Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

A Qualitative Case Study on Socio-Economic Deficiency and Causes of Illegal Fishing in the Riverine Biodiversity of Eastern Cape, South Africa.

Sibonelo Thanda Mbanjwa
Mangosuthu University of Technology P.O. Box 12363 Jacobs 4026 Durban, South Africa

Abstract

Background

Small-scale fishers in South Africa, particularly in the Western Cape, Eastern Cape, and KwaZulu-Natal, have historically faced exclusion from marine resource access and fishing rights. Despite policy reforms, Illegal, Unreported, and Unregulated (IUU) fishing continues to threaten their livelihoods and the sustainability of coastal ecosystems. This study assesses the socio-economic impacts of IUU fishing and evaluates the effectiveness of recent regulatory reforms aimed at addressing fisher marginalization.

Methods

A mixed-methods approach was adopted, combining semi-structured interviews with 83 small-scale fishers and 10 policymakers, and quantitative analysis of fishing rights allocation data and economic loss indicators. The study applied a poverty, vulnerability, and marginalization framework to assess both policy outcomes and lived community experiences.

Results:

Findings indicate moderate progress through initial rights allocation and stakeholder engagement. However, over 65% of fishers reported income loss due to IUU fishing, and 54% experienced declining food security. Despite new regulatory frameworks, 42% of eligible fishers remain excluded due to restrictive eligibility criteria, and 29% perceive the process as influenced by elite capture. Only 18% had access to alternative livelihoods. Enforcement remains inadequate, with 71% citing poor monitoring of IUU fishing, which continues to erode legal fishers' efforts and ecosystem stability.

Conclusion

While current reforms are a step forward, weak enforcement, exclusionary rights allocation, and limited livelihood alternatives undermine their effectiveness. These challenges reduce the resilience of small-scale fisheries and threaten long-term sustainability.

Recommendations

To improve outcomes, enforcement of IUU fishing regulations must be strengthened, eligibility criteria broadened, and targeted support provided for alternative livelihoods. A more inclusive, community-driven approach is essential for sustainable fisheries governance in South Africa.

Keywords: *Marginalization, Illegal, Unreported, Unregulated (IUU)***,** *COVID-19, Non-Governmental Organizations (NGOs), Gross Domestic Product GDP.*
Submitted: *2025-03-24* ***Accepted:*** *2025-04-30* ***Published:*** *2025-06-01*
Corresponding Author: *Sibonelo Thanda Mbanjwa*
Email: ***mbanjwa.sibonelo@mut.ac.za***
Mangosuthu University of Technology P.O. Box 12363 Jacobs 4026 Durban, South Africa

Introduction

Illegal, Unreported, and Unregulated (IUU) fishing remains a critical challenge to sustainable fisheries management in South Africa, particularly in the Eastern Cape. This region is home to numerous small-scale fishing communities that rely on marine resources for their livelihoods and food security. However, despite legal reforms aimed at promoting equitable access to fishing rights, small-scale fishers continue to face systemic marginalization, exacerbated by the presence of IUU fishing. The depletion of fish stocks, competition with illegal operators, and insufficient policy enforcement further threaten their economic stability and well-being. This study investigates the socio-economic and environmental impacts of IUU fishing on small-scale fishers in the Eastern Cape, assessing the effectiveness of existing regulatory frameworks in addressing these challenges. Using a mixed-methods approach, the research combines qualitative interviews with fishers, policymakers, and

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

conservation authorities with quantitative data analysis on fish stock trends and rights allocation. The study applies a poverty, vulnerability, and marginalization framework to explore how IUU fishing contributes to the continued exclusion of small-scale fishers and evaluates potential policy solutions.

The findings indicate that while progress has been made in recognizing the rights of small-scale fishers, challenges remain in enforcement, resource allocation, and protection against large-scale and illegal operators. Small-scale fishers struggle with restrictive eligibility criteria, limited support for alternative livelihoods, and inadequate involvement in decision-making processes. Additionally, IUU fishing undermines conservation efforts and worsens socio-economic disparities within coastal communities. By shedding light on these critical issues, this study emphasizes the need for more inclusive and participatory policy reforms, improved enforcement strategies, and stronger collaboration between government agencies, local fishers, and conservation organizations. Addressing IUU fishing and ensuring equitable resource access are essential steps toward promoting sustainable fisheries and enhancing the resilience of small-scale fishing communities in South Africa's Eastern Cape.

Objectives of the study

To provide policy recommendations for enhancing small-scale fishers' socio-economic resilience, strengthening enforcement against IUU fishing, and promoting inclusive fisheries governance.

Methodology

Study Design

This study adopted a cross-sectional mixed-methods design, combining qualitative and quantitative approaches to assess the socio-economic impact of IUU fishing and evaluate the effectiveness of fisheries policy reforms in coastal communities of the Eastern Cape, South Africa.

The Study Area

Figure 1: Aerial photography of the Tyolomnqa mouth region (Google Maps Images)

Description of Tylomnqa River

The Tyolomnqa River (English: Chalumna) is a small but ecologically and historically significant river located in the Eastern Cape, South Africa. Stretching approximately 78 kilometers, it originates at the confluence of two minor rivers, the Qugwala in the west and the Mtyolo in the east, and flows into the Indian Ocean through an estuary near Kaisers Beach. With a catchment area of 441 km², the

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

Tyolomnqa is among the smallest river basins along South Africa's eastern coastline. Key tributaries include the Nyatyora, Nxwashu, Quru, and Mpintso on the left bank and the Rode, Twecu, and Tsaba on the right bank. The river supports aquatic life such as the African longfin eel (Anguilla mossambica). The Tyolomnqa River is best known for its link to a landmark scientific discovery. In 1938, near the river's mouth, Captain Hendrik Goosen trawled a catch of fish, among which Marjorie Courtenay-Latimer preserved a strange specimen. This fish was later identified as a coelacanth, a species thought to be long extinct and previously known only from fossils. This discovery led to the coelacanth being scientifically named Latimeria chalumnae, immortalizing the river's legacy in global natural history.

Historically, the Tyolomnqa River marked the northern boundary of the former Ciskei until the end of apartheid on 27 April 1994, when South Africa's fragmented political regions were reintegrated. Today, a portion of the east bank of the Tyolomnqa Estuary has been developed into a residential area for low-income or unemployed residents, following its purchase by the Tyolomnqa Conservancy, according to Wood (2002). In contrast, the West Bank remains steeper and more agriculturally active, supporting crops and cattle farming along its length. The estuary lies within the jurisdiction of the Buffalo City Council and is jointly monitored by the Department of Environment Affairs and Tourism (DEAT) and Marine and Coastal Management under Buffalo City Marine Services. Three key communities form the Tyolomnqa River Mouth Fishery: Pozi Village, Dyam-Dyam, and Kaisers Beach, all located approximately 40–50 kilometers south of East London along the R72 national road. Pozi Village and Dyam-Dyam are near one another, separated by just 1–2 kilometers, and easily accessible. However, Kaisers Beach, situated on the northern bank near the river mouth, is separated from the southern villages by the river itself, requiring a detour of more than 10 kilometers by road to cross. This geographical division underscores the river's role not only as a natural feature but also as a barrier shaping community interaction and access.

Study Setting

The research was conducted between January 2024 and March 2025 in three villages situated along the Tyolomnqa River in the Eastern Cape Province: Pozi Village, Dyam-Dyam, and Kaisers Beach. These rural communities rely heavily on riverine and coastal resources for subsistence fishing and have been identified as vulnerable to the effects of IUU fishing and policy exclusion.

Participants

Participants included small-scale fishers and policymakers. Eligibility criteria required that fishers be actively engaged in subsistence fishing in the area for at least one year and be residents of the selected communities. Extension officers assisted in the identification and recruitment of participants. From over 200 individuals who expressed interest, 83 fishers were selected (29 from Kaisers, 21 from Dyam-Dyam, and 33 from Pozi Village). Additionally, 10 policymakers from local and provincial fisheries departments were included. Before participation, all individuals were briefed on the study's purpose and ethical considerations.

Bias

To minimize selection bias, participants were recruited with the assistance of local extension officers who had in-depth knowledge of the communities. Response bias was addressed by ensuring confidentiality, using local languages in interviews, and training interviewers to avoid leading questions. Researchers remained neutral during data collection and analysis to reduce observer bias.

Study Size

The study size was determined based on the estimated number of active small-scale fishers in the region and logistical feasibility. From the pool of interested fishers, a purposive sample of 83 participants was selected to ensure sufficient variation across gender, village location, and fishing experience. The inclusion of 10 policymakers provided complementary perspectives for triangulation.

Data Collection

Data were collected using both qualitative and quantitative methods:

- Qualitative data: Semi-structured interviews were conducted with 83 fishers and 10 policymakers to gather in-depth insights on experiences with IUU fishing, policy reforms, and socio-economic challenges.
- Quantitative data: Survey questionnaires captured data on income levels, access to permits, enforcement experiences, and livelihood diversification. Secondary data sources included policy documents and permit allocation records.

Before the interviews, participants received a briefing on biodiversity conservation and sustainable fishing practices to contextualize the research.

Statistical Methods

Quantitative data were analyzed using descriptive statistics (frequencies, percentages, and means) to summarize socio-economic indicators and policy impacts. Data were processed using SPSS Version 27. Missing data were handled through listwise deletion for incomplete survey responses, while qualitative gaps were addressed during

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

follow-up interviews. Qualitative data were analyzed thematically using Braun and Clarke's six-phase approach to identify patterns related to vulnerability, exclusion, and enforcement.

Ethical Considerations

Ethical approval for this study was obtained from the Research Ethics Committee of Mangosuthu University of Technology (MUT). Informed consent was obtained from all participants, who were briefed on the study's purpose, their rights, and the voluntary nature of their participation. Consent was documented either in writing or verbally, with third-party witnesses present for participants with limited literacy. To ensure confidentiality, all personal data were anonymized, securely stored, and used strictly for research purposes, with no identifiable information disclosed in any publications. The study posed no physical risk to participants; however, due to the sensitivity of topics such as poverty and illegal fishing, interviews were conducted with care, and participants were free to decline to answer any questions without consequence. In the spirit of transparency and community empowerment, a summary of the research findings was shared with participants and relevant local stakeholders. The study also prioritized environmental and social responsibility by integrating traditional knowledge and local perspectives to support biodiversity conservation while promoting sustainable livelihoods in fishing communities.

Results:

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

Table 1: Socio-demographic characteristics and fishing practices of small-scale fishers, including age, gender, residence status, employment status, equipment used, estimated catch, purpose for fishing, and bait type.

	Age	Age/M	Age/F	Residence	Employment	Duration (Hrs.)	Equipment	Est catch	Purpose	Bait type
1	39		39	KB	Part Time	3 to 4 hours	RR	5	SF	various
2	59	59		KB	unemployed	whole day	Net	25	SF	n/a
3	42		42	KB	unemployed	whole day	RR	4	SF	sand prawn
4	47	47		KB	Part Time	3 to 4 hours	RR	3	SF	mudprawn
5	52	52		KB	unemployed	6 to 8 hours	RR	5	SF	sand prawn
6	44		44	KB	unemployed	whole day	RR	4	SF	mudprawn
7	57	57		KB	unemployed	whole day	Net	15	SF	n/a
8	52	52		KB	Part Time	3 to 4 hours	RR	6	SF	various
9	39		39	KB	unemployed	whole day	RR	4	SF	various
10	37		37	KB	unemployed	6 to 8 hours	RR	5	SF	mudprawn
11	32	32		DD	Part Time	3 to 4 hours	Net	15	SF	n/a
12	45	45		DD	unemployed	whole day	Net	20	SF	n/a
13	48	48		DD	unemployed	whole day	RR	5	SF	various
14	48		48	DD	unemployed	6 to 8 hours	RR	5	SF	various
15	43		43	DD	Part Time	3 to 4 hours	RR	3	SF	various
16	44		44	DD	Part Time	3 to 4 hours	RR	4	SF	mudprawn
17	39	39		DD	unemployed	6 to 8 hours	Net	15	SF	n/a
18	27	27		DD	unemployed	whole day	RR	6	SF	sand prawn
19	40		40	DD	unemployed	whole day	RR	3	SF	mudprawn
20	35		35	DD	unemployed	6 to 8 hours	RR	4	SF	sand prawn
	Age	**Age/M**	**Age/F**	**Residence**	**Employment**	**Duration(Hrs.)**	**Equipment**	**Est catch**	**Purpose**	**Bait type**
21	53	53		DD	unemployed	whole day	Net	20	SF	n/a

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

22	49	49		DD	Part Time	3 to 4 hours	RR	4	SF	various
23	44		44	DD	unemployed	6 to 8 hours	RR	4	SF	various
24	52	52		KB	unemployed	whole day	RR	5	SF	mudprawn
25	47		47	KB	unemployed	whole day	RR	3	SF	sand prawn
26	45		45	KB	Part Time	3 to 4 hours	RR	4	SF	sand prawn
27	36		36	KB	Part Time	3 to 4 hours	RR	4	SF	mudprawn
28	49	49		KB	unemployed	whole day	Net	20	SF	n/a
29	54	54		KB	unemployed	6 to 8 hours	Net	15	SF	n/a
30	38		38	KB	unemployed	whole day	RR	4	SF	various
31	41		41	KB	Part Time	3 to 4 hours	Net	15	SF	n/a
32	59	59		PV	unemployed	whole day	RR	3	SF	mudprawn
33	61	61		PV	unemployed	whole day	Net	20	SF	n/a
34	54	54		PV	unemployed	6 to 8 hours	Net	15	SF	n/a
35	35	35		PV	Part Time	3 to 4 hours	RR	3	SF	mudprawn
36	44		44	PV	Part Time	3 to 4 hours	RR	3	SF	mudprawn
37	40		40	PV	Part Time	3 to 4 hours	RR	4	SF	mudprawn
38	23	23		PV	unemployed	6 to 8 hours	RR	3	SF	mudprawn
39	29	29		PV	Part Time	3 to 4 hours	Net	10	SF	n/a
40	36		36	PV	unemployed	whole day	RR	5	SF	various

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

	Age	Age/M	Age/F	Residence	Employment	Duration(Hrs.)	Equipment	Est catch	Purpose	Bait type
41	54	54		PV	unemployed	whole day	RR	4	SF	sand prawn
42	43		43	PV	unemployed	whole day	RR	4	SF	mudprawn
43	51	51		PV	unemployed	6 to 8 hours	RR	5	SF	mudprawn
44	36		36	PV	Part Time	3 to 4 hours	RR	3	SF	various
45	41		41	PV	Part Time	3 to 4 hours	RR	4	SF	various
46	58	58		PV	unemployed	whole day	Net	15	SF	n/a
47	55	55		PV	unemployed	whole day	RR	3	SF	various
48	41		41	PV	Part Time	3 to 4 hours	RR	4	SF	various
49	34		34	PV	Part Time	3 to 4 hours	RR	4	SF	various
50	52	52		KB	unemployed	6 to 8 hours	RR	3	SF	mudprawn
51	45	45		KB	Part Time	3 to 4 hours	Net	10	SF	n/a
52	43		43	KB	unemployed	whole day	RR	4	SF	mudprawn
53	54	54		KB	unemployed	whole day	RR	3	SF	various
54	44		44	KB	unemployed	6 to 8 hours	RR	4	SF	various
55	39		39	KB	unemployed	6 to 8 hours	RR	5	SF	various
56	59	59		PV	unemployed	whole day	Net	15	SF	n/a
57	54	54		PV	unemployed	whole day	RR	3	SF	various
58	43	43		PV	Part-Time	3 to 4 hours	Net	20	SF	n/a
59	38		38	PV	Part Time	3 to 4 hours	RR	2	SF	various
60	52	52		PV	unemployed	6 to 8 hours	Net	15	SF	n/a
	Age	Age/M	Age/F	Residence	Employment	Duration(Hrs.)	Equipment	Est catch	Purpose	Bait type
61	44	44		PV	unemployed	6 to 8 hours	RR	4	SF	various
62	49		49	PV	Part Time	3 to 4 hours	Net	18	SF	n/a

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

63	45		45	PV	unemployed	whole day	RR	4	SF	various
64	36	36		DD	Part Time	3 to 4 hours	RR	4	SF	various
65	50	50		DD	unemployed	whole day	Net	15	SF	n/a
66	45	45		DD	unemployed	whole day	RR	3	SF	various
67	42		42	DD	unemployed	whole day	RR	2	SF	various
68	39		39	DD	unemployed	6 to 8 hours	Net	15	SF	n/a
69	58	58		KB	unemployed	whole day	Net	20	SF	n/a
70	52	52		KB	unemployed	6 to 8 hours	RR	3	SF	mudprawn
71	29	29		KB	Part Time	3 to 4 hours	RR	4	SF	mudprawn
72	34		34	KB	unemployed	6 to 8 hours	RR	3	SF	mudprawn
73	41		41	KB	unemployed	whole day	RR	2	SF	mudprawn
74	45	45		PV	unemployed	whole day	Net	10	SF	n/a
75	47	47		PV	unemployed	whole day	Net	15	SF	n/a
76	41		41	PV	Part Time	3 to 4 hours	RR	4	SF	mudprawn
77	52	52		PV	unemployed	6 to 8 hours	Net	15	SF	n/a
78	48	48		PV	unemployed	6 to 8 hours	RR	4	SF	various
79	47		47	PV	unemployed	whole day	Net	18	SF	n/a
80	39		39	PV	Part Time	3 to 4 hours	RR	3	SF	mudprawn
	Age	**Age/M**	**Age/F**	**Residence**	**Employment**	**Duration(Hrs.)**	**Equipment**	**Est catch**	**Purpose**	**Bait type**
81	55	55		DD	unemployed	whole day	Net	15	SF	n/a
82	47	47		DD	Part Time	3 to 4 hours	RR	20	SF	various
83	49	49		DD	unemployed	whole day	Net	10	SF	n/a

KB = Kaisers Beach, DD = Dyam-Dyam, PV = Pozi Village, SF = Sales and Food, Age/F = Age of female respondent, Age/M = Ageof male respondent, Est Catch = Estimated catch, RR = Rod and Reel, SF = Sales and Food, Whole day = above 9 hours of fishing

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

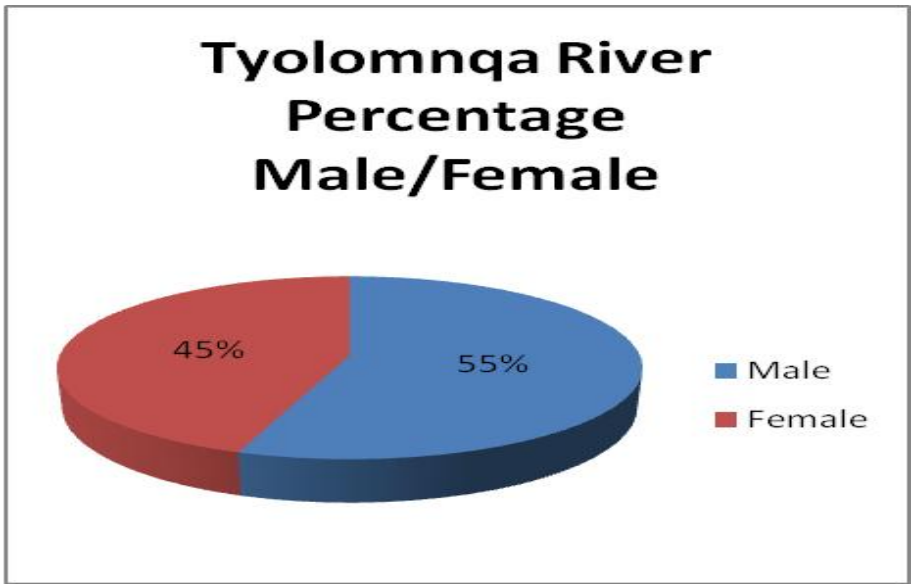


Figure 1: The graph indicating the percentage of male and female fishers along the Tyolomnqa River.

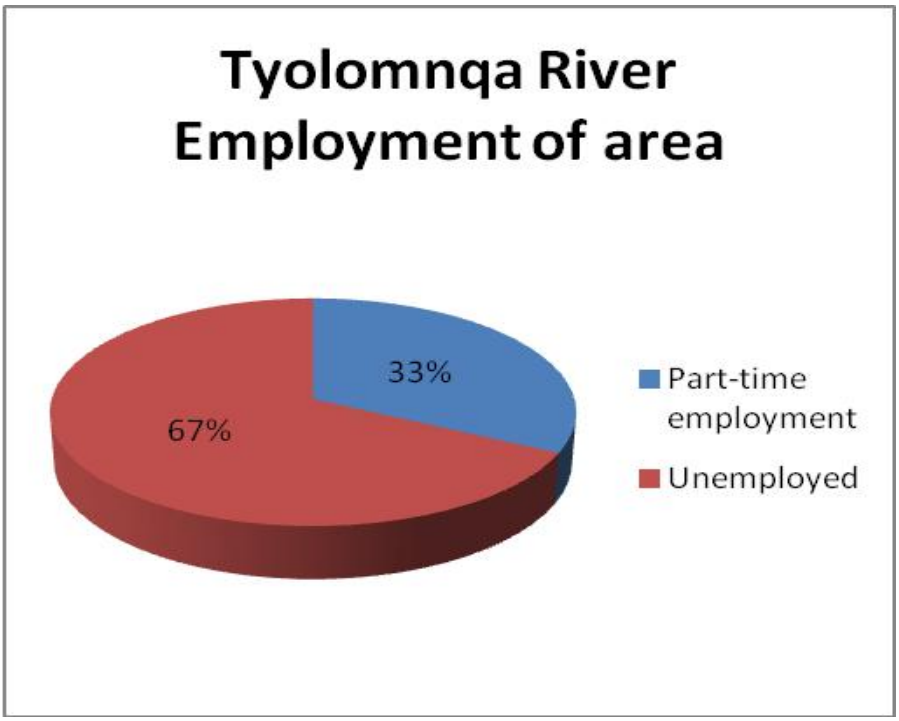


Figure 2: The graph indicating the employment of the community of the fishers along the TyolomnqaRiver.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

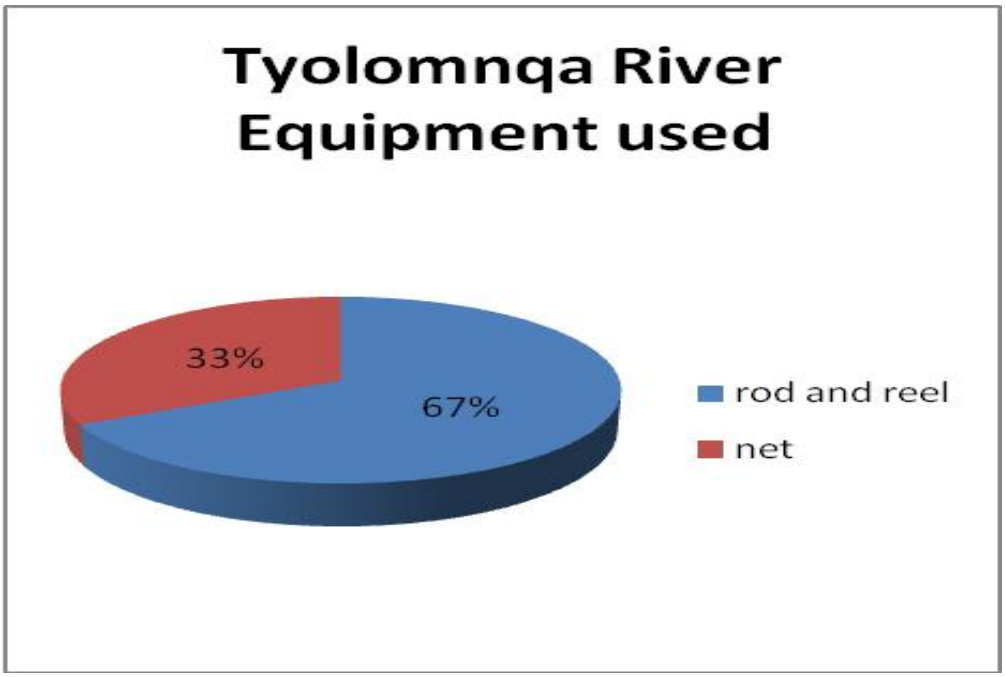


Figure 3: Graph indicating the different equipment used by fishers along the Tyolomnqa River.

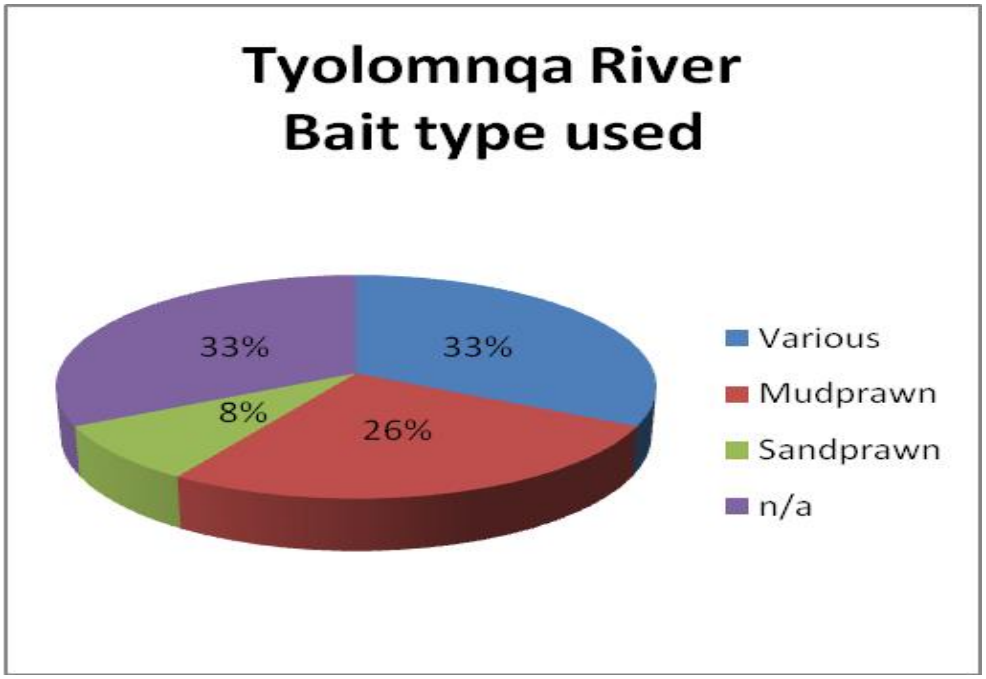


Figure 4: The graph indicating different bait species used by the fishers along the Tyolomnqa River.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

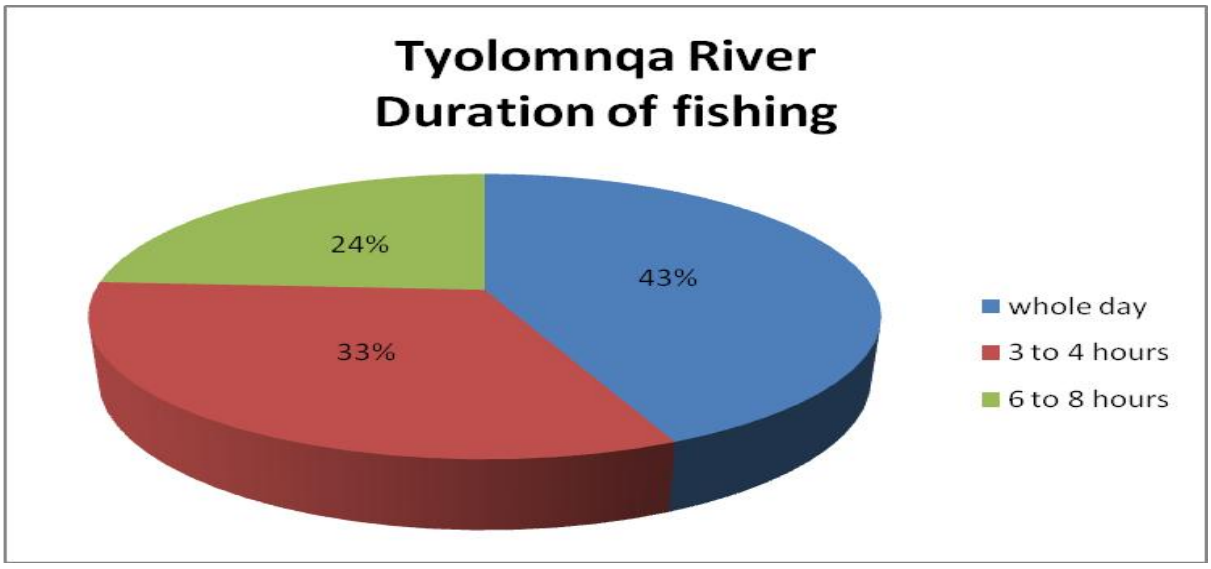
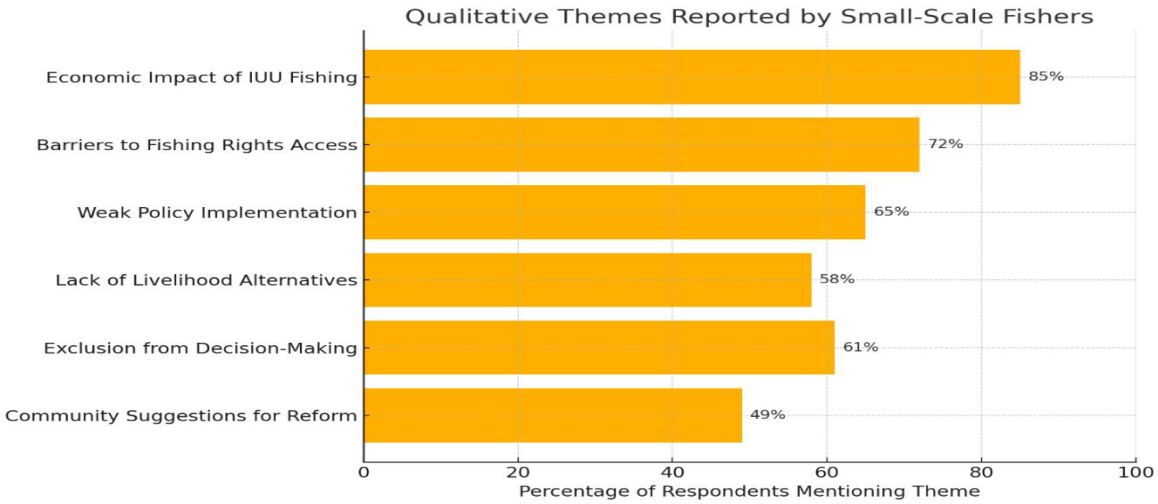


Figure 5: The graph indicating the duration of fishing done by the fishers along the Tyolomnqa River.

The qualitative results (Figure 6) reveal that the most pressing issue for small-scale fishers is the economic hardship caused by IUU fishing, reported by 85% of participants, highlighting its severe impact on income and food security. Barriers to accessing fishing rights (72%) and weak policy implementation (65%) further exacerbate their vulnerability, as many feel excluded by restrictive eligibility criteria and ineffective enforcement. Over 60% expressed frustration at being excluded from decision-making processes, while 58% reported having no viable alternative livelihoods, increasing their dependence on increasingly scarce fisheries resources. Despite these challenges, nearly half of the respondents offered community-driven solutions, such as simplifying permit processes, strengthening enforcement, and creating cooperative-based initiatives. These findings underscore the need for inclusive, well-resourced policy implementation and community engagement to address systemic marginalization and promote sustainable, resilient livelihoods for small-scale fishers.



Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

Figure 6: The graph represents the horizontal bar chart illustrating the qualitative themes reported by small-scale fishers.

Figure 7 presents critical insights into the challenges faced by small-scale fishers in the Eastern Cape. The most prominent issue is poor enforcement of IUU regulations, reported by 71% of respondents, indicating a significant gap in regulatory oversight that allows illegal activities to persist and undermines legitimate fishers. Income loss due to IUU fishing follows closely at 65%, demonstrating that the unchecked presence of illegal fishers is directly impacting the financial stability of local communities. Additionally, 54% of respondents reported a decline in food security, reinforcing the socio-economic impact of declining fish stocks and reduced fishing opportunities. Barriers to formal participation in the sector are also evident. 42% of fishers were excluded from fishing rights due to restrictive eligibility criteria, while 29% perceived the process to be captured by elites, suggesting governance challenges and unequal access to resources. Alarmingly, only 18% of respondents reported having access to alternative livelihoods, indicating a high level of economic dependency on fishing and limited resilience options. Overall, the graph underscores the urgent need for stronger enforcement, inclusive policy reform, and livelihood diversification to reduce vulnerability and improve sustainability in small-scale fishing communities.

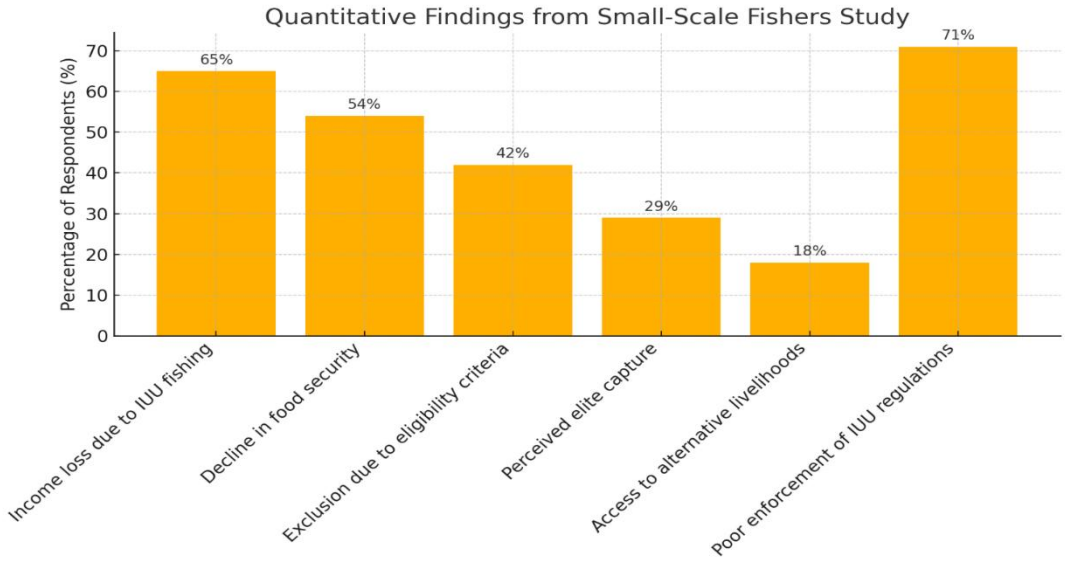


Figure 7: The graph displaying the quantitative results from the study.

Discussion of Findings

The findings of this study reveal a complex interplay between socio-economic vulnerability, governance shortcomings, and environmental degradation, all of which significantly impact the sustainability and resilience of small-scale fisheries in the Eastern Cape, South Africa. Illegal, Unreported, and Unregulated (IUU) fishing emerged as a dominant concern across both qualitative and quantitative data. Quantitatively, 65% of respondents reported income loss, 54% noted food insecurity directly linked to IUU fishing, and 71% criticized enforcement agencies for failing to curb these practices. Qualitative responses confirmed this reality, with fishers describing how illegal operators outcompete them using superior equipment and unregulated methods, leaving legitimate fishers with reduced catches. This not only weakens household economies but also depletes fish stocks, threatening biodiversity and long-term sustainability.

The study also exposed systemic barriers to accessing fishing rights. Quantitative data showed that 42% of eligible fishers were excluded due to restrictive eligibility criteria, and 29% believed the system was captured by elites. These figures were echoed in interviews, where participants expressed frustration with a bureaucratic process that benefits the politically connected while excluding those most reliant on fishing. This exclusion undermines the core objective of fisheries reform, which is to empower marginalized

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

communities through equitable access to resources. Livelihood diversification was another area of concern. Only 18% of fishers reported having access to structured alternative livelihoods. This finding, supported by qualitative accounts, highlights the limited opportunities for fishers, particularly women and youth, to supplement or transition away from fishing. As a result, households remain heavily dependent on a single, increasingly unreliable income source. Without investment in training, enterprise development, or resource access, these communities remain vulnerable to ecological shocks and economic instability. The issue of governance and policy implementation also featured prominently. While both fishers and policymakers acknowledged that small-scale fisheries policies exist, 65% of respondents felt that implementation was weak. Interviews revealed that enforcement agencies lack capacity, coordination, and political will, rendering the policy framework largely ineffective on the ground. Furthermore, 61% of respondents indicated that they were excluded from decision-making processes, a sentiment reinforced by qualitative narratives of marginalization and distrust in government structures. This exclusion contradicts the participatory intent of the policy and limits the effectiveness of reforms. Despite these challenges, nearly half of the participants offered constructive suggestions for reform, such as simplifying the permitting process, strengthening enforcement, and creating cooperatives. This points to a high level of awareness and willingness within communities to contribute to sustainable governance, provided they are given a platform and support.

Conclusions

The Tyolomnqa fishing community appears to be divided into two distinct groups based on their harvesting practices and objectives. One group consists of younger fishers who focus their efforts predominantly on harvesting seaweed and abalone, with much of their catch being directed towards the illegal trade. These younger fishers are driven by the financial incentives provided by the illicit market, which often leads them to concentrate on high-value species that can be easily sold for profit. The second group consists of older, more experienced fishers who have a long-standing tradition of harvesting a variety of marine species, including line fish and other marine and freshwater species. These fishers, who have honed their skills over many years, rely on sustainable fishing practices and typically harvest species that are used for subsistence and local consumption rather than for commercial purposes.

Recommendations

It is recommended that fishing regulations for the Tyolomnqa community take into account these two distinct groups to ensure that the needs and practices of both are appropriately addressed. Specifically, line fish exemptions should be granted only for personal consumption, as this will limit the potential for overfishing and ensure that these resources are used sustainably. Since line fish are an important food source for these fishers, limiting commercial harvesting will prevent the depletion of critical species while allowing for subsistence use. In addition, the harvesting of mussels should be considered for small-scale commercial exploitation, depending on their availability. Mussels are a valuable marine resource that can support small-scale livelihoods for the community. However, any commercial activity must be carefully managed to avoid overharvesting, which could lead to the depletion of mussel populations. By regulating the volume and frequency of mussel harvesting, it is possible to create a sustainable model for small-scale commercial activity while supporting the community's economic needs.

Furthermore, there are concerns among some subsistence fishers, particularly in Pozi Village, about the issuance of fishing permits. Many of these fishers fear that their area may not be granted permits, as extension officers have not been able to provide any assurances about the process. This uncertainty has led some subsistence fishers to attend meetings in other areas, hoping to increase their chances of being granted permits. Unfortunately, this strategy does not improve their chances and instead disrupts meetings elsewhere. A transparent and equitable system for the distribution of fishing permits must be established. A clear communication strategy from the relevant authorities, outlining the criteria for issuing permits and the process by which decisions are made, will help alleviate the concerns of subsistence fishers and ensure a fair and efficient system. Moreover, local authorities and extension officers need to engage directly with the community to address their concerns. Regular community consultations and feedback mechanisms can help build trust and ensure that the permit process is both inclusive and effective. By providing clear guidelines and assurances, fishers can better understand their rights and the regulatory framework, reducing confusion and uncertainty.

Limitations

Despite the comprehensive nature of this research, certain limitations must be acknowledged. One primary limitation was the sample size, as only 83 subsistence fishers were interviewed out of over 200 individuals who initially volunteered. While this number provided valuable insights, it may not fully represent the broader population of fishers in the Tyolomnqa River community. Additionally, the study relied on self-reported data from structured questionnaires and interviews, which could introduce response bias. Participants may have provided answers they deemed socially acceptable rather than their true opinions or behaviors. Another limitation was the geographic scope of the research. The study focused on three villages, Pozi, Dyam-Dyam, and

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

Kaisers, limiting its applicability to other communities with different socio-economic and environmental conditions. While the findings offer a valuable perspective on subsistence fishing in this region, they may not be fully generalizable to other areas where fishing practices, regulatory frameworks, or cultural attitudes differ significantly. Furthermore, the study's reliance on literature searches and institutional reports, such as those from the Department of Environmental Affairs and Tourism and the Eastern Cape Parks Board, means that some secondary data may have been subject to outdated or context-specific interpretations. Additionally, the research did not manipulate variables, as it employed descriptive quantitative methods. This restricts the ability to infer causal relationships between identified issues and observed outcomes.

Generalization

Generalization of the findings is also limited by the specific socio-economic conditions of the Tyolomnqa River community. The experiences of subsistence fishers in this region may not reflect those of fishers in other parts of the country or different regulatory environments. However, the study provides a foundation for future research and policy interventions. To improve generalizability, similar studies could be conducted in various locations, with larger and more diverse sample sizes, and incorporating comparative analyses across different fishing communities.

Biography

Dr. Sibonelo Thanda Mbanjwa is a dedicated lecturer in the Department of Nature Conservation at Mangosuthu University of Technology (MUT), South Africa. He holds a Ph.D. in Environmental Science and specializes in biodiversity conservation, sustainable development, and environmental education. Dr. Mbanjwa is deeply committed to community engagement, student mentorship, and the integration of indigenous knowledge systems into conservation practices. His work bridges academia and practical application, empowering students and communities through innovative teaching, research, and outreach initiatives.

Acknowledgments

We acknowledge the moral support and encouragement from the Deans and HOD of the Department of Nature Conservation, Faculty of Natural Science, Mangosuthu University of Technology.

Funding

This work was not supported by any grant. The author did not receive research support from any company. The authors declare that no funds, grants, or other support were received during the preparation of this manuscript.

Competing Interests

The authors have no relevant financial or non-financial interests to disclose.

Author Contributions

I, the author, contributed to the study conception and design. Material preparation, data collection, and research were performed by Mbanjwa S.T. The first draft was written by Mbanjwa S.T.

Data Availability

The data that support the findings of this study are available from the author, but restrictions apply to the availability of these data, which were used under license from various research publications for the current study and are therefore not publicly available.

Abbreviation List:

IUU - Unreported and Unregulated
NGO - Non-Governmental Organizations (NGOs),
GDP – Gross Domestic Product

References

1. BLANCHARD, J.L., et al., 2012. Global catch projections in marine fisheries. *Science Advances*, 2(1), e1602390.
2. CHIKODZI, D., 2021. Socio-economic development in rural South Africa: Challenges and opportunities. *African Journal of Development Studies*, 24(1), pp.45-62.
3. COELHO, R., et al., 2008. Technological advancements in IUU fishing: A global perspective. *Fisheries Research*, 92(1), pp.17-28.
4. WOOD, A., 2002. The development of management protocols for the sustainable utilization of living resources in the Eastern Cape estuaries. *Unpublished draft document.* Grahamstown: Coastal and Environmental Services.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 6 (2025): June 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i6.1651
Original Article

PUBLISHER DETAILS:

Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
(ISSN 3006-1059) Print
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256 775 434 261
Location: Scholar's Summit Nakigalala, P. O. Box 701432, Entebbe Uganda, East Africa