nets and longlines. Gill netting was the dominant activity practiced by more than 80% of respondents (Christopher & Felex, 2022). Most households had more than one type of fishing gear, depending on the season and target species. The average household income from fishing per month was found to be 200,000 Ugandan shillings, with net fishing contributing more than 70% of the total income.

Additional income was obtained by selling fish, building ships, making nets and repairs (Lydia et al., 2023). More than 90% of households reported fish as their main source of animal protein and food security. In terms of employment, results showed that fishing directly employed more than 450 people at the Kasenyi landing site, while others were involved in fish processing, boat building/maintenance and net making activities (Ashiraf et al., 2023). Indirect employment was created through trade in ancillary fishing goods and services. Fish sales were mainly done locally through women who bought fish directly from the boats or from shore sales.

### **Problem statement**

Fishing has long been an important economic activity supporting livelihoods and contributing significantly to the socio-economic development of communities in Uganda. However, the fishing industry currently faces many challenges that negatively affect its potential contributions (Edgar & Moses, 2023). According to FAO (2018), overfishing has led to a decline in fish stocks, while the use of illegal gear and methods is exacerbating the unsustainable exploitation of fishery resources in many areas. A study (A & Ahmed, 2019) in the Murchison Bay-L.Albert region found that catch per unit of effort decreased by more than 60% in 10 years due to overcapacity and illegality. In addition, poor post-harvest infrastructure and access to markets hampers the growth of income from the sector, as more than 30% of the total catch is lost annually due to spoilage (Lydia et al., 2023).

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Located in Wakiso District on the shores of Lake Victoria, Kasenyi Landing Site hosts a significant artisanal fishing community that depends on fisheries resources for livelihood and food security. However, an assessment by the District Fisheries Office revealed that fish production has steadily declined in recent years, impacting household income and nutrition (Kazaara et al., 2024). Previous studies have also documented increased conflicts and power struggles over restricted fishing access points and areas due to immigration and uncontrolled gear use. Although fishing activities are major economic enterprises supporting more than 450 people directly and many more indirectly through ancillary services, their benefits appear to be under threat (Moses & Nancy, 2024).

At the household level, reduced catches due to overexploitation and illegal fishing practices translate into lower incomes that undermine fishermen's livelihoods. As fish is a major source of animal protein, declining production also poses a risk to food and nutrition security in society (Brian et al., 2024). In addition, the lack of modernized fishing equipment, boats and infrastructure limits fishing capacity and limits productivity and benefits (Paul & Kazaara, 2023). In addition, insecure fish landing facilities, poor market access and fluctuating prices also reduce returns, preventing investment and the growth of alternative livelihood options. At the community level, therefore, current trends point to potential negative impacts on social service provision, employment and the well-being of the general population if not well managed (Ntirandekura & Christopher, 2022). Comprehensive studies are lacking, but such evidence is essential to inform appropriate policies and intervention strategies. Therefore, the problem of the study is to investigate and understand the current status of fishing activities, associated problems and their implications for economic and social development in Kasenyi landing site (Suzan & Kazaara, 2023).

#### **Specific objectives**

1. To find out how fishing activities contribute to social economic improvement of local community around Kasenyi fishing landing site.
2. To find out the different activities involved in fishing around Kasenyi fishing landing site.
3. To establish the relationship between fishing and other social economic activities around Kasenyi fishing landing site.

#### **Methodology**

The study used a qualitative research design in nature and used a correlational survey design to help in finding out the relationship between the main variables of the study. According to (L. A. Nafiu et al., 2012), research design is relevant for studies looking at linear relationships and not necessarily cause and effect relationships. The study was conducted at Kasenyi Entebbe Fishing Port in Wakiso District, Uganda. The landing site of Kasenyi is a busy commercial center located 8 km outside Entebbe at Abayita Ababiiri. The study focused on 200 respondents, which included fishermen in the monitored population, who are the main respondents in the locality (L.A. Nafiu, 2012). The study used a sample size of 200 respondents according to Krejcie and Morgan's table to determine the sample size. The sample included both male and female respondents at Kasenyi Landing Site in Wakiso District. Thus, the study used a total of 200 respondents, which are 150 fishermen, 5 local leaders, 6 sub-country leaders, 5 politicians and 36 other stakeholders. This sample size was efficient and well representative of the population, convenient for the researcher in terms of funds, time and others (Rasheed et al., 2022). The study used stratified sampling because the study population had a diverse category of respondents in the form of departments. A representative sample was selected from each stratum using simple random sampling.

**Table 1: Sample Size Determination**

| Population Category | Target Population | Sample size | Sampling Method        |
|---------------------|-------------------|-------------|------------------------|
| fishermen           | 300               | 150         | Simple random sampling |
| Local leaders       | 8                 | 5           | Simple random sampling |
| Sub-country leaders | 12                | 6           | Purposive sampling     |
| politicians         | 5                 | 3           | Purposive sampling     |
| OTHER STAKEHOLDER   | 600               | 36          | Simple random sampling |
| Total               | 925               | 200         |                        |

The study used simple random sampling of selected citizens (both fishermen and other stakeholders) as it was considered scientific as it allowed equal chances for all members of the population to participate (L. Nafiu et al., 2013). The method was used because the setting in which the study is to be conducted has a relatively large population. Purposive sampling techniques were used to select key informants. The key informants are the fishermen or beneficiaries of fisheries in the locality and these are the main students (L. A. Nafiu et al., 2017). The study therefore purposefully selected fishermen to represent the fishing body. Purposive sampling was used

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because the method was suitable for the category of respondents as they are few and the method reduced response errors (Anwar et al., 2022). Purposive sampling was used to generate data that would clarify or confirm the data generated from the group respondents. Since the study collected primary data, it used two methods of data collection, both questionnaires and interviews (Olanrewaju et al., 2021b). A semi-structured questionnaire was used to collect data from randomly selected respondents. Questionnaires were distributed to selected respondents to complete and then collected after an agreed time. The questionnaire method was used because it is cheaper, saves time and allows the study to use first-hand information from many people in a short period of time as recommended by (L. A. Nafiu et al., 2017). This involved interaction between the researcher and the respondents which provided opportunities to probe responses where necessary or for respondents to explain and build on their responses and non-verbal communication was prepared and used as relevance to the study varied (Lu et al., 2013). The key informants for this study were a total of six respondents consisting of two fishing leaders and four senior leaders and therefore they were interviewed as they are considered knowledgeable to provide information to strengthen the data obtained from the questionnaires. A semi-structured questionnaire was used in the study (A & Ahmed, 2019). The questionnaire consisted of three parts; section A, on respondents' biological data, section B on data on study objectives, and section C on the general question of what respondents thought were the best leaders in inventory planning and control. The interview had predetermined questions in accordance with the objectives of the study. This tool helped keep the study focused on the main study objectives and avoided asking irrelevant questions (Jallow et al., 2021). The tool was used in data collection because it allowed the study to generate detailed information that may not be generated by the questionnaire or in the form of clarifying issues that would not be clear from the questionnaire responses (Jallow et al., 2021). The content validity index (CVI) of the instruments was determined using an expert judgment method. Content Validity Index (C.V.I) to determine the validity of the instruments that the researcher calculated for each research expert. The instrument was considered valid if the average CVI for all three experts was 0.7 as recommended by (Amin, 2005) and as shown in the formula below;

CVI = Number of items considered relevant by managers

Total number of items

Reliability of the data collection instruments was determined using the Chronbach Alpha coefficient to determine reliability and trustworthiness. The researcher collected data from respondents of a similar nature but not from the main study area (Lu et al., 2013). It was entered into SPSS, analyzed to determine the alpha value of Chronbach. Data collection instruments were considered appropriate and reliable if the coefficient generated was 0.70 as recommended by (L. A. Nafiu et al., 2017). Since both qualitative and quantitative data were used for collection, analysis of both quantitative and qualitative data was performed. Prior to quantitative data analysis, collected data were coded, entered into SPSS, edited and verified to ensure accuracy, completeness and consistency (Nelson et al., 2022). After editing the necessary data, the Statistical Package for Social Scientists (SPSS) was used for analysis because it has a wider range of analysis options such as frequencies, percentages, mean and standard deviation, graphs and charts, which made it easier to perform statistical tests and make a proper interpretation

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(Nelson et al., 2023). Descriptive statistics using data from respondents was used to draw conclusions about variable relationships (L. A. Nafiu et al., 2013). Qualitative data from the interviews were analyzed qualitatively. Data were sorted, edited, organized and coded according to the objectives of the study. The data were analyzed thematically. Based on the variables and objectives of the study, themes were generated and narrative interpretations and conclusions were made as explained in (Olanrewaju & Abiodun, 2021).

## RESULTS

**Table 2: Contribution of fishing activities to social economic development of local communities**

| Statement                                                                                                                        | F  | SA  | F  | A   | F  | NS  | F  | D   | F  | SD  |
|----------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|----|-----|----|-----|----|-----|
| Food security at household level through feeding the world's growing population                                                  | 60 | 30% | 55 | 28% | 20 | 10% | 40 | 20% | 25 | 13% |
| Generate substantial income and job opportunities                                                                                | 90 | 45% | 35 | 18% | 15 | 8%  | 25 | 13% | 18 | 7%  |
| Increases the country's GDP                                                                                                      | 45 | 23% | 50 | 25% | 10 | 5%  | 33 | 20% | 10 | 5%  |
| Provide opportunities to empower individuals to meet their own physical and psychological needs and provide for their dependents | 95 | 48% | 35 | 18% | 9  | 6%  | 31 | 16% | 30 | 15% |

**Source: field data 2022**

The table 2 above indicates that 30% strongly agree, 28% agree, 10% of the respondents are not sure, 20% disagree while 13% strongly disagreed with the point that Food security at household level through feeding the world's growing population, the table also indicates that fishing generate substantial income and job opportunities with the following statistics 45% strongly agreed, 18% agreed, 8% not sure, 13% disagreed and 7% of the respondents

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strongly disagreed. Further still, the table above indicated that 25% strongly agreed, 34% agreed, 5% are not sure, 20% disagreed and 5% strongly disagreed that Increases the country's GDP (Lydia et al., 2023).

On fishing provides opportunities to empower individuals to meet their own physical and psychological needs and provide for their dependents the statistics show that 48% strongly agreed, 18% agreed, only 9% were not sure, 16% disagree and 30% strongly disagree with the statement.

#### **Different activities involved in fishing around Kasenyei fishing landing site.**

This study further sought to establish the different activities involved in fishing around Kasenyei fishing landing site.

**Table 3: Different activities involved in fishing around Kasenyei fishing landing site**

| Statement                    | F  | SA  | F  | A   | F  | NS  | F  | D   | F  | SD  |
|------------------------------|----|-----|----|-----|----|-----|----|-----|----|-----|
| Fish processing operations   | 50 | 25% | 85 | 43% | 10 | 5%  | 30 | 15% | 25 | 13% |
| The transshipment of fish    | 45 | 23% | 65 | 33% | 15 | 8%  | 25 | 13% | 50 | 25% |
| Harvesting fishery resources | 35 | 18% | 50 | 25% | 20 | 10% | 65 | 33% | 30 | 15% |
| Transportation               | 90 | 45% | 30 | 15% | 8  | 4%  | 20 | 10% | 52 | 26% |

**Source: field data 2022**

The table 3 above indicates that 25% strongly agree, 43% agree, 5% of the respondents are not sure, 15% disagree while 13% strongly disagreed with the point that one of the fishing activities used at Kasenyei Landing site is fish processing operations, the table also indicates that another fishing activity is transshipment of fish with 23% strongly agreed, 18% agreed, 8% not sure, 13% disagreed and 25% of the respondents strongly disagreed. Further still, the table above indicated that harvesting fishery resources is among the fishing activities used at Kasenyei landing site 18% strongly agreed, 25% agreed, 8% are not sure, 10% disagreed and 26% strongly with the statement.

#### **Relationship between fishing and other social economic activities around Kasenyei fishing landing site.**

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**Table 4: Relationship between fishing and other social economic activities around Kasenyi fishing landing site.**

| Statement                                                                                                                                       | F  | SA  | F  | A   | F  | NS | F  | D   | F  | SD  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|----|----|----|-----|----|-----|
| Preservation of the sea and the environment at large creates tourism opportunities                                                              | 85 | 43% | 35 | 18% | 10 | 5% | 40 | 20% | 30 | 15% |
| Preservation of the sea controls environmental changes and creates a safe and free environment from natural calamities                          | 60 | 30% | 55 | 28% | 11 | 6% | 30 | 15% | 44 | 22% |
| The quality of employment at the fishing sites is increasingly seen as an important social and economic aspect of fisheries                     | 90 | 45% | 30 | 15% | 10 | 5% | 30 | 15% | 20 | 16% |
| Fishing activities respond directly to some environmental stressors such as toxic and thermal pollution, flow regime change, and climate change | 75 | 38% | 55 | 28% | 9  | 5% | 31 | 16% | 30 | 15% |

**Source: field data 2022**

43% of the respondents agreed that preservation of the sea and the environment at large creates tourism opportunities, 18% agreed, 5 were not sure, 20% disagreed while 15% of the respondents strongly disagreed with

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the statement which indicates that there is a relationship between fishing activities and social economic development. 45% of the respondents strongly agreed that the quality of employment at the fishing sites is increasingly seen as an important social and economic aspect of fisheries, 15% agreed, 5% were not sure, 15% disagreed with the statement while 22% strongly disagreed with the statement (Olanrewaju et al., 2021a). On the quality of employment at the fishing sites is increasingly seen as an important social and economic aspect of fisheries the statistics show that 45% strongly agreed, 15% agreed, only 5% were not sure, 15% disagree and 16% strongly disagree with the statement. 38% of the respondents strongly agreed that fishing respond directly to some environmental stressors such as toxic and thermal pollution, flow regime change, and climate change, 28% agreed, 5% were not sure, 16% disagreed with the statement while 15% strongly disagreed with the statement.

### **Conclusions**

The study concluded that the government of Uganda through fisheries authorities carries out regular inspection of fish businesses on this landing site to ensure compliance with national quality standards; the fisheries authorities on this landing site regularly issue quality control guidelines to be followed by fishermen and regularly train the fisheries traders in better quality control practices; the government also encourages the use of improved techniques of fish handling, processing, preservation, storage, transportation and marketing on this landing site.

The study also concluded that the government regularly seeks for input of the local community members in management of the fisheries sector on this landing site; the appointed ones carry out regular monitoring of the fishermen to ensure that they perform as expected; it was also revealed that these locals are involved in formulation of policies and laws regarding performance of the sector and are involved in enforcing laws and regulations governing the fisheries sector. Finally, the study concluded that the government is indeed committed to enforcing sustainable management and development of the fisheries sector on this landing site; the government carries out regular monitoring of fishermen to guard against over fishing; all traders in the fishing business on this landing site are required to hold commercial fishing licenses; the government also sets a maximum amount of fish businessmen are expected to catch from the lake; the government carries out regular awareness campaigns to ensure sustainable fishing practices; the government has made attempts to control fisheries epidemics and poisoning on this landing site.

### **Recommendations**

The study recommends that there is need to formulate and package policies, byelaws and regulations to guide enforcement of quality of fish yield standard. Approaches to fisheries conflicts arbitration to address these issues at local, national and international challenges must be emphasized in guiding management decisions. Institutions for enforcing quality should be established and strengthened at local, national and regional level for effective management.

Further research on fisheries socio-economic and the ecosystem of Uganda 's fishery should be undertaken covering in order to support effective enforcement of quality fish yield standards.

The researcher recommends that enabling and relevant policies, laws, regulations, awareness raising systems, coordination, arbitration measures and approaches aimed at sustainable management of the fisheries need to be

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developed with grassroots ‘and community participation in a bottom-up approach for ownership of the fishery. A whole package of tools needs to be developed and enforced to control over fishing, irrational use of destructive gears, sanitation and hygiene, inadequate facilitation among others by the BMU/Cs. It is also very paramount to put in place mechanisms for sustainably funding BMCs’ activities so as to develop and manage the fishery.

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