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Editing Oversight Impericals Consultants International Limited Abstract: This article examines the effects of security instability on fishing communities in the city of Uvira, located on the shores of Lake Tanganyika in the Great Lakes region. Using a qualitative approach that combines interviews, field observations, and documentary analysis, the study highlights the multidimensional impact of armed conflicts on the fishing economy. The findings reveal that insecurity restricts access to fishing zones, reduces household income, disrupts the marketing chain, and causes forced displacement. Women, who are active in fish processing and sales, are particularly affected. Despite these challenges, local coping strategies have emerged, such as strengthening community cooperation, diversifying economic activities, implementing alert and security mechanisms, engaging in local dialogue with stakeholders, and promoting fish processing and preservation, as well as training and awareness initiatives. However, these strategies remain limited due to a lack of institutional support. By mobilizing theories of war economy and local development, the analysis reveals the complex interactions among conflict, the informal economy, and community resilience. The article concludes with recommendations to strengthen security, support local fishing actors, and promote sustainable regional governance around Lake Tanganyika.

Keywords: Fishing, Armed Conflicts, Security Instability, Local economy, Resilience, Great Lakes region

1.1 Introduction

The Great Lakes region, one of the world's largest freshwater areas, is a vital ecosystem for the riparian populations. Fishing is an essential economic and social activity, providing livelihoods for millions of

people and playing a crucial role in regional food security. Lake Tanganyika, in particular, is a vital source of income and protein for the communities along it's shores, especially those in the city of Uvira in the Democratic Republic of Congo (DRC). For these communities, fishing is not just a source of income; it's also a pillar of their cultural and social identity.

Despite it's importance, fishing is severely compromised by a chronic security crisis that has affected the region for several decades. The city and territory of Uvira, located in South Kivu province, is an epicenter of this instability, marked by the presence and activism of multiple armed groups, as well as recurrent local conflicts. These security tensions result in violence, looting, and extortion that directly target fishermen, their belongings, and their families, making their daily activities increasingly perilous. This context of violence and insecurity has profound repercussions on fishing activities and, by extension, on the survival and well-being of the communities that depend on it.

This study is justified by the need to document and deeply understand the interactions between the security crisis and fishing activities, an aspect often neglected in analyses of conflicts in the region. A nuanced understanding of these dynamics is essential for formulating effective resilience strategies and development policies that consider the realities of fishing communities. It is crucial to assess the extent of the impacts to better guide humanitarian and development interventions toward greater sustainability. It is within this context that the research question arises: What is the impact of the security crisis on Uvira's fishing communities, and to what extent do these impacts affect their resilience and ability to maintain their livelihoods?

1.2 Study Objectives

1.2.1 Main Objective

The main objective of this study was to analyze the multidimensional consequences of the security crisis on the fishing communities of Uvira.

1.2.2 Specific Objectives

To achieve the overall objective, the following specific objectives were purposed:

- a) To analyze the ways and mechanisms by which armed groups and local conflicts directly affect fishing activities and the safety of fishermen.
- b) To evaluate the socio-economic impacts of insecurity on the income, food security, and living conditions of fishing households.
- c) To examine the adaptation and resilience strategies developed by fishing communities in the face of these security challenges.

1.2.3 Research Hypotheses

To conduct this research, we formulated the following working hypotheses:

H1: The presence and activities of armed groups on Lake Tanganyika and in the surrounding areas have a direct and significant impact on the decrease in fish catches and on the safety of Uvira fishermen.

H2: The security crisis leads to a degradation of the socio-economic conditions of fishing communities, manifested by a drop in income, an increase in poverty, and food insecurity.

H3: The fishing communities of Uvira implement adaptation and resilience strategies to cope with the security crisis, but these are often insufficient to guarantee their long-term survival.

1.3 Methodology and Materials

This study adopted a qualitative approach and exploratory design, aiming to understand the multidimensional effects of security instability on Uvira's fishing communities. The study area covers the beaches of Kalundu, Kilomoni, and Kavimvira, known for their intense fishing activity. Data were collected between March and July 2025 through semi-structured interviews conducted with fishermen, resellers, cooperative heads, fishing service agents, local authority representatives, and NGO members. Focus groups were also organized with women involved in fish processing. Direct observation made it possible to document the conditions of access to the lake, interactions in the markets, and local security arrangements. Secondary data (NGO reports, scientific publications, press articles) complemented the analysis. This methodology allows for the articulation of field testimonies with a broader analytical reading, taking into account the logistical, security, and cultural constraints of the field.

Techniques: The use of the aforementioned methods required us to resort to certain techniques that also helped us collect the necessary data for the writing of this work. The documentary technique consisted of drawing existing data from writings related to the subject. Several data creation methods were used to successfully carry out this work and facilitate the achievement of the expected results, such as semi-structured interviews with different actors in this field, participant observation, and documentary research as mentioned in previous lines.

Justification of the Study: This study is of paramount importance because any properly conducted research adds value for the researcher and for all direct and indirect beneficiaries of the research. Therefore, it can be stated without a doubt that this research has crucial importance from several aspects (personal, academic, economic, and social).

1.4 Theoretical/Conceptual Framework

1.4.1 Fundamental Definitions and Concepts of Fishing and Security Crisis

Fishing: The activity of catching aquatic animals (fish, crustaceans, mollusks, etc.) in their natural environment (seas, oceans, lakes, rivers) for food, commercial, or recreational purposes. It can be practiced on different scales (artisanal, industrial) and with various techniques (adapted from the FAO glossary).

Fisherman: A person who practices fishing. This term refers to both the person who catches fish for subsistence, to sell it in markets, for sport or leisure, and the professional in maritime or inland fishing (Larousse Online Dictionary).

Armed Conflicts: A prolonged disagreement between two or more parties (states, non-state armed groups, or a combination of both) that use armed force to achieve political, territorial, ideological, or economic objectives. It can be international (between states) or non-international (within a state's borders), and its existence criteria are defined, in particular, by the intensity of the fighting and the organization of the parties (International Committee of the Red Cross).

Instability: Refers to a state of lack of stability, permanence, or balance. In a social or political context, it refers to a situation where conditions are subject to frequent and unpredictable changes, often marked by tensions, unrest, or threats to general security and well-being (Le Robert Online Dictionary).

Security Crisis: A period of serious and potentially dangerous disruption of public order and security, characterized by a significant increase in threats (armed violence, terrorist attacks, organized crime, etc.) to populations, institutions, or the territory. It can lead to a rapid deterioration of living conditions and requires an urgent response from authorities (International Crisis Group report, 2020).

Uvira: A city located in the province of South Kivu, in the eastern part of the Democratic Republic of Congo (DRC). Situated on the northern shore of Lake Tanganyika, near the borders with Burundi and Rwanda, it is an important commercial center and a strategic transit point, often affected by the recurrent

armed conflicts that characterize the Great Lakes region (Geographical and situation reports; Atlas of the Democratic Republic of Congo).

Lake Tanganyika: A large freshwater lake in East Africa, the second-largest lake in Africa by surface area and the second-deepest lake in the world. It is shared by four countries: Tanzania, the Democratic Republic of Congo, Burundi, and Zambia. It is a lake of major ecological importance and a vital resource for riparian populations, particularly for fishing and transport (Encyclopædia Britannica Online).

Local Economy: The set of economic activities (production, distribution, consumption of goods and services) that take place within a defined geographical area (city, district, region). It is characterized by the interactions between economic actors (businesses, households, administrations) present in this territory and is often influenced by the resources and specificities of the area (Fundamentals of economics and economic geography).

Resilience: The ability of an individual, group, or system to cope with difficult situations, shocks, or traumas, to adapt, transform, and rebuild in a positive way. In the context of populations affected by conflicts, this implies the ability to maintain or regain essential functioning despite adversity (Boris Cyrulnik, "A Wonderful Misfortune").

Great Lakes: The African Great Lakes region is a geographical and geopolitical area located in East and Central Africa, characterized by the presence of several large lakes (notably Victoria, Tanganyika, Malawi, Kivu, Kyoga, Edward, and Albert). It typically includes countries such as the DRC, Rwanda, Burundi, Uganda, Tanzania, and Kenya, and is unfortunately known for its history of conflict and political instability (International Crisis Group).

1.4.2 Relevant theories and Conceptual Framework

To analyze the impact of the security crisis on Uvira's fishing communities, several rich and recent theories can be mobilized. They allow us to move beyond a simple description of the facts to offer a deeper understanding, connecting conflict dynamics to subsistence practices. Here are three applicable theories, accompanied by their references:

The Sustainable Livelihoods Framework

This theory, popularized by the UK's Department for International Development (DFID), offers a holistic analysis framework. It posits that the livelihoods of individuals and communities are based on a set of resources (human, physical, natural, financial, and social), called "capitals," which are influenced by vulnerability factors (shocks, trends, seasonality) and institutional structures and processes. In this context, the security crisis acts as a "vulnerability shock" that erodes the different capitals of Uvira's fishermen. For example, armed attacks and thefts reduce physical capital (canoes, nets) and financial capital (income). Insecurity limits access to natural capital (fishing zones) and weakens social capital (community trust). Applying this framework demonstrates how the security crisis affects not only income but all the resources that ensure the survival and resilience of communities.

The Security-Development-Environment Nexus

This concept, widely debated in the literature on conflict and development, explores the complex interrelationships among insecurity, underdevelopment, and environmental degradation. In Uvira's case, this nexus is particularly relevant. Security tensions can be both a cause and a consequence of the overexploitation of natural resources, including fishing. For example, the presence of armed groups can disrupt traditional and sustainable fishing practices, pushing fishermen to adopt illegal or destructive methods to maximize their catches under risky conditions. Conversely, competition for increasingly

scarce resources (declining fish stocks) can exacerbate tensions and conflicts between communities. Analyzing this nexus highlights how violence and environmental insecurity feed into each other, trapping fishing communities in a cycle of poverty and conflict.

The Theory of Social Resilience

Social resilience is defined as a community's ability to resist, adapt, and recover after a shock or disaster. This theory focuses not only on negative impacts but also on the responses and adaptive capacities of communities. It proposes to analyze the mechanisms by which Uvira's fishermen manage security threats. These mechanisms may include diversifying activities (shifting from fishing to agriculture or trade), strengthening mutual aid social networks, developing survival strategies like changing fishing times to avoid risky areas, or creating community self-defense groups. The application of this theoretical framework makes it possible to show the agency of the fishermen—that is, their power to act and not be simple passive victims of the conflict. This highlights the strengths and vulnerabilities of these communities, which is crucial for the development of effective support programs.

1.5 Literature Review

The scientific literature and reports from international organizations on eastern DRC and the Great Lakes region reveal a complex and often destructive interaction between conflict dynamics and subsistence activities, particularly fishing. This literature review explores the main themes addressed by existing research and highlights the aspects relevant to the analysis of the impact of the security crisis on Uvira's fishing communities.

The Importance of Fishing in the Region and Pre-existing Threats

Numerous studies underscore the vital importance of Great Lakes fisheries resources for the food and economic security of millions of people. Publications by the Food and Agriculture Organization (FAO), including its 2017 report on Lake Tanganyika, confirm that fishing is the main source of protein and income for a large part of the riparian populations (FAO, 2017). However, long before the intensification of security crises, the literature already showed that fishing was threatened by the overexploitation of fish stocks, environmental degradation, and unregulated fishing practices (Mugabe, 2012). These pre-existing factors create a context of vulnerability that is exacerbated by insecurity.

Direct and Indirect Impacts of Conflicts on Fishing Activities

The presence of armed groups is identified as a major factor in the disruption of fishing activities. A 2018 report by the Center for the Study of Wildlife and Freshwater (CEFAD) focusing on Lake Edward describes how fishermen are targets of attacks, looting, and kidnappings. This violence creates a climate of fear that forces fishermen to restrict their working hours, particularly night fishing, which has a direct impact on the quantity and quality of catches (CEFAD, 2018). The 2016 OXFAM report on South Kivu corroborates this observation, highlighting that armed groups exploit fishing by imposing illegal "taxes" or confiscating equipment, which reduces fishermen's income and increases their risks (OXFAM, 2016).

Socio-Economic Consequences of Insecurity

The literature is unanimous on the disastrous economic and social consequences of insecurity for fishing communities. Research conducted by the Institute for Research and Study on Conflict and Governance (IRECG) in 2019 in the Virunga region showed that the scarcity of fish due to insecurity leads to a dizzying rise in its price on local markets, making the most affordable food source unaffordable for local

families (IRECG, 2019). This situation leads to increased food insecurity and intensified poverty. The work of Mutabazi (2020) on Uvira in particular highlights the growing precariousness of fishermen, who struggle to generate stable income and repay investments in their equipment (Mutabazi, 2020).

Community Resilience in the Face of Conflict

Despite their vulnerability, the literature also highlights the resilience strategies developed by communities. A 2019 report by the United Nations Development Programme (UNDP) describes how the displacement of populations from the hinterland to the coast has exacerbated the pressure on fisheries resources. However, this same report also documents the efforts of communities to diversify their livelihoods by turning to agriculture or trade (UNDP, 2019). The study by Adger (2000) on social resilience provides a relevant theoretical framework, emphasizing that communities are not just victims but actors who develop adaptation mechanisms, although these are often insufficient in the face of the scale of the threats.

The existing literature offers a solid foundation for analyzing the impacts of insecurity on fishing. It confirms that violence not only disrupts subsistence activities but also interacts with pre-existing environmental and economic stressors to create a vicious cycle of poverty and conflict. The case study of Uvira fits perfectly into this perspective, seeking to document these dynamics more precisely in a particularly volatile context.

1.6 Empirical Review

The impact of armed conflicts on local economies and livelihoods, particularly in the fishing sector, is an increasingly relevant research topic, although specific documentation on Uvira remains fragmented. Existing studies conducted on Lakes Tanganyika, Edward, Albert, and Kivu highlight a series of direct and indirect consequences of insecurity on fishing communities. This empirical review focuses on the points raised in this study, contextualizing them with specific data and cases from the scientific literature, survey results, interviews, and reports from international organizations.

Impacts of the Security Crisis on Fishing Activity and Fisheries Production

Several studies confirm that the presence of armed groups, whether national (Maï-Maï) or foreign (FDLR), directly hinders fishing practices. On Lake Edward, for example, fieldwork reported by the Center for the Study of Wildlife and Freshwater (CEFAD) in 2018 reveals that attacks and kidnappings of fishermen for ransom are frequent (CEFAD, 2018). This violence has forced fishermen to restrict their activities, particularly avoiding night fishing, which is the most lucrative for pelagic species like *Ndagala* (*Stolothrissa tanganicae*). This change in traditional practices has a direct impact on the quantity of catches, as shown by a 2017 FAO study on the Lake Tanganyika basin, which highlighted a drastic drop in fish production, affecting cities like Kirumba, where fish, once abundant, has become a rare commodity (FAO, 2017). In addition to armed groups, interstate conflicts (such as those between Uganda and the DRC on Lake Edward) add a layer of risk, with arrests and seizures of equipment. Illegal and unregulated fishing, often carried out by these same armed groups or opportunistic individuals taking advantage of the chaos, also contributes to the overexploitation of fish stocks, threatening the sustainability of the resource.

Socio-Economic and Food Security Consequences

Empirical studies show a direct link between the drop in fisheries production and the degradation of fishermen's living conditions. A 2019 publication by the Institute for Research and Study on Conflict and Governance (IRECG) documented that the scarcity of fish due to insecurity leads to a dramatic increase in its price on local markets, making this essential source of protein inaccessible to the majority of the population (IRECG, 2019). A research thesis by Mutabazi (2020) on the Uvira territory emphasizes that fishermen's incomes have become highly variable, with difficulties in repaying investments in fishing equipment (canoes, nets) in a context where catches are unpredictable (Mutabazi, 2020). As a result, poverty is intensifying, and many fishing households face chronic food insecurity. The impact is not limited to the fishermen themselves but extends to the entire value chain, including women who process and sell fish, who see their activities decline, as confirmed by a report from the International Labour Organization (ILO) on precarious work in the region (ILO, 2018).

Vulnerability and Community Resilience Strategies

Faced with these threats, fishing communities are not passive. The literature on the subject highlights various adaptation strategies. Some fishermen are forced to retrain in other activities, such as agriculture or small-scale trade, although these alternatives are often themselves subject to insecurity. Studies on the Uvira and Fizi territories report cases of population displacement from the hinterland to the coast due to conflicts, which intensifies pressure on already overexploited fisheries resources (UNDP, 2019). Community resilience is also observed through mutual aid and solidarity mechanisms. However, these strategies remain fragile and cannot compensate for the lack of institutional support and the persistence of security threats. Reports from the FAO and NGOs like OXFAM emphasize that lake governance is inefficient, often corrupt, and unable to protect fishermen, which worsens their vulnerability (OXFAM, 2016). Cross-border cooperation, which could be a solution for better management of fish stocks, is also hampered by political tensions, as documented in a report by the East African Community (EAC) on the management of shared resources (EAC, 2015).

1.7 Study Results

Socio-demographic Characteristics of Respondents

The socio-demographic parameters characterizing our study group include the following elements: gender, age, education level, marital status, main activity, and number of dependent children.

Questionnaire Response Rate

Detailed questionnaires were designed and distributed to allow us to establish the correlation between fishing and the security crisis, its impact on Uvira's fishing communities, food or nutrition, the surrounding populations benefiting from the services offered by fishermen, and the country's development. To make this analysis more complete, a questionnaire was printed, distributed, and completed, and a total of 95 were filled out and returned, which represented a 100% response rate for us. The response rate is considered satisfactory for the study. This response rate was good and representative and is consistent with the stipulation of Mugenda and Mugenda (2003) that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good, and a response rate of 70% or more is excellent. The response rate demonstrates the willingness of the respondents to participate in the study.

Table 1 below shows the number of questionnaires distributed and the number of questionnaires returned by respondents, including their response rate as a percentage.

Table 1: Response Rate

	Respondents		Questionnaires Distributed	Questionnaires Returned Response Rate
95		95		100%

Source: Survey Results, March-July 2025

Distribution of Respondents by Gender

As we can see in the previous table, the fishermen operating on Lake Tanganyika on the Kalundu, Kilomoni, and Kavimvira beaches are all of the same sex (male). The table below shows their number.

Table 2: Gender

Gender	Number	Percentage (%)
Male	75	79%
Female	20	21%
Total	95	100%

Source: Survey Results, March-July 2025

Table 2 present the distribution of respondents by gender. It emerges from this table and graph that out of the 95 people surveyed, 75 are male (78.95%), which constitutes the majority, and 20 people (21.05%) are female.

Distribution of Respondents by Age

As we can see, fishing is carried out by people of different age groups, as are the beneficiaries of the services offered by fishermen and the multiple services and stakeholders in the Uvira area. This justifies the fact that the different groups of people interviewed do not have the same age. The table below shows their number according to each age group.

Table 3: Age

Age	Number	Percentage (%)
18-25	15	16%
26-35	25	26%
36-40	20	21%
41-50	20	21%
51 and over	15	16%
Total	95	100%

Source: Survey Results, March-July 2025

Table 3 present the distribution of respondents by age. It emerges from this table and graph that out of the 95 people surveyed, 60 are between 18 and 40 years old, representing 63% (of the interviewees are young), 35 others are between 41 and 50 years old (advanced age), representing 21%, and only 15 people, or 16%, are 51 years and older. It should be noted that the majority of respondents are between 18 and

40 years old. This is due to the high unemployment rate, according to the opinions expressed by each of them in the comments section reserved for them on the questionnaire.

Distribution of Respondents by Marital Status

During our survey, we found that fishermen, beneficiaries of fishing products, stakeholders, agents of different lake and maritime services have different statuses. The table below shows the distribution of respondents by their marital status.

Table 4: Marital Status

Marital Status	Number	Percentage (%)
Single	10	11%
Married	80	84%
Divorced	0	0%
Widowed	5	5%
Total	95	100%

Source: Survey Results, March-July 2025

Table 4 present the distribution of respondents by their marital status and show that 10 people (11%) are single, 80 people (84%) are married, 0 people (0%) are divorced, and 5 people (5%) are widowed. We found that the majority of our respondents are married with children, thus having great responsibility within their respective families.

Table 5: Distribution of Respondents by Education Level

Fishermen, resellers, fishing service agents, as well as other layers of stakeholders differ in their level of education. Here we will group them according to their level of study or education.

Qualification	Number	Percentage (%)
Never attended school	10	10.5%
Primary	15	15.8%
Secondary	55	57.9%
Bachelor's/License	15	15.8%
Total	95	100%

Source: Survey Results, March-July 2025

From Table 5, we can observe that 10 people (10.5%) have never attended school, 15 people (15.8%) have a primary education, 55 people (57.9%) have a secondary education, and 15 people (15.8%) have a bachelor's/license degree. The majority of our respondents have a secondary education level, representing 57.9% of the sample, while only 10.5% have no education level. According to this table, we find that our respondents generally have an average education level, as the concentration is around the secondary level. This is justified by the lack of personal financial means to pay academic fees and the heavy family burden borne by most of them, given the high number of young people who married early. This has prompted a large number of young people to take up fishing.

Table 6: Distribution of the Sample by Number of Dependents

Number of Children	Number	Percentage (%)
0	10	11%
1 to 5	25	26%
6 to 10	35	37%
11 to 15	25	26%
Total	95	100%

Source: Survey Results, March-July 2025

Table 6 presents the distribution of interviewed people according to the number of people in their care. It shows that the majority of our respondents, 85 people (89%), are heads of households and have dependents within the range of 1-15. Meanwhile, 10 people (11%) have no dependents; they are single with no children.

Table 7: Distribution of the Sample by Categories of People Interviewed

Categories of Interviewees		Number	Percentage (%)
Fishermen		50	52.6%
Resellers		10	10.5%
Cooperative Heads		10	10.5%
Fishing Service Agents		10	10.5%
Local	Authority	10	10.5%
Representatives			
NGO Members		5	5.3%
Total		95	100%

Source: Survey Results, March-July 2025

The findings of this study establish that fishing communities in the Great Lakes region in general, and those in Uvira in particular, face several major constraints.

Persistent Insecurity: This is driven by the presence of armed groups on the shores and in the shared waters (DRC-Burundi), leading to extortion, theft of equipment, physical violence against fishermen, and restrictions on access to certain fishing zones deemed dangerous.

Weak Institutional Support: This includes a lack of clear public policies for managing fisheries resources, limited presence of fishing services or lake surveillance, and jurisdictional conflicts between local services and naval forces.

Degradation of the Lacustrine Ecosystem: This is characterized by overfishing, pollution, illegal fishing or the use of destructive gear, and the progressive reduction of fish stocks in certain areas.

Limited Access to Infrastructure: Communities lack a reliable cold chain, processing equipment (smokehouses, ice chests), and face poor road conditions between landing sites and markets.

Marketing Challenges: These are marked by price fluctuations, dependence on dominant intermediaries, and difficulties accessing formal or cross-border markets due to insecurity or illegal taxes.

Increased Social Vulnerability: This is evident in structural poverty, a lack of access to basic social services (health, education), and the marginalization and exploitation of women in decision-making roles.

Cross-Border Conflicts: Tensions exist between fishermen from different countries (DRC, Burundi, Tanzania) over fishing zones, often resulting in arrests or the seizure of equipment by foreign forces when fishermen cross lacustrine borders.

Community-Led Resilience and Adaptation

In the face of these challenges, Uvira's fishing communities have adopted a wide range of alternatives and coping strategies. These include:

Formation of Cooperatives: They form small fishing cooperatives or solidarity groups to pool resources like nets and canoes.

Strengthened Local Security: Communities reinforce beach surveillance and engage in collective negotiation with authorities or armed groups.

Income Diversification: They diversify their livelihoods through small-scale commerce, agriculture, artisanal crafts, and motorcycle-taxi services for young people.

Post-Capture Processing: They develop small-scale units for smoking, drying, or salting fish to mitigate post-capture losses caused by market access disruptions.

Negotiation with Armed Groups: Lacking official protection, some fishermen occasionally negotiate informal "rights of passage" or pay "taxes" to armed groups to access certain areas.

Collaboration with NGOs: They collaborate with local NGOs and customary authorities to report abuses, raise awareness of fishermen's rights, and advocate for targeted security interventions.

Despite the persistent difficulties, a significant number of community members demonstrate remarkable commitment and dynamism in their activities at various beaches (e.g., Kalundu, Kilomoni). However, these initiatives are often informal, lacking the technical and legal means to be structured effectively. They are growing, especially among households affected by fishing losses, but the gains remain small and precarious. The practices, though common, particularly among women, are limited by a lack of modern equipment, training, and access to more profitable markets. The reliance on risky and unstable coping mechanisms exposes fishermen to new forms of exploitation. Furthermore, ongoing initiatives are constrained by fear, a lack of access to information, and the absence of provincial or national-level support networks.

Despite their engagement and demonstrable resilience through varied coping strategies, fishing communities remain hindered by the aforementioned constraints. These challenges contribute to the inefficiency and ineffectiveness of their activities, thus impeding their prosperity and their potential contribution to national development. Without more robust institutional, logistical, and security support, these community-led alternatives, though a testament to their adaptability, remain fragile and often unsustainable. In essence, fishing communities cannot guarantee the durability of their alternatives without structured and secure external support.





View of Fishermen on Lake Tanganyika During the Daytime: Uvira, July 20, 2025

The images above illustrate how fishermen are compelled to carry out their activities during the daytime due to the pervasive security instability that characterizes the Great Lakes region in general, and Uvira specifically.

This has a detrimental impact on the yield of their work, as the nighttime is the most opportune time for them to catch fish in large quantities.

Discussion Of Results

In light of this research, the discussion of our results will take into account the following points:

To make an inventory of the current situation of fishermen's activities in order to understand the impact of security crises on the continuous activities of fishermen frequenting Lake Tanganyika, particularly on the Kalundu, Kilomoni, and Kavimvira beaches.

To measure the level of satisfaction of fishermen with different state and maritime services.

That is, to identify the constraints that hinder the social and economic development of fishermen and different layers of beneficiaries of the services offered by fishermen.

The economic impact of fishing and the mechanisms to be integrated to rationally improve the living conditions of fishermen and contribute to their fulfillment.

Our central hypothesis posits that security instability has negative impacts on Uvira's fishing communities (regular activities of fishermen, income from fishing, and food security). From this global hypothesis, the subsidiary hypotheses break down as follows:

H1: The presence and activities of armed groups on Lake Tanganyika and in the surrounding areas have a direct and significant impact on the decrease in fish catches and on the safety of Uvira fishermen.

H2: The security crisis leads to a degradation of the socio-economic conditions of fishing communities, manifested by a drop in income, an increase in poverty, and food insecurity.

H3: Uvira's fishing communities implement adaptation and resilience strategies (such as changing fishing hours, displacement, or diversification of activities) to cope with the security crisis, but these are often insufficient to ensure their long-term survival.

1.8 Conclusion

At the end of this work, we can say that this study on the issue of "Fishing and Security Crisis in the Great Lakes Region: Impact on the Fishing Communities of Uvira" had as its main objective to analyze the multidimensional consequences of the security crisis on the fishing communities of Uvira. The way the security crisis has disrupted conditions of access to the lake, market interactions, and local security arrangements, thus causing a degradation of the socio-economic conditions of fishing communities, a drop in income, an increase in poverty and food insecurity, as well as other universal or particular constraints that fishermen face, was analyzed in order to propose ways and means to make them true agents of change. The study shows that security instability in the city of Uvira has major economic, social, and institutional consequences on fishing communities. It affects the quantity of fish caught, the income generated, social dynamics, and local organizational systems (changing fishing hours, displacement, or diversification of activities). This is despite the local adaptation strategies put in place, such as enhanced community cooperation, diversification of economic activities, security and alert mechanisms, local dialogue with stakeholders, and the promotion of fish processing and preservation, as well as training and awareness, although these are limited by the absence of strong state support.

We do not believe we have exhausted this topic, which is why we leave the door open for other future researchers to go further into other dimensions that we were unable to explore.

1.9 Recommendations

In view of all that has been mentioned, we would like to address the following recommendations to the

a) Congolese State:

Strengthen the institutional presence of the State on the lake areas by securing beaches and trade routes. Support fishing cooperatives through financing, training, and equipment programs.

Involve women in governance and post-conflict adaptation mechanisms for fishing.

Establish regional coordination (Burundi – DRC – Tanzania) for the secure and sustainable management of Lake Tanganyika's fisheries resources.

Promote local action research to co-construct solutions adapted to the security context with fishermen. It should be noted that these recommendations aim to restore not only economic activity but also the dignity and resilience of the fishing communities living in Uvira.

b) Fishing Communities of Uvira

To the fishing communities of Uvira City, the study recommends: Strengthen fishing cooperatives and local solidarity; Diversify income sources to reduce dependency on the lake; Srengthen a community-based alert and information—sharing system; and Promote small-scale fish processing and preservation

References

- Adger, W. N. (2000), Social and ecological resilience: Are they related? *Progress in Human Geography*, 24(3), 347-364.
- ActionAid. (2022), Women, conflicts and economic resilience in the fishing zones of the DRC. Regional report.
- Bayart, J.-F. (2004), The State in Africa: The politics of the belly. Fayard.
- Büscher, K. (2011), Conflict, state failure and urban transformation in the Eastern DR Congo. *Peacebuilding Journal*.
- Carney, D. (1998), Sustainable livelihoods: What are they and how do they relate to poverty reduction? Livelihoods Guidance Sheets, DFID, London.
- EAC (East African Community) (2015), Report on the cross-border management of Lake Tanganyika fisheries resources.
- CEFAD (Center for the Study of Wildlife and Freshwater), (2018) *Impact of insecurity on fishing activities and biodiversity in Virunga National Park*.
- FAO (Food and Agriculture Organization of the United Nations), (2017) State of fisheries and aquaculture of Lake Tanganyika.
- International Crisis Group. (2021), Averting intercommunal violence in the DRC's Uvira Region. ICG Briefing Paper.
- IRECG (Institute for Research and Study on Conflict and Governance)(2019), Conflicts and livelihoods in North Kivu: The case of fishing communities.
- Matthew, R. A., Barnett, J., McDonald, B., & O'Brien, K. (2009), Global environmental change and human security. The MIT Press.
- Mugabe, A. (2012), The socio-economic role of fisheries on Lake Albert, Uganda.
- Mutabazi, M. (2020), Socio-economic dynamics of fishing in the territory of Uvira in the face of chronic insecurity. (Master's thesis, University of South Kivu).
- ILO (International Labour Organization). (2018), Report on precarious work in the informal sector of the DRC.
- OXFAM. (2016) Analysis of the vulnerabilities of fishing communities in the province of South Kivu, DRC.

UNDP (United Nations Development Programme), (2019) Report on population displacement and access to resources in Eastern DRC.

UNDP (United Nations Development Programme). (2023), Security, fishing and local development in the lake areas of Eastern DRC. Regional Great Lakes Program.

Turner, T. (2005). The Congo Wars: Conflict, myth and reality. Zed Books.

UNHCR. (2022), Forced displacement and economic activities in the border areas of South Kivu.

World Bank. (2020). Economic resilience in conflict-affected regions. Africa Pulse Report.