

**ASSESSING THE IMPACT OF
ILLITERACY ON WOMEN IN
FISHERIES IN SIERRA LEONE:
A CASE STUDY OF TOMBO
AND GODERICH FISHING
COMMUNITIES**

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in partial fulfilment of the requirements for the award of the
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Declaration

I certify that all the materials in this thesis that is not my work will be identified. The contents of this academic research would reflect my personal views and are not necessarily endorsed by the University.

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Abstract

This study assesses the impact of illiteracy on women in the artisanal fisheries sector in Sierra Leone, focusing on two major fishing communities of Tombo and Goderich. Women play a pivotal role in the fisheries sector especially in the value chain activities such as processing, preservation, and marketing, yet their contributions are undervalued and marginalized. Using a mixed methods approach that combined structured questionnaires and semi-structured interviews, the study examines literacy challenges faced by the research targeted group, and the role played by institutional stakeholders in enhancing their literacy and socio-economic empowerment. Results obtained from this study reveal that illiteracy hinders women's ability to access financial services, understand fisheries regulations, negotiate fair market prices, and participate in decision making processes. Thus, stakeholders such as government ministries, NGOs, local fishermen's associations, and donor agencies have implemented various programmes, such as literacy trainings on financial management, processing, and advocacy campaigns. Nonetheless, these interventions are often fragmented, short term, and constrained by limited resources and weak enforcement mechanisms. However, literacy programs were found to positively influence women's confidence, income generation, and leadership roles, playing a critical role in advancing gender equality and sustainable fisheries development. Thus, a comprehensive, multi stakeholder strategy focusing on sustained literacy programs, gender sensitive policies, and infrastructure development is essential for empowering women in Sierra Leone's fisheries sector and achieving Sustainable Development Goals (SDGs) 4 and 5.

Keywords: Fisheries, Women, Illiteracy, Institutional Stakeholders, Value chain, Socio-economic empowerment

List of Abbreviation

CBO	Community Based Organization
CEDAW	Convention on the Elimination of All Forms of Discrimination Agent Women
EEZ	Exclusion Economic Zone
EOI	Embassy of Iceland Sierra Leone
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organisation
GDP	Gross Domestic Production
GEWE	Gender Equality and Women's Empowerment Act
GOSL	Government of Sierra Leone
IMBO	Institute of Marine Biology and Oceanography
IUU	Illegal, Unreported, and Unregulated Fishing
MBSSE	Ministry of Basic and Senior Secondary Education
MDAs	Ministries, Department, and Agencies
MFMR	Ministry of Fisheries and Marine Resources
MOGCA	Ministry of Gender and Children's Affairs
MPA	Marine Protected Areas
NEPAD	New Partnership for Africa Development
NGO	Non-Governmental Organization
PGF	Planning Green Future Sierra Leone
SDGs	Sustainable Development Goals
SLAFU	Sierra Leone Artisanal Fishermen's Union
SLAAFU	Sierra Leone Artisanal Amalgamated Fishermen's Union
UIS	UNESCO Institute for Statistics
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs

UNESCO	United Nations Educational, scientific and Cultural Organisation
UNW	United Nations Women
WB	World Bank

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1.0: Introduction

1.1 Introduction

Women's roles in fisheries are diverse, ranging from gleaning and processing to trading, placing them in a unique position to influence conservation and sustainability efforts if equipped with natural resource management knowledge (Chambon et al., 2023).

Globally, the proportion of women in the labour force has increased, with women constituting approximately 20% of entrepreneurs in transition (FAO, 2025). In the fisheries sector, women comprise a significant 46% of the workforce participating in small-scale fisheries-related operations, encompassing both pre- and post-harvest activities, as evidenced in nine major fish producing countries (Mutia et al., 2020). This heightened participation is driven by the rapid decline in fish populations coupled with escalating global demand (Harper et al., 2012). However, there is a challenge in obtaining comprehensive statistics, especially in developing countries, that accurately capture the magnitude and multifaceted nature of women's contributions to men's fishing endeavours (Bosma et al., 2018). In spite of women's substantial engagement in the fish value chain, scholarly accounts of their participation remain less common compared to those of men in low- and middle-income countries (Ayilu & Nyiawung, 2022).

Related to women's labour intensities and non-identity in the fisheries sector, a report from the United Nations (UN) Department of Economic and Social Affairs titled the World's Women 2015 (United Nations, 2015), found a continuing issue with gender equality in education, revealing that two-thirds of all illiterate adults are women. The report further estimates that, more than 700 million adults aged 15 years and above are unable to read and write proficiently. Of this number, approximately 496 million are women, representing more than two-thirds of the global illiterate adult population. These statistics demonstrate that illiteracy remains a gendered challenge, disproportionately affecting women and limiting their opportunities for education, employment, and meaningful participation in socio-economic development. It identified that a significant

number of illiterate adults are over 65, having not acquired the necessary skills when they were young, and they currently lack access to adult literacy programs that could help them improve their literacy. Illiteracy is especially concentrated among older adults, and among those aged and over, 30% of women and 19% of men are illiterate. This study is in line with the Sustainable Development Goals (SDGs) which were established by the United Nations to tackle global issues including gender equality by achieving universal literacy and reducing gender disparities by 2030. However, reflecting on these findings, UN Statistician Ionica Berevoescu argued that whilst ending illiteracy among the youth (under age 24) will be achievable by 2030, meeting SDGs 4 and 5 will also require an expanded adult literacy programmes and life-long learning, (Ford, 2015).

The 2025 UN Report emphasises that adult literacy and life-long learning is insufficient, especially for older age groups, and warns that broader non-formal and literacy based programs are important to reaching the SDGs target (UN, 2025). This report therefore indicates the gaps that need to be addressed to achieve Sustainable Development Goals (SDGs) 4 and 5, which aim to tackle global issues connected to gender equality and education, by achieving universal literacy and reducing gender disparities by 2030.

Fishing communities often experience lower literacy and educational attainment than urban populations due to the broader educational disadvantages associated with rural areas (Atchoarena & Gasperini, 2003). This observation reflects a common trend of educational disadvantages faced by rural populations. Additionally, the UNESCO Global Monitoring Report (GMR) on Education highlights the ongoing issue of educational disadvantage and low literacy levels in many developing countries, affecting about 771 million people worldwide, most of whom are women lacking the essential literacy skills needed for full societal participation (Amin, 2025). For example, The World Women 2015 reported that, sub-Saharan Africa has the lowest literacy levels worldwide, particularly among women (United Nations, 2015), (Maddox, 2007). Adult illiteracy remains concentrated in developing regions, particularly South Asia and Sub-Saharan Africa, which together account for the majority of the world's illiterate adult population.

Despite the significant progress in expanding access to education, literacy challenges continue to disproportionately affect rural communities, women and other marginalised groups (UIS, 2017). These findings suggest that low literacy and large fisherfolk populations frequently overlap geographically.

Statistically, regions with high numbers of non-literate individuals are also home to many of the world's fisherfolk. Maddox also highlighted that countries in sub-Saharan Africa have significantly lower literacy levels than nations in South Asia. However, South Asia also has large populations of fisherfolk, many of whom face literacy challenges. This indicates that low literacy is not confined to sub-Saharan Africa but is also a pressing issue in South Asian coastal communities. Given that regions with high numbers of non-literate individuals often overlap with areas where fishing is a primary livelihood, addressing literacy in these contexts is important for improving the socio-economic well-being of fisherfolk.

In West Africa, women actively and intricately participate in fisheries, where they encounter various barriers due to their social positions. This region, especially in rural communities, is heavily affected by a range of obstacles for women, rooted in cultural and traditional beliefs. Women in rural areas are greatly limited by a lack of access to education caused by early marriages. Additionally, some parents hold widespread negative attitudes toward girls' schooling (Megbowon et al, 2010). Furthermore, many rural women, mostly illiterate, engage in gainful employment before marriage. Low educational levels combined with high participation in fisheries and fish processing hinder the modernization and development of the fisheries sector (Olapadi & Sesay, 2019). Investing in education, especially for girls, is thus a fundamental pillar for sustainable growth in the rural agricultural sector, including artisanal fisheries, as it empowers women with critical knowledge and skills, thereby fostering economic diversification and enhanced livelihood strategies (Ojong, 2025).

In a bid to minimize the impact of illiteracy on women, UNESCO emphasizes that the highest rates of illiteracy are predominantly observed in underdeveloped countries, and

half of all illiterate women come from Sub-Saharan Africa (UIS, 2017). For instance, in West Africa, as reported, less than 25% of women can read. What are the main reasons? Primarily, being born into an underprivileged situation implies lower chances of accessing formal education, particularly if one's family did not receive education in the first place. When parents lack education themselves, their children are less likely to be motivated to attend school. This phenomenon is referred to as the “intergenerational transmission of illiteracy,” and it constitutes one of the primary causes of illiteracy (Carlesi, 2019).

In a policy statement issued by the President of Sierra Leone (2018), it was articulated that access to education constitutes a fundamental democratic right for every citizen. The President further emphasized that education is regarded as a primary instrument for national progress. Consequently, the government of Sierra Leone inaugurated the flagship initiative on “free quality education” in 2018. This initiative aims to promote egalitarian principles by providing all citizens with essential knowledge and skills, thereby upholding the tenets of democracy (GPE Secretariat , 2024).

This research assesses the impact of illiteracy on women within fisheries communities in Sierra Leone, using Tombo and Goderich as case studies. The study advocates for measures to enhance women’s contributions and status within the fishing industry. Additionally, the research provides data that helps clarify the processes involved in advancing women’s opportunities and mitigating their marginalization in fisheries and related activities. Assessing the impact of illiteracy on women in fishing communities is of concern not only to the Ministry of Fisheries and Marine Resources in Sierra Leone but also to the Ministry of Basic Education, Gender and Children’s Affairs, as well as Non-Governmental Organizations interested in such areas of intervention.

1.2 The Socio-Economic Role of the Fisheries Sector in Sierra Leone

The fisheries sector (mainly artisanal fisheries) in Sierra Leone is considered an engine for socio-economic development due to its potential to directly or indirectly contribute to two of the SDGs: eradicating extreme poverty and hunger, and promoting gender equality and the empowerment of women.

The New Partnership for Africa Development (NEPAD) project assessment report stated that the sector has the potential to contribute to future economic recovery, confirming that the country's fisheries resources have an estimated capitalized economic value of USD 735 million, and could potentially contribute to increasing GDP to an estimated level of 10 per cent (Neiland et al., 2016). It further disclosed that Sierra Leone has a diverse and valuable array of fish stocks in both marine and inland environments, which are primarily exploited through fishing and a limited number of aquaculture systems.

The fisheries sector remains a major contributor to Sierra Leone's economy, accounting for approximately twelve percent (12%) of GDP and supporting over one million people that are partly or fully engaged in fisheries and other related activities. According to the 2024-2030 Medium-Term National Development Plan (MTNDP), the revenue generated from the sector is projected to increase steadily from NLe105 million in 2023 to NLe 163 million in 2025, with a long-term target of NLe 150 million by 2030. This growth trajectory underscores the government's emphasis on scaling up production, combating illegal fishing and improving infrastructure to enhance sustainability and competitiveness in both domestic and export markets (SL-MTNDP, 2024).

Illegal, unreported, and unregulated (IUU) fishing also poses a serious threat in Sierra Leone, draining an estimated USD 50 million annually from the national economy and undermining food security and local livelihoods (Ogunade, 2024). In addition, infrastructure challenges such as inadequate cold storage and unreliable electricity hinder efforts to preserve fish, thereby limiting incomes and increasing economic vulnerability. According to an MFMR project report, it was estimated that the current total annual fisheries production is about 150,000 tonnes, wherein the marine artisanal fishing sub-

sector, which is characterised by small-scale, inshore, low technology operations, accounts for the bulk of this catch (120,000 mt, valued (first sale only) at USD 25 million per year). Both inland fisheries and aquaculture production are relatively small in comparison (MFMR, 2008). Annual production is currently estimated at 20,000 tonnes, of which approximately 5,000 tonnes come from lakes and 15,000 tonnes from riverine and floodplains.

Another unpublished report from the Ministry of Fisheries and Marine Resources stated that men dominate the artisanal fishery (MFMR, 2020). At the same time, women predominate in the post-harvest sector, although there are some female financiers of fishing operations and boat owners. The artisanal fisheries sector consists of approximately 45,000 fishermen with over 12,000 fishing canoes, ranging from Kru canoes to Standard 1 to 10 crew members (planked boats) and over 10 crew members (Ghana planked boats), equipped with outboard engines ranging from 8 to 40 horsepower. The sector is labour-intensive, utilising traditional methods of fishing such as craft and gear, gillnets, cast nets, beach seines, purse seines, ring nets, traps, hooks and lines, as well as manual collection. Artisanal fisheries account for approximately 80% of the total marine fish landings sold within the country (landing sites and local markets). The catch of artisanal fisheries consists of small pelagic species (sardinella and ethmalosa) and some midwater pelagic species (MFMR-SL, 2019).

The contribution of this sector to food supply and nutrition is significant, with the majority of the catch being consumed domestically, either traded within the region or internationally. All fishing and related activities undertaken by this sector represent an important source of employment (FAO, 1989). Operations across the fish value chain (from the aquatic environment to the table) are gendered, with male activities more or less restricted to catching fish, and females taking charge once the fish is out of water, until it is disposed of by selling. However, women also engage in some fishing and post-harvest activities such as processing, drying, and marketing. These roles are vital for household sustenance and income, allowing women to afford education, healthcare, and

basic necessities (Thorpe et al., 2014). And these important roles of women in sustaining fisheries-based livelihoods are further supported by recent empirical research on gender roles in Sierra Leone's artisanal fisheries which reveals their indispensable contribution to the operation of the socio-ecological system (Kamara, 2021).

In coastal areas, communities are becoming increasingly dependent on the fishing industry for food and employment. Sierra Leone's civil war, from 1991 to 2002, contributed to the population rise in these communities, as people sought security, food, and sources of income. In these communities, interest in fishing has surpassed farming, partly because the civil war severely affected farming, and poor roads also discourage farmers, making it challenging to get their products to market. A 2009 report by the Sierra Leone government on the country's poverty reduction strategy noted that farming is not popular among youths due to its labour-intensive nature and relatively slow and low-income yield. Consequently, over 75% of coastal populations depend heavily on fishing: fishing is the lifeblood of Sierra Leone's coastal communities (Ogbuafor, Gray, & Stead, 2020).

However, fish stocks in Sierra Leonean waters have been declining due to the lack of effective management systems, resulting from open access to fishing grounds. This creates a situation in which there is overcapacity of the fishing fleet, overfishing, and the catching of juvenile fish. This does not only result in reduced catches, which are the primary source of revenue for women, but also in a loss of social cohesiveness, livelihood systems, and other job prospects, further exacerbating the gender gap. Fish habitats are under threat due to limited economic options for alternative livelihoods in coastal areas, population growth, and an ever-increasing demand for resources (MFMR, 2020). Like many fishing communities, women in Tombo and Goderich are actively involved in fisheries, mainly in rivers, streams, creeks, and small water bodies, using scooping nets locally known as "beimbe". Inland fisheries in these areas include rivers, lakes, floodplains, and swamps, with an estimated annual production of about 15,000 tonnes.

The coastal and inland fisheries are largely artisanal, utilizing dugout and planked canoes along the shoreline and river systems.

1.3 Gender Paradigm in the Fisheries Industry

The term ‘gender’ refers to socially determined roles and responsibilities of women and men and the relationship between them in society. Integrating gender perspectives are essential for achieving fair and sustainable development in coastal nations, making it necessary to address gender inequality across household, community, and governance (Lawless et al., 2021). Studies in gender analysis demonstrate that men and women often interact with aquatic resources in distinct ways, emphasizing the value of applying a gender lens to better understand human engagement with marine environments (Rohe et al., 2018). Sustainable biodiversity management depends on the meaningful contributions of both women and men, as they have distinct knowledge, roles, and responsibilities in the use and management of natural resources. Inclusive and gender-responsive approaches are therefore significant for effective biodiversity conservation and sustainable resource management (Picot et al, 2023). In many developing countries, decentralisation of resource management has become increasingly common. Yet, men and women in rural communities frequently utilize forest and fishery resources differently, making the gender composition of management groups crucial for effective governance (Leisher et al, 2016). To ensure the sustainable use of resources, there must be a better understanding of the relative and shifting roles of all individuals in natural resource management, including labour divisions, access to resources, decision-making processes, and traditional knowledge (Upadhyay, 2005).

Gender mainstreaming can help identify and reduce barriers to participation, thereby improving the welfare of coastal communities (Rosyada et al, 2022). Such approaches also create opportunities to integrate traditional knowledge and diverse experiences into more effective management systems.

Recent analyses highlight how women's support systems complement men's fishing efforts, shifting perspectives away from treating fisheries as a male-dominated sector (Ameyaw et al, 2020). Women's activities in fish processing, marketing, and aquaculture-related work contribute significantly to household income and food security, yet are rarely accounted for in official statistics. This lack of visibility reinforces the perception that men dominate the sector, even though women play indispensable roles in sustaining livelihoods and ensuring food security.

Other studies also revealed that, despite women's involvement in small scale fisheries, their contributions remain undervalued in policy, research, and governance (Tilley et al., 2020; Harper et al., 2012). This marginalization reflects longstanding socio-cultural norms that position men as primary actors in capture fishing, governance, and financial decision-making (Frangoudes et al., 2019). However, women are often excluded from training in aquaculture technologies, decision-making, gathering, and access to funding and markets, which limits their potential to improve livelihoods and enhance food security (Bosma et al., 2018). These inequalities are evident in unpaid workloads, concentration in low profitability of value chains, and limited decision-making authority (Rajaratnam et al, 2021).

In addition, one of the major global frameworks for gender in fisheries is Sustainable Development Goal 5, which emphasises gender equality and women's empowerment as prerequisites for sustainable development (FAO, 2015). Moreover, persistent barriers and cultural taboos continue to restrict women's roles. These limitations aggravated the effects of COVID-19 (and other shocks), which have hit women and already marginalized actors in the sector particularly hard in terms of loss of income, food and nutrition security (Harper et al., 2020; UN FAO, 2022). However, sustainable recovery requires the deliberate incorporation of a gender perspective into all stages of planning and implementation.

Developments have enhanced the understanding of how women's support systems complement and subsidise men's fishing efforts, thereby aiding in the transition away

from traditional perspectives that regard fisheries as a predominantly male-dominated sector.

Gender equality and women's empowerment remain acknowledged as global priorities, as outlined in Sustainable Development Goal 5.1. Nevertheless, persistent gender inequalities and barriers continue to exist, particularly in rural areas of low-income nations where dependence on aquatic food systems is significant. The aquatic foods sector reflects and is influenced by complex macro and micro-level social and gender inequalities and injustices (Rajaratnam et al., 2020). These disparities are evident in gendered imbalances concerning unpaid workload, the high proportion of women occupying low-return employment and less profitable nodes within the value chain, as well as unequal power dynamics and decision-making authority at various levels, resulting in an inequitable distribution of benefits from the sector (FAO, 2017). The lack of acknowledgement of women's fishing participation or the significant contribution to the livelihoods of coastal people is due, in part, to the non-remuneration of their fishing activities (Harper et al., 2020). The role women play in the fisheries sector around the world is receiving increasing international attention; yet, the contributions of women to fisheries catches continue to be undervalued by society, industry, and policymakers.

Several recent high-level fisheries reports and policy instruments have added to this momentum, emphasizing gender equality as an integral component of efforts to secure coastal livelihoods and the well-being of men and women in fishing communities around the world (FAO, 2015). However, despite growing attention to women and gender in fisheries, gender considerations continue to be under-emphasized in fisheries policies and management worldwide (Katia Frangoudes et al., 2019).

Fisheries constitute a vital economic pillar for numerous communities in developing nations, serving as a crucial source of both sustenance and economic opportunity for men and women, particularly in rural regions (Harper et al., 2012). Despite the significant involvement of women in fisheries, their contributions are often overlooked in research

and policy development due to limited understanding of gender-specific dynamics within the sector (Tilley et al., 2020). In many fisheries management systems, men are seen as the main participants, while women are frequently restricted to subordinate roles, a pattern reinforced by longstanding socio-cultural norms (Ayodele Oloko et al., 2023). Men generally dominate capture fishing, financial decision-making, and overall governance of the sector, whereas women are more commonly engaged in processing, marketing, and other tasks that are often undervalued (Ameyaw et al., 2020). Fishing communities comprise of individuals with different social positions, responsibilities, and rights, and therefore should not be viewed as homogeneous groups (Ayilu, Fabinyi, & Barclay, 2021). Within these communities, gender roles are socially constructed and shaped the division of labour, access to fisheries resources, participation in decision-making, and control over their economic benefits. Moreover, men and women often experience fisheries and livelihood opportunities differently (FAO, 2017).

The undervaluing of women's contributions in fisheries stems from the perception that fisheries are primarily male-dominated, which overlooks the substantial roles women play in ensuring coastal food security and contributing to the economy (Bantayan, 2022). This skewed perception limits women's access to training opportunities in new aquaculture technologies and often excludes them from policy- and decision-making processes (Bosma et al., 2018). Small-scale fisheries, with significant female participation, are frequently ignored in management and policy considerations, further marginalizing women's roles in development and production. The exclusion of women from decision-making hampers the development of effective strategies for poverty alleviation and food security (Harper et al., 2012). The prevailing belief that women's participation in fisheries restricts their engagement with traditional knowledge systems contributes to their exclusion from management discussions, despite their diverse roles. Cultural taboos further hinder women's participation in governing bodies, limiting their access to funding, training, and markets essential for improving their livelihoods. Moreover, when fisheries are mapped, the absence of female representation implicitly

assigns them to production roles outside the statistical framework, thereby reinforcing their marginalization.

In summary, gender dynamics in fisheries reveal not only women's significant role in fisheries but also their undervalued contributions, highlighting the urgent need for policies that integrate gender perspectives. Nevertheless, recognizing women's diverse roles in fish production, processing, community governance, and ensuring their inclusion in decision-making structures, training, and policy development is critical for equitable and sustainable fisheries development. Therefore, the fisheries sector will only achieve its full potential when both men and women are equally recognised as stakeholders in sustaining aquatic resources and livelihoods.

1.4 The Research Gap and Theories on Illiteracy and Gender Emancipation

The pervasive issue of illiteracy, particularly among women, constitutes a significant impediment to societal advancement and individual empowerment, demanding rigorous scholarly investigation and effective intervention strategies (Stromquist, 2016). While the importance of literacy as a fundamental human right is universally acknowledged, a considerable gender disparity persists, especially in developing nations, where women often experience restricted access to educational opportunities (Farooqi et al., 2023). This disparity not only hinders women's personal and professional development but also impedes broader socio-economic progress (Antai & Anam, 2016). Therefore, addressing female illiteracy is crucial for achieving gender equality and fostering inclusive sustainable communities (Reshi et al., 2022). Scholarly research on illiteracy has highlighted the intricate connections between literacy, economic factors, political systems, and religious beliefs, emphasizing that the impetus for individuals or groups to utilize literacy for meaningful purposes must align with society's commitment to providing relevant education (Ibara & Ikemi, 2021). Despite ongoing efforts to address gender empowerment, substantial gaps remain that will hinder many countries from

achieving significant progress towards Millennium Development Goal 3 (to promote gender equality and empower women) (Nurhaeni & Kurniawan, 2018).

Existing literature highlights the disproportionate impact of illiteracy on women, particularly in developing countries, where nearly two-thirds of the world's illiterate population are women (Olubunmi & Kunle, 2014). This disparity points to a critical research gap: the need for a comprehensive understanding of the complex barriers that prevent women from accessing education and literacy programmes. These barriers include deeply ingrained socio-cultural norms concerning women's roles in society, economic constraints, and limited access to information and resources (Ojong, 2025). Although numerous policies and programmes aimed at women's empowerment exist at national, state, and local levels, a significant gap remains between policy development and actual implementation within communities (Babu, 2022). An important area for investigation involves understanding how these macro-level policies are adapted or not to address the specific needs and contexts of women in diverse communities (Chuang et al., 2022).

More research is needed on the long-term effects of illiteracy on women's health, economic independence, and political engagement. The intersectionality of gender with other social categories such as race, class, and ethnicity further intensifies the challenges women face in gaining access to education and achieving literacy (Farooqi et al., 2023). Addressing these research gaps is crucial for developing effective, targeted interventions that empower women and promote gender equality (Filho et al., 2022). Moreover, even in nations with narrower gender disparities in internet access, substantial disparities persist concerning women's involvement in technology-related domains (Galperin & Arcidiacono, 2021).

Thus, the digital gender divide continues to pose a substantial obstacle to the empowerment of women, limiting their capacity to fully engage in the information society (Singh, 2017). Empirical evidence suggests that, despite improvements in physical access to digital technologies and educational opportunities, social barriers persist, impeding

women's active participation in the digital domain (Paul et al., 2018). These barriers encompass a range of factors, including cultural norms that prioritize domestic responsibilities over personal development, safety concerns that limit women's access to public ICT facilities, and psychological issues such as lack of confidence in their ability to learn ICT skills (Singh, 2017). Understanding how these factors interact is essential for creating interventions that effectively address the digital gender divide and promote women's empowerment through technology. There is a need to address the gap in the practical application of ICT skills, particularly in marginalized communities, considering that those without access to ICT, especially women and girls, are prone to becoming increasingly deprived due to factors such as affordability, education, and lack of technological literacy (Fabro Naga et al., 2021).

Several theoretical frameworks offer invaluable insights into the intricate relationship between illiteracy and gender emancipation. The human capital theory asserts that education and literacy are investments that enhance an individual's productivity and earning potential (Antonio & Tuffley, 2014). Furthermore, feminist theories highlight the role of patriarchy in sustaining gender inequality and limiting women's access to resources. Nevertheless, this theory often overlooks the systemic barriers that limit women's access to education and employment opportunities, such as discriminatory hiring practices and wage disparity, considering illiteracy as a form of dis-empowerment and subjugation (Pal & De, 2021).

Social learning theory emphasises the importance of role models and social support in promoting literacy and self-efficacy, suggesting that interventions should prioritise the creation of supportive learning environments that encourage women to develop skills and confidence (Vimalkumar et al., 2021). Moreover, empowerment theory offers a framework for understanding how individuals gain control over their lives and challenge oppressive social structures. This theory suggests that literacy can be a powerful tool for women to gain self-awareness, develop critical thinking skills, and advocate for their rights and interests. These theoretical frameworks highlight the complex interplay

between individual agency and social structures in shaping women's experiences of literacy and empowerment. Critical pedagogy, drawing from the works of Paulo Freire, emphasizes the transformative potential of education in empowering marginalized groups (Namoog & Agyekum, 2024). Freire's approach focuses on fostering critical consciousness, enabling learners to analyze and challenge oppressive social structures (Oduola & Talabi, 2014).

The New Literacy Studies perspective offers a nuanced understanding of literacy as a social practice, emphasizing how it is embedded in specific cultural and historical contexts (Perry, 2012). This perspective challenges the notion of literacy as a set of universal, transferable skills, highlighting the importance of understanding how literacy practices vary across different communities and social groups (Drewry et al., 2019). The concept of literacy as social practice emphasizes the situated nature of literacy in use (Street, 2019). This is supported by the notion that literacy's impacts are contradictory and aligned with continuities and control (Dabrowska, 2019). Norton and Pavlenko highlight the role of identity in language and literacy education, emphasizing the importance of understanding learners within their social, historical, political, and cultural contexts (Mckinny & Norton, 2008). Lave and Wenger's theory of legitimate peripheral participation provides a framework for understanding how individuals learn in communities of practice (Consalvo et al., 2015). This theory suggests that learners initially participate in activities at the periphery of the community and gradually move toward full participation as they develop their skills and knowledge. Researchers once studied literacy in terms of reading, asking who could read, how people learned to read, and what difference literacy made to socioeconomic development, assuming that literacy was key to development and individual social mobility (Griswold et al., 2005). Literacy has now been redefined as a set of 21st-century skills that involve technology; however, there is a lack of consensus on the specific knowledge and abilities required for digital proficiency (Osterman, 2013). It is imperative to analyze how social literacy relates to reading proficiency in bridging inequalities among different language

groups, especially in multilingual societies (Boakye, 2015). The influence of various perspectives on new communicative practices has led to the expansion and diversification of literacy research (Shahzadi & Surif, 2023).

These theoretical frameworks collectively underscore the multifaceted nature of illiteracy and its impact on gender emancipation, emphasizing the need for comprehensive and context-specific interventions that address both individual and systemic barriers (Christens et al., 2016).

However, despite the growing body of literature on illiteracy and gender emancipation, several research gaps remain. More research is needed to explore the effectiveness of different literacy interventions in promoting women's empowerment. Further research is needed to examine the long-term impacts of literacy programs on women's economic, social, and political well-being. More studies are needed to investigate the role of technology in promoting literacy among women, particularly in remote and underserved communities. Longitudinal studies that track women's progress over time can provide valuable insights into the sustained effects of literacy interventions. Future research should also focus on developing and evaluating innovative approaches to literacy education that are tailored to the specific needs and contexts of women. To consolidate global approaches, programs should integrate intercultural perspectives and different individual interests. In addition, research is needed to identify and address the barriers that prevent women from accessing and participating in literacy programs. Further, the importance of applying financial literacy skills across several domains to enable well-informed and responsible decision-making should be emphasized, not just the acquisition of knowledge (Farooqi et al., 2023).

Financial literacy is critical to retirement security. It has been determined that financial literacy has a greater impact on retirement planning, and the consequences of financial literacy on retirement planning are frequently underestimated (Lusardi & Mitchel, 2011). The significance of financial literacy has increased due to its importance throughout a person's life and the proven deficiencies in meeting even the most fundamental

requirements (Rehman & Mia, 2024). Financial literacy is a crucial factor in determining how well people accumulate wealth (Butcher-Koenen et al., 2016; Martin, 2007) and has the potential to improve financial well-being, which will eventually lead to the reduction of poverty. Financial literacy should be a fundamental right and a basic need, not a luxury for the select few who have access to financial knowledge or financial advice (Lusardi, 2019).

1.5 Illiteracy and Poverty of Women in the Fisheries Sector

Illiteracy and poverty create a complex web of challenges for women in the fisheries sector, further marginalizing them and limiting their opportunities. These intertwined issues exacerbate existing gender inequalities, hindering women's ability to participate fully in and benefit from fisheries-related activities. Illiteracy restricts women's access to information, technology, and financial services, while poverty hinders their ability to invest in productive assets and enhance their livelihoods (Okorie & Williams, 2009). Additionally, prevailing socio-cultural norms and power dynamics often reinforce these disadvantages, limiting women's agency and decision-making power within their households and communities (Murunga, 2021). The convergence of illiteracy and poverty not only affects women's economic well-being but also undermines their social and political empowerment.

Without sufficient literacy skills, women are often excluded from training programs on sustainable fishing practices, resource management, and financial literacy (Amiye & Ibim, 2010). This exclusion limits their ability to adopt modern technologies, increase their productivity, and access credit and other financial services (Ahmed et al., 2021). The lack of access to information also makes women more vulnerable to exploitation by intermediaries and traders, who may take advantage of their limited knowledge of market prices and regulations. Additionally, illiteracy restricts women's participation in community decision-making processes, preventing them from advocating for their

interests and contributing to sustainable fisheries management (Oyitso & Olomukoro, 2014). Illiteracy also hampers women's ability to organize and mobilize collectively. Without the skills to read and write, women find it difficult to form and manage cooperatives or join advocacy groups that could represent their interests (Harper et al., 2017). This absence of collective action further marginalizes them and reduces their influence over policies and programs that affect their livelihoods. The intersection of illiteracy and financial illiteracy creates additional challenges for women in fisheries (Azeez & Akhtar, 2021; Rink et al., 2021). As Lusardi (2020) has stated, financial illiteracy always tends to be concentrated among women, who may face difficulties in managing household finances, accessing credit, and making informed investment decisions. This lack of financial knowledge can lead to over-indebtedness, exploitation by informal lenders, and an inability to save for the future. Addressing financial illiteracy through targeted training programs and access to financial services can empower women to improve their financial well-being and build more resilient livelihoods (Namawejje et al., 2022). Low financial literacy impacts the risk of using financial products and the inclination to invest funds inappropriately, potentially trapping women in illegal investments (Dewi, 2022). Moreover, Lusardi (2008) also highlighted that education and training are essential tools for improving financial literacy and promoting women's economic empowerment in the fisheries sector. In particular, action-based experiential learning pedagogies should be integrated into financial literacy training to help participants improve their livelihoods (Mukokoma, 2018).

1.6. Statement of Problem

Women play a crucial role in the fisheries sector, particularly in areas such as processing, marketing, and household consumption management. However, high levels of illiteracy among women in fisheries impede the majority of women from fully participating in economic activities, understanding market trends, and gaining access to training, support

systems, and other essential resources. This study seeks to contribute to research done on gender in the fisheries sector by assessing illiteracy's influence on the participation of women in the fisheries sector and investigating how this can limit their economic independence, decision-making, and impact at the community level. To understand how literacy influences the potential contributions of women to fisheries, the study will explore educational programs that support the empowerment of women, leading to positive action and improved outcomes for them and their communities. It further assesses the impact of the inability to read and write on women in fishing communities and how this influences their performance in terms of economic benefit from the resource, social and cultural challenges, their behaviour in their community, and the potential to innovate in their livelihoods.

1.7 Research Objectives

The objective of this research is to assess the impact of illiteracy on women in the fishing communities of Tombo and Goderich in Sierra Leone. This is done through achieving the under-listed specific objectives:

1.7.1 Specific Objectives

1. Investigate the levels of illiteracy among women in the targeted fishing communities and how this impedes their full participation in fisheries economic and social activities.
2. Assess the role of institutional stakeholders in enhancing literacy and socio-economic awareness among women in the artisanal fisheries sector.
3. Identify the mediating effect and impact of meaningful interventions, including by NGOs, on literacy awareness raising, and women's socio-economic development in their communities.
4. Develop strategies to enhance the literacy of women in the targeted fishing communities.

1.8 Research Questions

1. How has the illiteracy rate impacted women in the artisanal fisheries sector of Sierra Leone?
2. What role do institutional stakeholders play in enhancing literacy and socio-economic awareness among women in the artisanal fisheries sector?
3. Is there any mediating effect of meaningful interventions and awareness of literacy and its relationship to women's development status?
4. What strategies should be suggested to the government or non-governmental organizations to improve the literacy rate among women in Sierra Leone's fisheries?

2.0: Research Methodology

The second chapter of this research addresses the design of the study, including the methods used to collect data, population and sample selection, and the type of research instruments employed.

2.1 Research Approach

This research employed a mixed-methods approach, integrating both structured questionnaires (quantitative) and semi-structured interviews (qualitative) methodologies to assess the impact of illiteracy on women in Sierra Leone's fisheries.

Quantitative data captured measurable variables, including literacy levels, age, income, education, and participation in fisheries, whilst qualitative data provided in-depth insights, such as personal experiences with illiteracy, gender-related challenges, and institutional perspectives on education and fisheries.

This approach was chosen because the subject matter encompasses both objective data and subjective experiences. Utilizing both methods facilitates a more comprehensive understanding of the issue and enhances the validity of the findings through triangulation (cross-validation of data types). This approach is particularly suitable for the diverse contexts of Tombo and Goderich, where social, educational, and institutional factors vary significantly.

2.2 Description of the Study Areas

This research is conducted at two major landing sites (fishing communities) in the artisanal fisheries sector of Sierra Leone, specifically Goderich and Tombo, located in the Western Area Coastal District.

Goderich Community is the second-largest artisanal fish landing site, situated in the Western Area Rural District. It is located outside the capital city of Freetown (Figure 1), with a population of 14,000 according to the 2015 population census. It is an old

settlement (village) for fisher folks, which other settlers have rapidly expanded. The community is occupied by both foreigners (the Senegalese and Ghanaians) and the local people. Three settlements, namely Goderich, Funkia, and Adonkia, combined to become the enlarged Goderich town with three fish landing sites (“Shalla water”, “Gondo water” and “River water”).

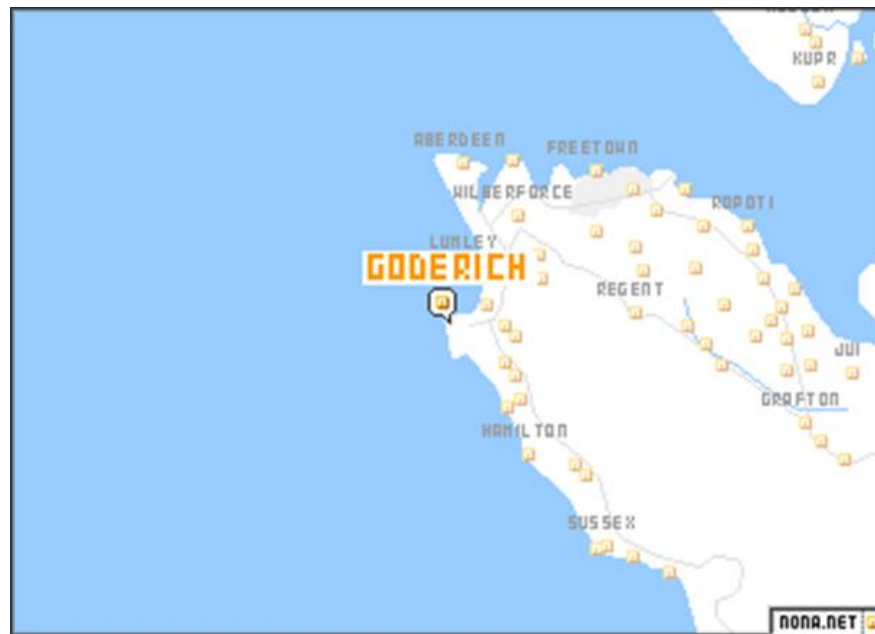


Figure 1: Map of Goderich Fishing Community (Nona.net)

Tombo Community is a very large fishing village located along the western coastline of Sierra Leone and about 53 km away from the capital at the tip of Freetown Peninsula on the Yawri Bay Estuary (Figure 2). This community is a significant hub for fisheries-related activities, such as fish trade, processing, and transportation. The population of Tombo is mostly dominated by Muslims known for expressing their Islamic faith. The population of this community exceeds 40,000 and features a Government Hospital that serves its residents and the surrounding villages. Aside from fishing-related activities, there are diverse other activities, such as petty trading, sand mining, and mangrove extraction, as well as illegal livelihood activities, such as prostitution, gambling, thieving, and sex trade. Women participate in all of these socio-economic activities.



Figure 2: Map of the Tombo Community (Webster)

2.3 Research design

The research design utilized a descriptive, comparative, and analytical framework, incorporating case studies that included the research population, sampling techniques, instrumentation, procedures, and data processing methodologies. Descriptive and comparative designs are widely used in social science research to analyse patterns and compare subgroups within a population (Creswell & Creswell, 2018; Yin , 2018). The target population for this research encompasses two principal groups; (1) Women in fisheries: female members of the Tombo and Goderich communities who catch, process, or sell fish; and (2) institutional stakeholders: officials from the Ministry of Fisheries & Marine Resources, the Ministry of Basic & Senior School Education, and the Ministry of Gender & Children's Affairs, as well as staff from NGOs like FAO, UN Women, Sierra Leone Artisanal Fishermen's Union (SLAFU), Sierra Leone Amalgamated Artisanal Fishermen's Union (SLAAFU), Embassy of Iceland (EOI) and Planning Green Future (PGF), all working on projects related to women in the fisheries. The sample size and sampling frames were determined based on the study's goals, the

size and type of the population, and the available resources and procedure (Taherdoost, 2016). A total of 20 women (10 from each town) were selected to ensure representation of diverse age groups, literacy levels and occupational categories while keeping the sample size manageable for in-depth qualitative analysis. This approach aligns with recommendations for achieving data saturation in qualitative research (Guest et al., 2020). A systematic sampling strategy was employed. Landing site records and community women groups were used to create sampling frames, and participants were selected after identifying a random start point, calculated by dividing the total number of eligible women by the desired sample size at each site.

For institutional stakeholders, purposive sampling was used because the population was small and specialized, and their roles were directly tied to gender, literacy, and fisheries policies. Key informants were selected due to their direct involvement in community initiatives addressing gender, literacy, or fisheries policy.

This two-pronged approach ensured that the study captured both grassroots views from women in the artisanal sector and policy/program-level insights from individuals working in institutions. This helped to gain a full understanding of the impacts of illiteracy on women fishers and actions taken to address the problem.

2.4 Research Instruments (Instrumentation)

The primary sources of data were interviews with women engaged in fisheries activities and questionnaires distributed to respondents from government ministries (both Foreign and national), Local Advocacy groups, and NGOs. Additionally, desktop research was used to review relevant literature, including textbooks, journals, online magazines, institutional reports, articles, press releases, and more.

2.4.1 Questionnaires

Two questionnaires were created and uploaded into Google Forms, one for government officials, local advocacy groups, and NGOs (Annex A), and the other for the women in fisheries (Annex B).

In interactions with Ministries, Departments, Agencies (MDAs), Advocacy Groups, and NGOs, professional decorum was essential, particularly when discussing potential weaknesses in program implementation or policy enforcement. Questionnaires were sent via Google Forms through official channels (Emails), and WhatsApp calls were also made with formal appointment requests to provide clear explanations of the research scope, in order to avoid any perception of undue criticism or bias.

Responses on Google Forms were received by the researcher and exported to an Excel spreadsheet for further correction or editing. These responses on the Excel sheet were also translated into pivot tables that were broken down into the codes used in the analysis (plotting of graphs and tables). All engagement with government and NGO staff followed institutional protocols, respecting chains of command and internal policies.

2.5.2 Interviews

To assess the impact of illiteracy of women in the artisanal fisheries sector, Google Form questionnaires were shared with research assistants, who helped the researcher collect data from the women fishers on site at their processing facilities (smoke ovens), landing sites (wharfs), or in their homes. Women from different age groups, marital statuses, and roles in the fish value chain (catching, processing, and selling) were included. During the interview process, specific questions were rephrased to elicit appropriate responses from the participants. During the data collection period, the research assistants provided respondents with ample time to provide accurate responses and voice recordings were also made. At the end of the field interview, responses were inputted into Google Forms

by the assistant and received by the researcher. These were exported into Excel sheets for further editing and analysis. The voice recordings were transcribed and interpreted likewise.

2.5.3 Ethical limitations and boundaries

This research strictly adheres to established ethical standards to safeguard the rights and well-being of participants. Informed consent was obtained from all participants, ensuring their comprehension of the research objectives, voluntary participation, and their right to withdraw at any point. Confidentiality and anonymity was maintained through the assignment of pseudonyms and secure data storage. The study complied with REC data protection regulations to ensure the safeguarding of personal information. Respecting women fishers' customs and traditions is essential when dealing with them, while tactfulness is required when communicating with NGOs and Ministries. In both situations, caution, patience, and the skill to handle emerging challenges are always crucial. For example, in these communities, it is customary for women to first seek permission from their husbands, elders, or leaders of the Women in Fisheries Association before engaging directly with fisheries related activities. Additionally, specific discussions, particularly those involving financial matters or household roles, are traditionally considered confidential and are expected to be approached with discretion. The research assistants respected these norms by arranging meetings in appropriate settings and avoiding questions or topics that could cause discomfort or violate community taboos.

2.6 Quantitative and Qualitative Data Analysis

Quantitative data was collected through structured questionnaires administered via Google Forms. The data was automatically exported into Google Sheets, where it was organized into frequency tables, percentages, bar charts, and other visual representations.

These analytical tools facilitated the illustration of trends across variables such as literacy levels, income brackets, and types of involvement within the fisheries sector. Data analysis was carried out manually using Google sheets and Microsoft Excel, without the use of specialized statistical software such as SPSS or Strata.

Qualitative data was collected through semi-structured interviews and open-ended questionnaire responses. Through qualitative content analysis, the data were analysed by reading and re-reading transcripts, coding responses, and identifying recurring themes and patterns. This thematic analysis was conducted manually, without the help of qualitative data analysis software such as NVivo or ATLAS.ti, ensuring active engagement in the research process.

3.0 Results

This chapter outlines the main findings from the questionnaire distributed among the two landing sites, government entities, NGOs, advocacy organizations, and expert officials.

3.1 Officials and Experts Questionnaire

3.1.1 Demographic and Related Information

Type of Institution or Organization

The distribution of officials interviewed for this study was split fairly evenly among Government Ministries, International and Local NGOs, and Community Associations (Figure 3).

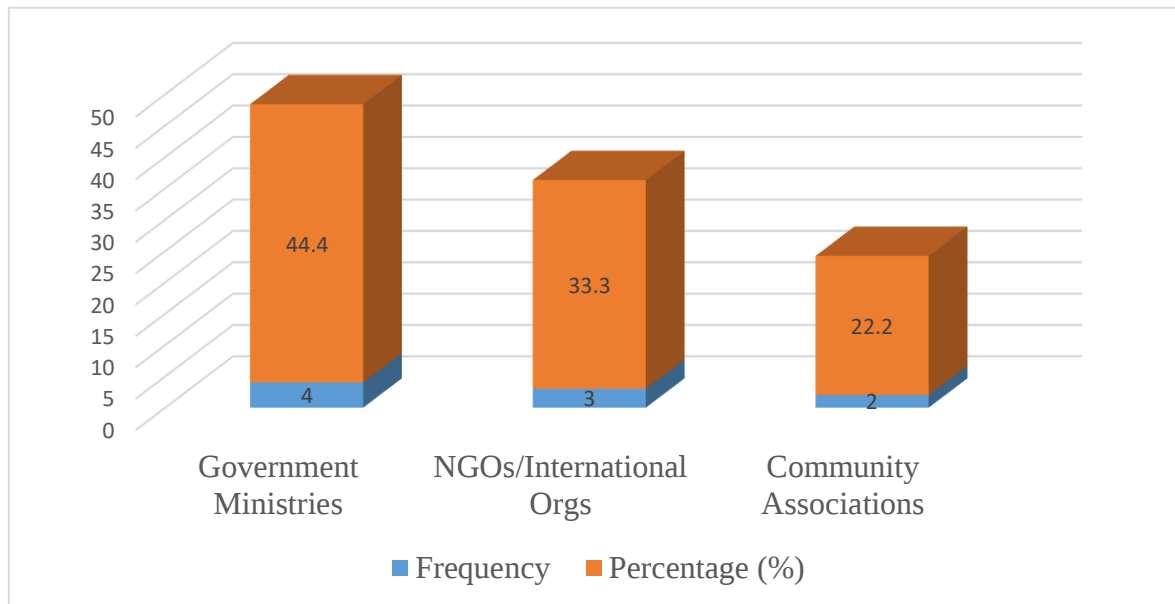


Figure 3: Distribution of Respondents by Stakeholder Institutions

Years of Experience in the Organization

The findings demonstrate that the majority of respondents have been employed for six years or longer (Table 1). Only 11.1% of respondents reported having less than one year of service within their respective institutions or organizations.

Table 1: Years of Experience in the Institutions

Institutions	Type of Institution	Length of Experience
Non-Governmental Organisation (NGOs)		
Food and Agriculture Organisation of the United Nations	NGO	6-10 years
UN Women	NGO	More than 10 years
Planning Green Features	Local NGO	6-10 years
Governments		
Embassy of Iceland in Freetown, Sierra Leone	Foreign government	Less than 1 year
Ministry of Basic and Senior Secondary Education	Government	6-10 years
Ministry of Fisheries and Marine Resources	Government	More than 10 years
Ministry of Gender and Children's Affairs	Government	More than 10 years
Local fishermen's Association		
Sierra Leone Artisanal Fishermen's Union	CBO	6-10 years
Sierra Leone Amalgamated Artisanal Fishermen's Union	CBO	More than 10 years

Stakeholder's Role on Women in the Fisheries Sector

The majority of respondents occupy technical or administrative positions in the sector (56%), followed by those in gender services (22%). Fewer respondents are involved in literacy/skills training or other specified roles (Figure 4).

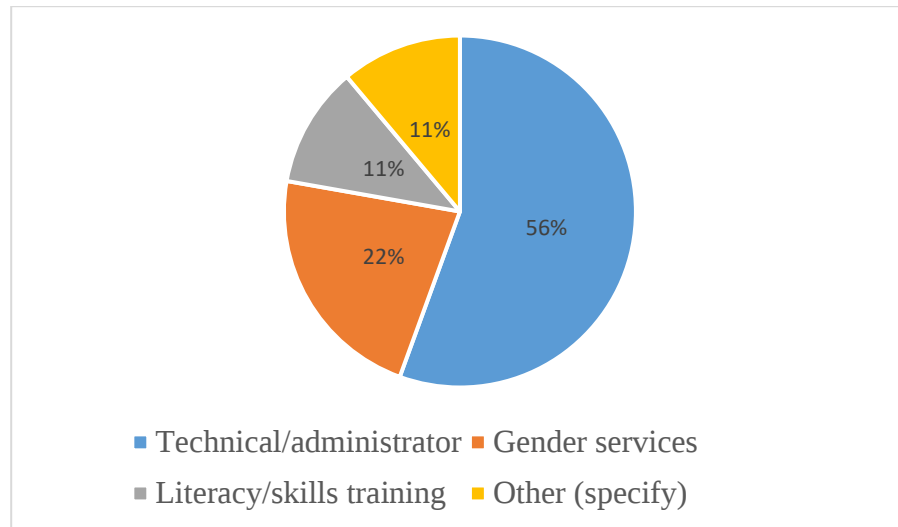


Figure 4: Institutional Stakeholders' Role on Women in Fisheries

3.1.2 Experiences in dealing with women in the fisheries sector

Challenges Faced in Dealing with Women Lacking Literacy Skills

Most of the institutional stakeholders identified different challenges linked to women's low literacy levels in the fisheries sector. The most pressing concern was no record or poor financial record-keeping reported by all 9 respondents (100%), 8 out of 9 respondents (88.9%) reported difficulties in interpreting and applying fishing regulations. In comparison, 7 respondents (77.8%) identified difficulties in applying for loans or grants. Other common challenges are, inability to negotiate fair market prices constitutes 4 respondents (44.4%) and other context specific barriers of 3 respondents (33.3%)

Significant Challenges in Tackling Illiteracy Through Training

Limited access to adult education programs and language barriers, including training materials not being available in local languages, were the primary obstacles to improving literacy through training. In addition, shortages in infrastructure and resistance due to temporal or cultural reasons were also noted. Other challenges included gaps in leadership or representation in decision-making, cultural resistance or project-based implementation

and time constraints, inadequate infrastructure such as the absence of learning centres, and other unspecified factors. One participant (SLAAFU) noted that “We run programs, but they are project based and not continuous”.

Illiteracy Impedes Women’s Participation.

The most frequently reported challenges, each accounting for 18.2% of responses were difficulties in recording-keeping and financial management, barriers to leadership and representation, and fear of investment opportunities due to illiteracy. Other challenges, each mentioned by 9.1% of respondents, included limited access to finance and policy negotiation, inability to understand contracts, exclusion from decision-making and international trade, poor communication skills limiting market access, and challenges in negotiating fair prices (Figure 5).

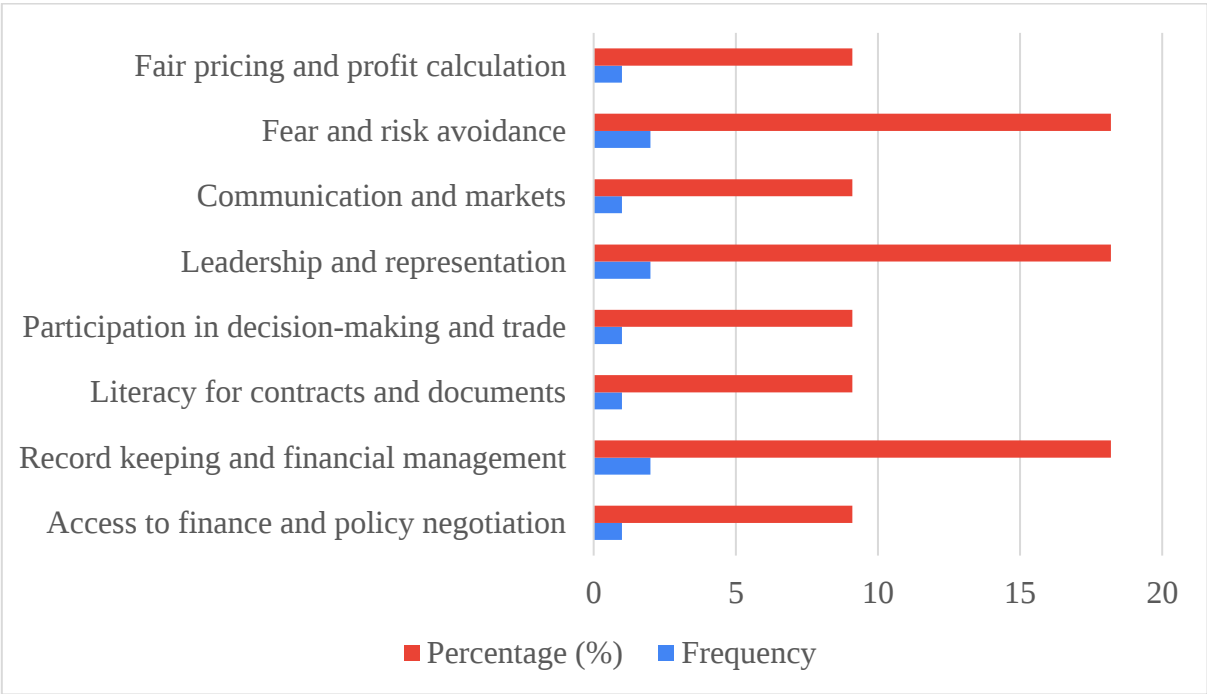


Figure 5: Barriers to Participation Caused by Illiteracy

Possible Causes of High Illiteracy Rate and Low Economic Index

Poverty is the most frequently cited cause of high illiteracy rates, followed by cultural norms and early marriage/teenage pregnancy (Figure 6). Education access constraints and operational/time factors were also issues.

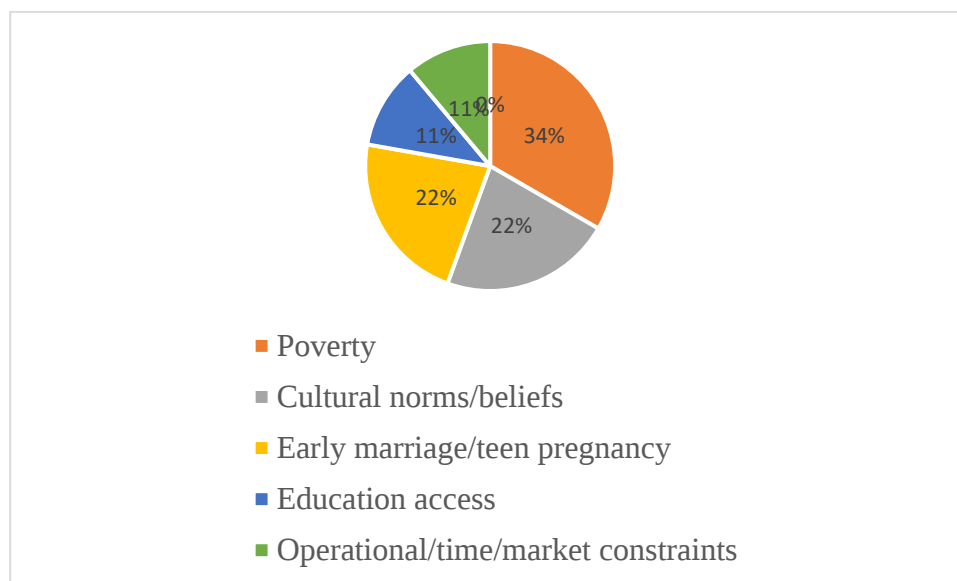


Figure 6: Causes of High Illiteracy Rate and Low Income

Access to Market Facilities and Resources

66.7% of respondents indicated that women in fisheries have free access to market facilities and resources, while 22.2% indicated that they have no access, and 11.1% were uncertain, and responded “Maybe”. These findings suggest that although access is generally available to most women, there remain some barriers and uncertainties that highlight the need for more targeted interventions.

Perception of Institutional Stakeholders that Women in Fisheries Operate Without Harassment or Fear

Responses regarding whether illiterate women in the artisanal sector operate freely without harassment or fear were evenly distributed, with 44.4% of respondents

indicating that women consistently operate freely and 44.4% asserting that they do not. 11% were unsure.

Weaknesses in Legislation Implementation

Almost all of the respondents highlighted weaknesses in legislation implementation, including deficiencies in the execution of legislative tools, enforcement challenges, and resource constraints faced by MDAs (Figure 7). Some respondents also mentioned the absence or insufficiency of sector-specific legislation.

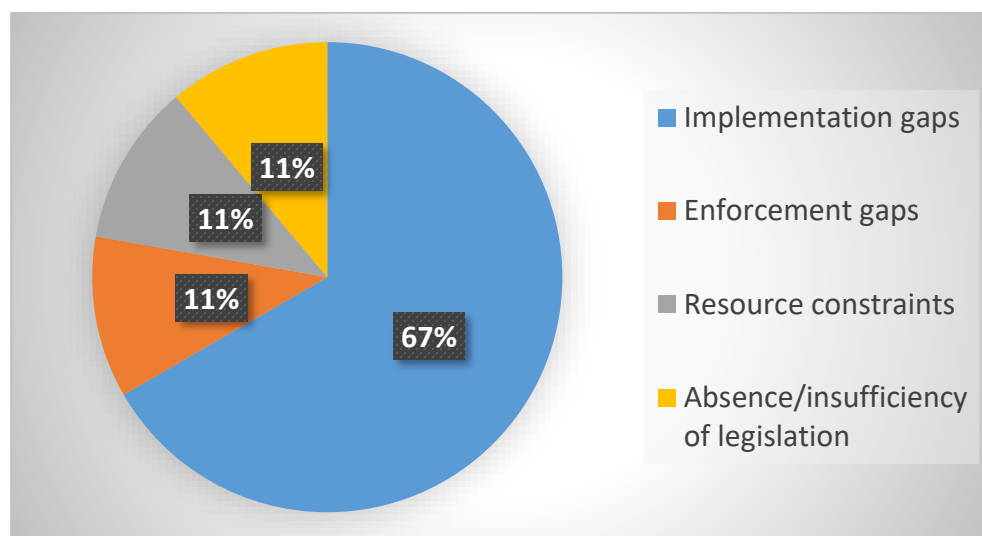


Figure 7: Weakness in Legislative Implementation

Current Programmes Implemented to Improve Women's Socio-Economic Status

The most commonly reported program was advocacy and women's rights (7), followed by literacy and numeracy skills, financial management and record keeping, business skills and entrepreneurship, each consisting of 5 responses. Less common but still notable initiatives included training on fish handling and processing, as well as educating women with less capital (Table 2).

Table 2: Implemented Programs in Improving Women's Socio-Economic Status

Program	Frequency
Advocacy and women's right	7
Literacy and numeracy skills	5
Financial management and record keeping	5
Business skills and entrepreneurship	5
Training on fish handling	1
Educating women with less capital	1

Benefits Obtained by Women in Fisheries in Programmes Implemented by the Institutional Stakeholders

The analysis of stakeholder responses shows that the most widely reported benefit of literacy programs is increased confidence and income opportunities in business transactions (60%). About 27% noted improved leadership roles in fisheries associations, while 13% of respondents identified better understanding of their legal rights and policies, and 10% noted other benefits. (Figure 8).

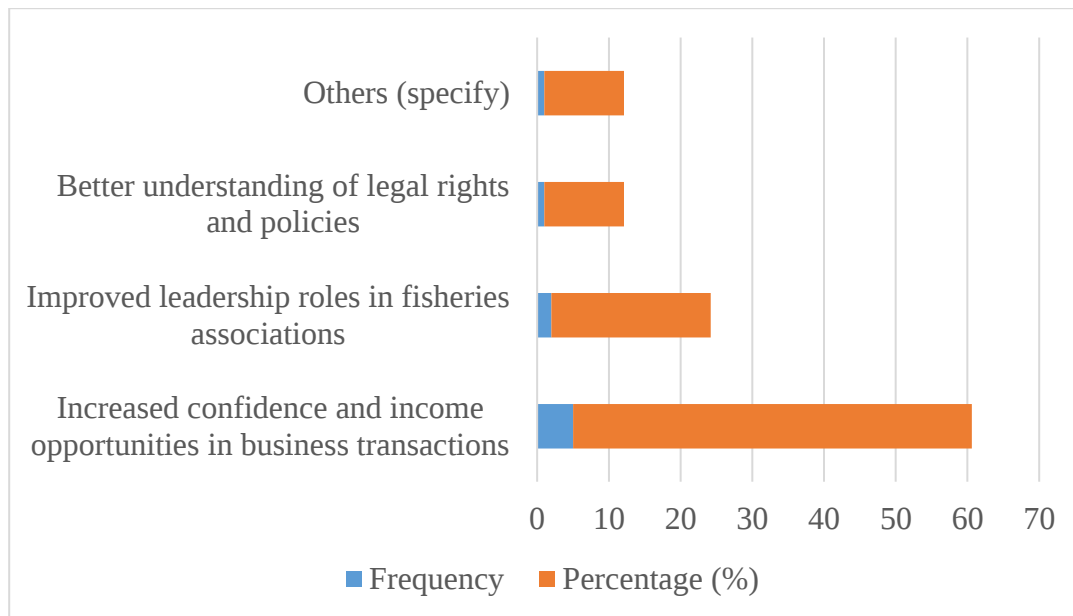


Figure 8: Benefits Obtained by Women Through the Implemented Programmes

Actions to be Taken to Uplift Illiterate Women Fisherfolk

Adult literacy and education emerged as the primary recommendation to uplift illiterate women fisherfolk, followed by training (Table 3). Infrastructure and access to finance and markets were also seen as relevant. Some institutional stakeholders emphasized the importance of more vigorous policy enforcement.

Table 3: Recommended Actions to Uplift Illiterate Women in Fisheries

Responses	Frequency	Percentage (%)
Adult literacy/education	4	44.4
Training	2	22.2
Loans/finance	1	11.1
Infrastructure/equipment	1	11.1
Market access	1	11.1

Strategies to Improve Literacy on Women in Fisheries

Responses identified from the data analysed stated that adult literacy and education were the most commonly suggested solutions to improve literacy of women in fisheries (Table 4). There was also an emphasis on infrastructure and training/capacity building and policy enforcement. Some respondents also highlighted the importance of access to finance and market-support mechanisms.

Table 4: Recommended Strategies to Improve Women's Literacy

Thematic summary	Number Responses	Percentage (%)
Adult literacy/education	8	88.9
Infrastructure	4	44.4
Policy enforcement	3	33.3
Training/Capacity building	3	33.3
Finance/loans	2	22.2
Market support/cooperatives	1	11.1

3.1.3 Suggestions of Institutional Stakeholders for the Improvement of Women in Fisheries

The stakeholders also suggested several strategies to assist women in fisheries with illiteracy challenges, which are included in Table 5. These voices demonstrate community ownership of proposed initiatives, strengthening the validity of the strategies recommended in this study.

Table 5:Suggested Strategies by Institutional Stakeholders

Name of Institutional Stakeholders	Suggested Strategies
MFMR, MBESS, MOGCA, FAO, PGF, EOI, SLAAFU	Build Adult Literacy centres, train facilitators, encourage women to attend classes, and provide teaching material with a curriculum focused on literacy.
MBESS, PGF, EOI, SLAFU, SLAAFU	Introduce compulsory adult education for all women in fisheries and provide necessary resources such as improved smoke ovens, cold rooms facilities, low interest loans, and reduced tariffs on fish trading.
FAO, EOI, PGF	Form strategic partnerships and advocate through the central government to formalise adult education for women while establishing accessible training centres.
SLAAFU, SLAAFU	Encourage attendance based on women's non-market days and offer booster purses or grants to build their capacity.
MFMR and MOGCA	Implementation and enforcement of police to empower and to protect women's rights.

3.2 Women in Fisheries in the Two Study Areas

3.2.1 Demographic and Related Information

The demographic characteristics of women in fisheries reveal significant insights into their participation in the sector. Respondents from the two fishing communities were predominantly middle-aged women actively involved in fishing. In Goderich, most respondents fell within the age range of 46 to 55 (4 respondents), followed by age 26 to 35 (3 respondents). In Tombo, the age distribution was more balanced, with 3 respondents in the 26 to 35 age group, and 2 in the 46 to 55 category. The smallest group of respondents were the youngest (18-25) and oldest (56 and above) age groups, reflecting the limited involvement of youth and older women in the sector. This decline in youth participation (18-25 years) suggests that young women are being reached only marginally in the industry (Table 6).

In relation to marital status, Tombo had a majority of married women (7 out of 10 respondents), with Goderich having a mixture of young unmarried girls, older widows and some married women.

However, the average number of children was slightly higher in Goderich as compared to Tombo (Table 6). The wider range in Goderich suggests greater variation in their household size, with some respondents supporting larger families. This demographic factor has implications for women's participation in fisheries, as household responsibilities may intersect with economic activities.

Table 6: Distribution of Age, Marital Status, and Number of Children of the Respondents

Age Distribution of Respondents					
Community	18-25	26-35	36-45	46-55	56 and above
Goderich	0	3	2	4	1

Tombo	1	3	3	2	1
Marital Status of Respondents					
Community	Divorced	Married	Single	Widow	
Goderich	1	4	3	2	
Tombo	2	7	0	1	
Number of Children by Community					
Community	Mean	Min	Max		
Goderich	3.7	1.0	9.0		
Tombo	3.3	2.0	6.0		

In the two fishing communities, most women interviewed had received only an informal education, with Tombo (6 out of 10) having a higher rate than Goderich (5 out of 10). In Goderich, the results show that more women had also attended secondary and higher education (3 out of 10) than in Tombo, where the majority of formal education was at primary level (Table 7).

The Tombo women interviewed were relatively more involved in processing and marketing/sales (8 out of 10), and thus in the multifaceted aspects of the fisheries value chain. On the contrary, the women interviewed in Goderich seemed to specialize, with the majority (7 in 10) exclusively in selling/marketing. Goderich respondents were older, on average: a majority have more than 10 years of experience in fisheries.

Table 7: Distribution of Education level, Primary Role, and Years of Experience of Respondents

Education Level of Respondents				
Community	Higher Studies	Non formal	Primary	Secondary
Goderich	1	5	3	1
Tombo	1	6	1	2
Primary Role in Fisheries				
Community	Marketing/Sales	Processing	Processing, Marketing/Sales	
Goderich	7	1	2	
Tombo	1	1	8	
Years of Experience in Fisheries by the Respondents				
Community	1-5 years	6-10 years	More than 10 years	
Goderich	0	3	7	
Tombo	1	6	3	

3.2.2 The Impact of Illiteracy on Women in Fisheries

Table 8 presents the data from the interviews with the women from Tombo and Goderich, which was analyzed using thematic analysis. The analysis revealed 7 major themes, illustrated by several codes/sub-themes, which are evidenced by quotations from the women.

Table 8: Themes, Codes, and Evidences of Women in Fisheries Responses

Themes	Codes from findings	Evidence
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Challenges in running business	Challenges in applying for loan/grants. Difficulty in financial management. Inability to negotiate fair market prices. Difficulty in understanding how to applying for a fishing license. Inability to calculate profit. Difficulty in record-keeping.	We do not understand the loan process because we cannot fill out the forms. We cannot calculate our profits. (Tombo)
Barriers to participation/ leadership and representation	Record keeping and financial literacy Fear of investment opportunities. Access to finance and policy negotiation. Literacy for contracts and documents. Participation in decision making and trade. Challenges in negotiating their prices.	Highlighted in survey responses; women cited lack of representation and difficulty in accessing finance. (Goderich)

Causes of Illiteracy or low income	Poverty, cultural norms, beliefs. Early marriages/teenage pregnancy. Educational access. Operational and market constraints.	Poverty is the most cited cause followed by cultural norms and early marriage or teenage pregnancy. (Tombo/Goderich).
Stakeholder support impact	More confidence in decisions. Increased access to market. Improved financial independence. Increase in earnings.	Because it helps improve our livelihood, fishing business, increased our confidence and help us to access to loan. Guide us in the management of our business and market access. (Tombo/Goderich)
Financial management methods	Microfinance. Micro-credit. Family and friends. Memory based. Bookkeeping. Self-managed.	Managing household. Calculation of budget is by memory. Bookkeeping is common in Goderich fishing community. Tombo depends on traditional microfinance and social support.
Benefits of literacy	Confidence, and guiding others. Hygiene/quality control.	Tombo women stated confidence and market knowledge.

	Market. Knowledge. Group meetings. Money management. Technology use.	Goderich women reported hygiene, safety, money management.
Stakeholder support impacts	More confidence in decision making. Increased access to market. Improve financial independence. Increased earnings.	Stakeholder support increased confidence, financial independence and market access. (Tombo)

Challenges Faced in Running their Fishing-Related Business Due to a Lack of Formal Education

Results from the Tombo and Goderich fishing communities show that the challenges faced in accessing financial management and business services remain similar, primarily due to low formal education. All ten Tombo interviewees reported experiencing challenges, primarily in accessing loans. Some also indicated difficulty in negotiation, fair pricing and financial management. One woman from Tombo noted: “We do not understand loan process because we cannot fill out forms” (Table 8). To overcome these challenges, the vast majority rely on microfinance organizations (MFOs), microcredit or microfinance, whereas others rely on funds from family, friends, or community organizations.

The Goderich community presented more diverse responses. Although the majority of the respondents reported difficulties, such as managing money (7) and applying for loan grants (6), several also reported other barriers, including getting licences to fish (3) and negotiating an acceptable price (2). One participant also reported not having any problems, and one was not sure. With regards to strategies for coping, Goderich women use more diverse methods of informal and semi-formal strategies to address the challenges of having little or no formal education in business management. However, one participant from Goderich also noted that many women cannot calculate their profits: “We sell but do not know what we gain” (Table 8).

Methods of Financial Management for Women’s Own Businesses

Most of the Tombo respondents primarily rely on traditional sources of income such as microfinance, microcredit, and family and/ friends. Memory-based or bookkeeping strategies are not observed.

By contrast, Goderich displays a greater variety of financial strategies. Although asserting a reliance on family and friends, some women reported managing household budgets from memory, bookkeeping, family/friends/social group and self-managed (Figure 9).

This pattern suggests that women in Goderich have employed a broader range of informal and semi-formal strategies to address the challenges of having limited or no formal education in business management.

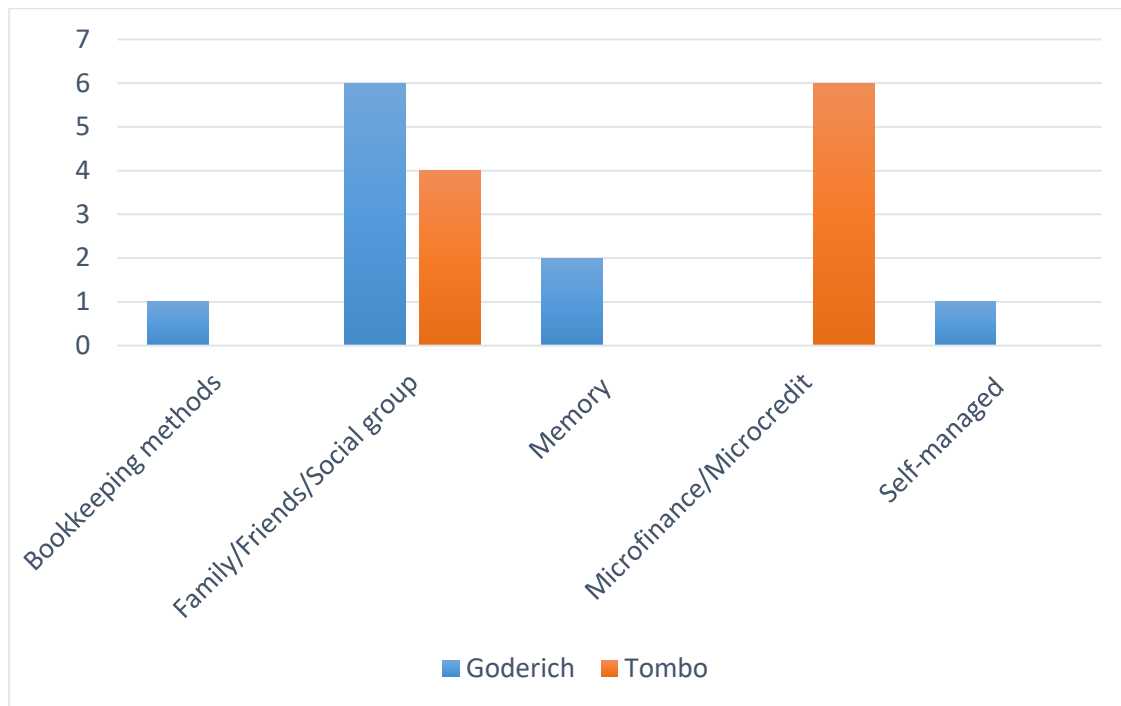


Figure 9: Financial Management Methods Applied by Women in Fisheries

Benefits of Literacy Training

After receiving literacy training, respondents from Tombo reported greater improvements in market knowledge and personal confidence than their counterparts in Goderich. Participants from the Goderich fishing community reported higher proficiency in hygiene, safety, and quality control as well as financial management. Responses on the utilisation of technology and involvement in group meetings were comparable across both communities. Notably, the capacity to mentor others was significantly higher in Goderich as compared to Tombo, suggesting a higher prevalence of peer-led knowledge transfer within that community (Table 9).

Table 9: Literacy benefits by Women in Goderich and Tombo Fishing Communities

Category	Goderich (%)	Tombo (%)
Confidence	10	90
Guiding Others	40	10
Hygiene/quality Control	80	20
Market Knowledge	40	60
Group Meetings	30	30
Money Management	60	10
Technology Use	10	10

3.2.3 Role of Institutional Stakeholders in Enhancing Socio-Economic Outcomes

Women's Participation in Capacity Building and Support Programs

The study set out to measure the extent of women's participation in capacity-building programmes at the two fishing communities. Nine out of ten respondents in Tombo, and all ten in Goderich, reported being involved in capacity building programs.

Respondents from Tombo reported more support for business skills training and fish processing programs, whilst Goderich women reported varied support types, including literacy and financial access (Figure 10). This corresponds with Goderich's slightly higher literacy gains and larger fisheries-based operational roles (Table 10).

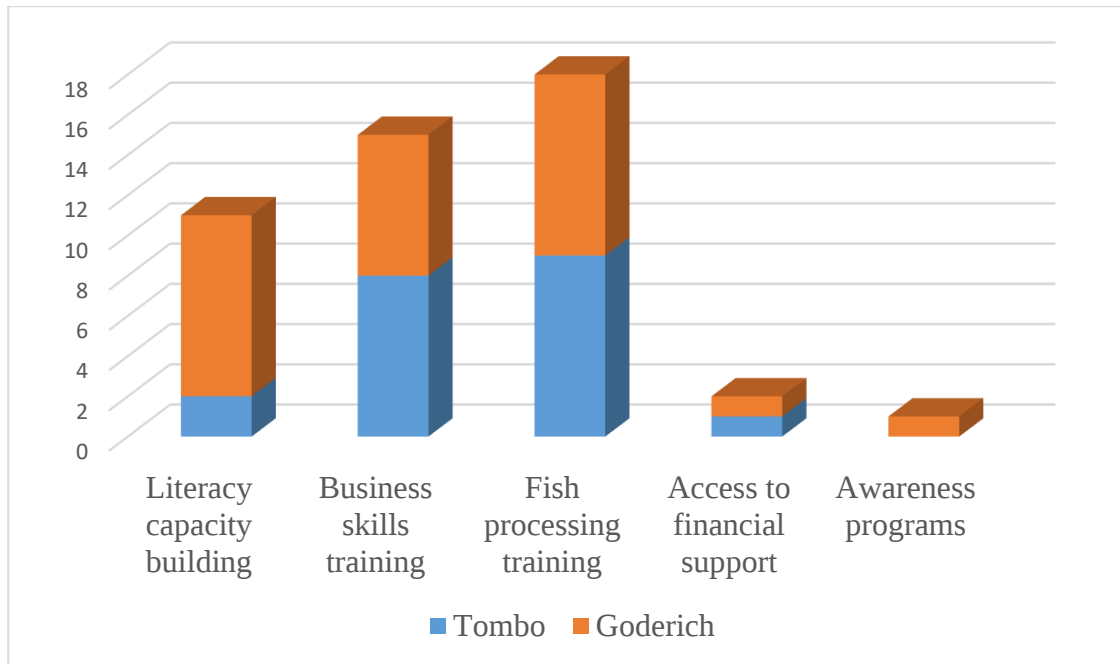


Figure 10: Support Women Received from Institutional Stakeholders

Effectiveness of Stakeholder Interventions in Supporting Women in Fisheries

Figure 11 below illustrates the differences in how respondents from each community rated the effectiveness of the interventions. Goderich respondents reported a mix of moderately and very effective interventions, whereas Tombo respondents consistently rated interventions as not effective.

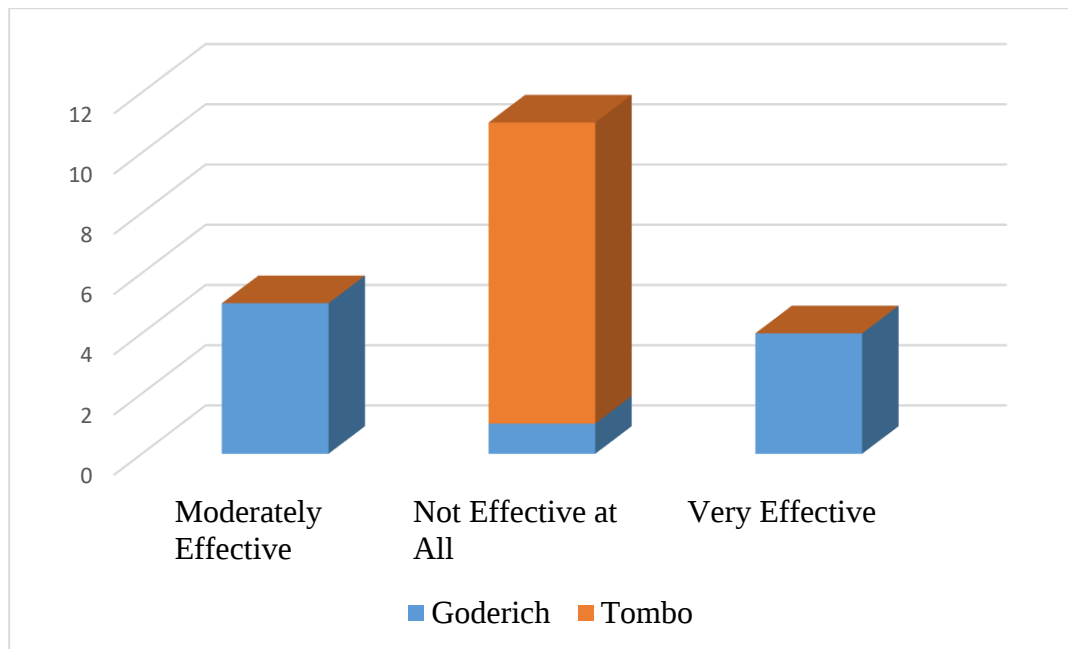


Figure 11: Perceived Effectiveness of Stakeholder Interventions by Community

Stakeholder Support and Its Impact on Women in Fisheries

Table 10 below illustrates the reported impact of stakeholder interventions on women in fisheries in the research areas. Goderich exhibits a higher frequency in most impact categories, suggesting more significant effects resulting from stakeholder support compared to Tombo.

The respondents identified some key socio-economic benefits obtained through the implementation of literacy programs, including better income opportunities, improved confidence in business negotiations, increased knowledge of legal rights and fisheries policies, and greater financial independence and leadership capacity.

Table 10: Impacts of Stakeholder Support to Women in Fisheries

Impact of support	Tombo fishing community	Goderich fishing community
More confidence in decisions	5	9
Increased access to market	3	6
Improve financial independence	3	4
Increase earnings	6	9
Others	0	1
None	4	0

Challenges Faced by Women Despite Stakeholder Interventions

The respondents identified similar challenges across the two communities, such as limited financial opportunities, restricted access to preservation and processing equipment, and inadequate infrastructure. Additionally, Goderich experiences slightly higher financial pressures. Both communities, moreover, struggle with unsustainable fishing practices and a deficiency in capacity-building support.

3.2.4 Mediating Effects of Literacy Awareness on Women in Fisheries Status Development

Impact of Literacy Awareness Programs on Economic and Social Status

The findings from the survey data highlighted that literacy awareness programs have had a significant positive effect on women in fisheries. Out of 20 respondents, 18 (90%) reported that an improved economic and social status was as a direct result of literacy training. Similarly, all respondents (20) unanimously supported literacy training for

women in fisheries, underscoring its critical role in empowerment, business, management, and community development.

Recurring themes related to women's view of literacy training in the open-ended responses included: Literacy training improves women's livelihoods and income opportunities, expansion of knowledge in business management and negotiation, positive effects on overall community development, and enhanced understanding of financial management tools and access to resources.

Additional Support Needs

Based on the qualitative responses from twenty (20) respondents from the two communities, Tombo respondents highlighted the need for grants, microfinance, and community development support, whilst Goderich mentioned infrastructural needs such as cold storage and soft loans.

4.0 Discussion

As mentioned in the literature review, international institutional frameworks such as CEDAW, the SDGs (particularly Goals 5 and 14), FAO SSF Guidelines, and UNESCO's Global Monitoring Report stress the significance of gender in fisheries. In line with these communities, the research study area findings illustrated that illiteracy continues to hinder women's socio-economic progress by restricting financial stability, leadership, and access to information, while exposing them to exploitation. Despite institutional efforts, gaps remain in training, empowerment, and infrastructure.

4.1. Impact of Illiteracy on Women in Fisheries in the Targeted Fishing Communities on their Socio-Economic Participation

The results show that women with limited literacy skills still face obstacles in engaging in economic activities beyond post-harvest. Most respondents reveal that illiteracy hinders their ability to negotiate in their fishing business, manage financial records, understand policies and rights, and access credit facilities. Similarly, a significant proportion of responses from institutional stakeholders highlighted the challenges faced when working with women involved in fisheries in these communities.

This study confirms findings by Mishra et al. (2024) who stated the absence of literacy always restricts women from obtaining the necessary financial and digital competencies that are increasingly crucial for engaging in modern economic systems and achieving financial independence. However, institutional stakeholders also noted that the improvement of financial understanding supports the ability of the targeted group (women) to engage in financial decision-making processes, leading to improved financial well-being and greater access to financial services.

Additionally, the research reveals that women who are partially educated or have participated in adult education programs have experienced improved income generation, better market access, and increased confidence in business transactions and leadership

roles. This result is directly derived from women aged 18 to 25 who are partially literate, and aged 46 to 55 who engage in adult education. This means that literacy and skills-focused programs have played a significant role in helping women achieve greater economic independence and enhance their ability to participate in market activities.

The findings of Kyeyune & Ntayi (2025) show the critical role of literacy and financial acumen in enabling women to achieve economic liberty, which enhances their household welfare and promotes gender equity in decision-making processes. From the data, it is clear that many women in the communities surveyed are unable to complete basic documentation, apply for loans, or calculate profits, which limits their access to microfinance and other support systems. This illustrates how literacy barriers perpetuate economic dependency and aligns with Carlesi's (2019) concept of the intergenerational transmission of illiteracy, where low education levels among women negatively influence future generations. The data also highlights that women generally rely on informal financial mechanisms, such as memory or verbal agreements and book-keeping, others through family and friends, and some utilise microfinance or micro-credit facilities to help sustain their businesses. These practices hinder growth and resilience in a competitive market, and studies have also shown that women entrepreneurs in developing economies frequently encounter systematic barriers, including restricted resource access and pervasive gender biases that impede their enterprises' growth. To address these constraints, researchers emphasize that targeted initiatives such as technical skills training, mentorship programs, and expanded access to credit facilities can foster business sustainability and economic development (Emon & Nipa, 2024). Similarly, stakeholders also listed some measures which should be implemented to minimize such challenges, including adult education, access to finance, and market support mechanisms.

4.2 Assess the Role of Institutional Stakeholders in Enhancing Literacy and Socio-Economic Awareness Among Women in the Fisheries Sector.

This research highlighted the role of institutional stakeholders in enhancing literacy and socio-economic awareness through women's capacity building initiatives in the artisanal fisheries sector.

The results obtained from both the institutional stakeholders and the women suggested that literacy training, vocational workshops, and advocacy campaigns by government ministries such as MFMR, MBSSE, MOGCA, NGOs like the UN Women, FAO, and PGF, community fisheries associations (SLAFU and SLAAFU), and the EOI helped improve women's confidence, awareness of their rights, market access, income and financial independence, and participation in fisheries governance. The impact of stakeholder interventions on women in fisheries in these communities was more evident in Goderich than in Tombo, but women in both communities indicated that these programmes were beneficial. This finding aligns with UN Women (2020), which emphasized that inclusive capacity development, gender responsive policies, and the meaningful participation of women is essential for sustainable fisheries management and strengthening the resilience of fisheries dependent communities. However, these interventions remain fragmented and project-based rather than systematic. In addition, some stakeholders also identified challenges in implementing programs linked to women's low literacy levels in the fisheries sector, such as no record or poor financial record-keeping, difficulties in interpreting and applying fishing regulations, and difficulties in applying for loans or grants, whilst others stated the inability to negotiate fair market prices and limitations of the targeted group in attending classes. The above-listed challenges led to some NGOs introducing literacy and financial management workshops, thus providing limited coverage in programs implementation. However, such coverage is seasonal, and often depends on donor cycles, and government agencies are largely dependent on donor funds to implement such projects. Respondents also stated that inadequate coordination between institutions and lack of infrastructure, such as cold

rooms and processing facilities (storage units, and modernised smoke ovens) are challenging issues faced by women in these coastal communities. These challenges validate Sunil Babu’s (2022) observation of a persistent gap between policy design and community level execution. While policies promoting gender equality and education exist, these stakeholders lack consistent funding and localized delivery mechanisms, thereby limiting their impact in fishing communities.

4.2.1 Analysis of Stakeholder Roles and Interventions

Table 11 provides a comprehensive mapping of stakeholder roles, and effectiveness of interventions on women in fisheries in Sierra Leone. NGOs (UN Women, PGF), donor agencies (FAO) and foreign governments (EOI) exhibit high effectiveness, demonstrating their main role in delivering training, funding, and advocacy programs. In contrast, government agencies like MFMR and MOGCA display moderate effectiveness, with strong regulatory roles but limited to direct programming for the targeted group. This could be due to delays in the disbursement of government funding. However, MBSSE shows low effectiveness, indicating a gap in adult education programs tailored for fisherwomen.

Figure 14, which is the stakeholder role and effectiveness matrix, visually demonstrates the dynamic of NGOs and donors occupying the top right quadrant (high role, high effectiveness), representing critical actors driving fisheries literacy initiatives and dominating literacy and capacity-building efforts. According to the diagram description, local fishermen associations such as SLAFU and SLAAFU are moderately effective and act as grassroots mobilizers and mediators/liaison entities between communities (women) and national stakeholders. Nonetheless, the matrix reinforces the need for stronger inter-agency coordination to bridge the gaps in infrastructure and policy enforcement.

Overall, both the table and the matrix highlight a donor-driven ecosystem with underutilised government potential, echoing FAO (2015)’s observation that sustainable fisheries development requires joint planning between local and international actors.

Table 11: Roles and Effectiveness of Stakeholders on Women in fisheries

Stakeholder	Role	Effectiveness	Gaps Identified
MFMR	Provides policy oversight and fisheries regulations, and manages/supervises fisheries activities.	Moderate	Limited direct literacy programming, poor enforcement of policies.
MBSSE	Designs and implements literacy curriculum.	Low	No tailored programs for adult women in fisheries.
MOGCA	Leads the development and monitoring of policies related to gender in line with the Gender Equality Women Empowerment (GEWE) Act 2022.	Moderate	Limited focus on literacy activities for women in fisheries.
EOI	Fund literacy programmes and economic growth.	High	Program sustainability connected to the project duration.
NGOs (UN Women, PGF)	Implement skills training and awareness campaigns.	High	Sustainability and follow-up of programs are weak.
Local Fisheries Associations (SLAFU and SLAAFU)	Mobilise women/ local participation, and offer small-scale fisheries training.	Moderate	Poor funding, limited coordination with national agencies.
Donor Agencies (FAO)	Fund literacy and economic progress.	High	Program sustainability tied to project duration.

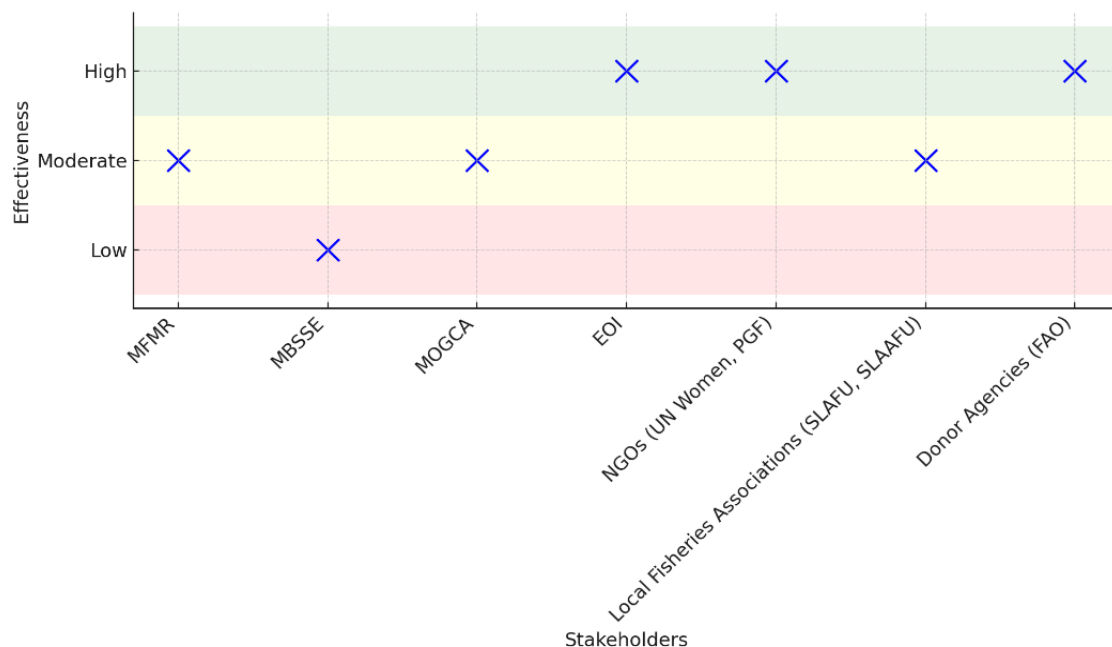


Figure 12 : The Matrix of Stakeholders on Effectiveness on Women in Fisheries

4.3 Identify the Mediating Effect and Impact of Meaningful Interventions, including by NGOs, on Literacy Awareness Raising and Women's Socio-Economic Development in their Communities.

The mediating effect and impact of meaningful interventions reveals that institutional stakeholder agencies, such as UN Women, PGF, FAO, and local fisheries associations in Sierra Leone played critical roles in providing literacy awareness programmes and skill building initiatives in Goderich and Tombo fishing communities. This study aligns with the findings of Nuotuo (2024), who highlighted the critical role stakeholder interventions played in capacity building for effective management of Ghana's small-scale fisheries. In Sierra Leone, such interventions have been instrumental in boosting business confidence,

as reported by the women respondents. They reported an increase in confidence during their business transactions after gaining knowledge in literacy programs, enhancing income opportunities, and stating that training on financial management enables them to improve financial decision making and earnings. This is in conformity with research conducted by Choudhary & Jain (2023), who reveal that financial literacy programs significantly contributed to an inclusive and participatory financial ecosystem, which benefited marginalised women by improving their finances and expenditure behaviours. Another consequence of stakeholder interventions are improved leadership roles. Capacity building was shown to facilitate women's participation in fisheries decision making processes as well as legal literacy, notably awareness on legal rights and fisheries policies. This is a confirmation of UNESCO and World Bank reports which highlighted that financial and legal literacy play an important role in promoting social inclusion, strengthening community participation, and improving access to resources and opportunities. Increased literacy enables individuals to make informed decisions, participate more effectively in governance activities, and contribute to equitable resource management, thereby fostering social cohesion and reducing the potential for conflict within communities (UNESCO, 2020; World Bank, 2018). Previous research studies in Sierra Leone reported that women face persistent barriers, unwanted sexual experiences, and limited decision-making power, and these experiences are not universally "harassment free" (Kamara, 2021). This study shows that only 44% of women are operating free from harassment.

Thus, there is still further work to do to improve this situation. This research also discovered programmes implemented by these stakeholders that benefited women in the fishing sector through training on fish handling and processing, business skills and entrepreneurship, advocacy and women's rights, literacy and numeracy skills, financial management and record-keeping, among others.

4.3.1 Develop Strategies to Enhance the Literacy of Women in the Targeted Fishing Communities.

Illiteracy remains a significant barrier to women's empowerment in Sierra Leone's artisanal fisheries sector. The findings from the study areas confirm that illiteracy restricts women's capacity to manage finances, access markets, and engage in fisheries governance. Stakeholders and women participants consistently emphasized that a multi-sectoral and culturally sensitive approach is necessary to address these challenges in alignment with CEDAW (United Nation, 1979) which advocates for equal access to education, economic participation, and empowerment opportunities for women.

This approach also supports the achievement of UN SDGs 4.6 and 5b. SDG 4.6 promotes inclusive and equitable quality education and lifelong learning opportunities for all, while 5b emphasises the use of enabling technologies and empowerment strategies to enhance women's participation and equality.

Strengthening women's literacy and capacity development within fisheries communities is therefore critical to promoting social inclusion, sustainable livelihoods, and effective community participation in fisheries governance.

4.4 Key Integrated Strategies

The following key integrated strategies were suggested by the study participants to improve women's literacy and capacity development within fisheries communities.

Establishment of community-based training centres: These should be integrated within community learning centres established in fish landing sites to ensure accessibility and offer flexible, fisheries-focused literacy and numeracy programs tailored to women's schedules.

Integrate financial and digital literacy: The use of mobile money learning tools, digital payment systems, and market literacy supported by affordable technology and solar-powered infrastructure.

Implementation of policy and partnerships: Strengthening collaboration among government ministries, NGOs, and fisheries associations to embed literacy into fisheries management initiatives.

The integration of livelihood training programmes: Combining literacy education with entrepreneurship, financial literacy, and contemporary fisheries skills to improve income levels and promote the sustainability of businesses.

Infrastructure development: Prioritising building of smoke ovens, storage units, and cold rooms to support training outcomes. As FAO (2015) and UN Women (2020) emphasise, the utilisation of localised and content-sensitive approaches is crucial for sustaining women's participation in artisanal fisheries.

Cultural sensitisation: This is one of the most important aspects of the listed strategies, especially in promoting gender equity through community engagement, male alliance, and female role models to overcome cultural resistance.

Monitoring and sustainability funding: Implementation of tracking systems for literacy outcomes and diversifying funding through public-private partnerships to ensure program longevity.

4.5 Scope and Limitations of the Study

The research field work was conducted on the 1st of July, 2025 for Tombo and the 14th of July 2025 for Goderich fishing communities. The dissertation faced certain practical limitations, mainly due to time constraints and language barriers. The short timeframe for fieldwork, especially for data gathering and analysis, required a focused and manageable research plan. Practically, this restricted the scope of data collection, and the researcher was only able to conduct a limited number of interviews. Additionally, focus group discussions were not utilised because they require more time and logistical effort. Instead, the study relied on individual semi-structured interviews, which were more feasible

within the limited timeframe and provided deeper insights into personal experiences and perceptions.

A further limitation pertained to language and communication. While the researcher and her assistants are fluent in Krio (the lingua franca of Sierra Leone), it became apparent through preliminary field engagement that some fisherwomen and fish processors communicate primarily in local dialects, with varying levels of fluency in Krio. A translator (Fisheries Enumerator) was thus used to translate for three of the women who could not speak the Krio language. This created a potential barrier to effective communication and impacted the accuracy and nuance of a minor portion of the qualitative data gathered.

Owing to these limitations, this research functioned as a preliminary or scoping study intended to guide future, more detailed research. It aimed to establish a foundation for subsequent academic investigations or policy-related studies.

By thoroughly documenting methodological decisions and contextual limitations, this dissertation will add valuable, context-specific insights and provide a replicable framework for future research in similar socio-ecological environments. As the world evolves, so does literacy, which becomes increasingly crucial for accessing rights and resources. Stakeholders at all levels in Sierra Leone are anticipated to continue recognizing the significance of research that explores the relationship between literacy and gender within specific community contexts. Ultimately, it is hoped that this research will serve as a call to action for organizations (both national and international), government agencies, and other stakeholders who have the power to implement women's capacity-building and literacy programs.

5.0 Conclusion and Recommendations

5.1 Recommendations

Based on the findings of this research, which examined women's literacy, economic participation, and leadership in Sierra Leone's artisanal fisheries sector, several strategic actions are necessary to address the identified gaps.

1. Strengthening Adult Literacy and Skills Training

Community-based literacy centres integrated with fisheries-focused curricula and financial literacy modules should be established, to address the direct link between education, economic empowerment, and women's participation in fisheries activities.

2. Enhanced Stakeholder Collaboration

The Government should focus on improving coordination/collaboration between Ministries such as MFMR, MBSSE, MOGCA, NGOs, and local fishermen's associations (SLAFU and SLAAFU) to create a unified literacy strategy with sustainable funding mechanisms beyond donor cycles.

3. Invest in Infrastructure

Government ministries should partner with donor NGOs to provide cold storage, modernise smoke ovens, and provide market facilities to complement literacy gains, boost productivity, and reduce post-harvest losses.

4. Formalise Adult Education Policy

Stakeholders should collaboratively institutionalise adult education, not only for fisheries but for all women in Sierra Leone and ensure programmes are accessible, gender sensitive, and backed by established local by-laws. This is in alignment with the policy statement issued by the President of Sierra Leone (2018) that access to education

constitutes a fundamental democratic right for every citizen, which motivated the government to inaugurate the flagship initiative of “free quality education” to provide all citizens with relevant knowledge and skills.

5. Embed Gender Advocacy and Cultural Sensitization

Promotion of community-led campaigns should be enforced to address the socio-cultural norms that limit women’s education and leadership roles, leveraging male allies and female role models.

6. Adopt Monitoring and Evaluation Systems

The introduction of a robust tracking system will accelerate the evaluation of literacy programs' outcomes and inform data-driven policies, ensuring scalability and long-term sustainability.

5.2 Conclusion

This research has demonstrated clearly that illiteracy is a key barrier to women’s economic independence, decision-making, and leadership in Sierra Leone’s artisanal fisheries sector. Findings obtained from Tombo and Goderich reveal that literacy programs improve income, access to market facilities, and confidence, yet coverage to these communities remains limited due to infrastructural gaps and fragmented stakeholder efforts.

In conclusion, a multi-sectoral, culturally-responsive approach aligned with CEDAW, SDG 4 (Quality Education), SDG 5 (Gender equality), and FAO’s SSF Guidelines is essential to close these gaps. By integrating literacy initiatives with financial training, infrastructure investment, and gender advocacy, Sierra Leone can move towards empowering women, strengthening fisheries value chains, and promoting inclusive socio-economic development.

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Appendix

Annex A

**QUESTIONNAIRE FOR WOMEN IN THE FISHERIES SECTOR IN
TOMBO AND GODERICH COMMUNITIES IN SIERRA LEONE, WEST
AFRICA**

Research on “Assessing the impact of illiteracy on Women in fisheries in Sierra Leone: A case study of Tombo and Goderich Fishing Communities in Sierra Leone”.

Instructions

My name is Kadiatu Seaport Sam Kossaba and I am a postgraduate student in the World Maritime University's Masters in Maritime Affairs Programme, specializing in Ocean Sustainability, Governance, and Management. I am undertaking a research project entitled; Assessing the Impact of Illiteracy on Women in Fisheries in Sierra Leone: A case study of Tombo and Goderich Fishing Communities in Sierra Leone.

I kindly request your input in a short survey, designed to obtain your valuable insights and observations on the above topic. This research has been reviewed and approved by the World Maritime University Research Ethics Committee. Participation is voluntary and your responses will be kept anonymous. The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will later be published online in WMU's digital repository (maritime commons) subject to final approval of the University and made available to the public. Your personal information will not be published. You may withdraw from the research anytime, and your data will be immediately deleted.

Anonymized research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded.

Your participation in the interview is highly appreciated

The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will later be published online in WMU's digital repository (maritime commons) subject to final approval of the University and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your data will be immediately deleted.

Anonymized research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded.

Your participation in the interview is highly appreciated

Section 1: Demographic Information

1. Age: 18-25 ☐ 26-35 ☐ 36-45 ☐ 46-55, ☐ 56, and above ☐
2. Marital Status: Single, ☐ Married, ☐ Divorced, ☐ Widow ☐

3. Please state the Number of Children you have
4. Years taken in the Fisheries
Less than 1 year ☐ 1-5 years ☐ 10 years ☐ More than 10 years ☐
5. Please choose your primary role in Fisheries
Fishing ☐ Processing ☐ Marketing/Sales ☐ Others (specify).....
6. What is your level of Education?
Non-formal ☐ Primary ☐ Secondary ☐ Higher Studies ☐

Section 2: Impact of Illiteracy on Women in Fisheries

7. Do you face challenges in running your fishing-related business due to a lack of formal Education ☐ Yes ☐ No
If yes, what specific challenges do you face? (select all that apply)
Difficulty in financial management ☐
Challenges in applying for loan grants ☐
Inability to negotiate fair market prices ☐
Difficulty in understanding how to apply for a fishing License ☐
Other (specify).....
8. How do you currently manage financial transactions for your business?
Rely on family/friends to help ☐
Use memory instead of written records ☐
Other (specify).....
9. In what ways has literacy or skills training helped improve your role in fisheries?
I can now keep track of the money I earn or spend ☐
I understand market prices and how to negotiate better ☐
I can read or follow instructions on labels, forms, or equipment ☐
I participate more actively in meetings or group discussions ☐
I can teach or guide others in my group or community ☐
I understand hygiene, safety, and quality control better ☐
I can use a phone or technology for my business (e.g. calling buyers, and using mobile money) ☐
I feel more confident and respected in my role or business ☐
Others (please specify):

Section 3. Role of Stakeholders in enhancing Socio-Economic awareness

10. Are you aware of or participated in any governmental or NGO programs that support women in fisheries?
Yes ☐ No ☐
11. What type of support have you received from stakeholders? (Select all that apply)
Literacy capacity building ☐
Business skills training ☐
Access to financial support (loans/grants) ☐
Awareness programs on rights and policies ☐
Fish processing training ☐
Others (specify).....
12. In regards to question 12, what additional support do you think stakeholders should provide to women in fisheries?
.....
.....
13. How would you rate the effectiveness of stakeholder interventions in supporting women in fisheries?

Very Educative ☐ Moderately effective ☐ Not effective at all ☐
14. How has any NGO support affected your livelihood? (Select all that apply.)
Increased earnings ☐
Improve financial independence ☐
Increased access to market opportunities ☐
More confidence in participating in fisheries decisions ☐
Others
(specify).....
.....
15. What challenges do you still face despite NGO interventions?
.....
.....

Section 4: Mediating Effects of Literacy Awareness on Women in Fisheries Status Development

16. Have literacy awareness programs helped improve your economic or social status?

Yes ☐ No ☐

17. If yes, in what ways? (Select all that apply.)

Better income opportunities ☐

Increase confidence in business transactions ☐

Better understanding of legal rights and policies ☐

Improved leadership roles in fisheries associations ☐

Others (specify).....

18. Do you think literacy training should be a priority for women in fisheries?

Yes ☐ No ☐

19. Why?.....

Annex B

**QUESTIONNAIRE FOR OFFICIALS OF NON-GOVERNMENTAL
ORGANIZATIONS, MINISTRIES, DEPARTMENTS & AGENCIES, AND
OTHER EXPERTS IN SIERRA LEONE, WEST AFRICA**

Research “Assessing the impact of illiteracy on Women in fisheries in Sierra Leone:
A case study of Tombo and Goderich Fishing Communities in Sierra Leone”.

Introduction

My name is Kadiatu Seaport Sam Kossaba and I am a postgraduate student in the World Maritime University's Masters in Maritime Affairs Programme, specializing in Ocean Sustainability, Governance, and Management. I am undertaking a research project entitled; Assessing the Impact of Illiteracy on Women in Fisheries in Sierra Leone: A case study of Tombo and Goderich Fishing Communities in Sierra Leone.

I kindly request your input in a short survey, designed to obtain your valuable insights and observations on the above topic. This research has been reviewed and approved by the World Maritime University Research Ethics Committee. Participation is voluntary and your responses will be kept anonymous. The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will later be published online in WMU's digital repository (maritime commons) subject to final approval of the University and made available to the public. Your personal information will not be published. You may withdraw from the research anytime, and your data will be immediately deleted.

Anonymized research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded.

Your participation in the interview is highly appreciated

A. Demographic and Related Information

1. What is the name of your Institution or Organization?

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2. How long have you worked in (this Institution/Organization)?

Less than 1 year ☐ 1-5 years ☐ 6-10 years ☐ More than 10 years ☐

3. Please choose your primary role in the sector

Technical/administrator ☐ Literacy/skills training ☐ Gender services ☐
Legal services ☐ Other (specify).....

B. Experiences in dealing with women in the fisheries sector

4. Do you face challenges dealing with women lacking literacy skills?
Yes ☐ No ☐
5. If yes, what specific challenges do you face? (select all that apply)
No record or Poor financial record-keeping ☐
Difficulty in applying for loans/grants ☐
Inability to negotiate fair market prices ☐
Difficulty in interpreting and applying fishing regulations ☐
Others
(specify).....
.....
.....
6. In tackling illiteracy of women in the sector via training, what are the major challenges? (select all that apply)
Lack of access to adult education programs ☐

Language barriers (e.g., training materials not in local languages) ☐

Cultural resistance or time constraints ☐

Poor infrastructure (e.g., no learning centres) ☐

Low attendance in training programs ☐

Leadership or representation in decision-making ☐
7. Have literacy programs helped women by improving their socio-economic status?
Yes ☐ No ☐
8. If yes, which of the following program/s have you implemented to improve the socio-economic status of the women? (Select all that apply)

Literacy and numeracy skills ☐
Financial management and record-keeping ☐
Business skills and entrepreneurship ☐
Advocacy and women's rights ☐
Others
(specify).....
.....
.....

9. In what way have they benefitted from these programs?

Better reading and writing skills ☐

Increased confidence and income opportunities in business transactions ☐

Better understanding of legal rights and policies ☐

Improved leadership roles in fisheries associations ☐

Others

(specify).....

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10. What, in your view, needs to be done to uplift illiterate women fisher folks in “Tombo” and “Goderich” fishing communities?

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11. How have high levels of illiteracy among women in fisheries impeded their full participation in economic activities?

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12. Concerning the fishing industry, especially in “Tombo” and “Goderich” communities in Sierra Leone, what are the possible causes of the high illiteracy

rate and low economic index for women?

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13. Do women in the fishing sector have free access to markets and other resources to support their businesses? ☐ Yes ☐ No

If Yes, Please

expand.....
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14. Are illiterate women in the fishing industry able to freely operate on an equal basis or without harassment or fear? Yes ☐ ☐ ☐
Don't know

If not, please expand

15. Which Legislative instruments are Ministerial Departments and Agencies (MDAs) and NGOs using to protect and uplift women in the fishing industry?.....

16. Do you feel that, there are weaknesses in the legislation or its implementation when it comes to addressing issues affecting women in the fishing industry?

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17. What strategies could be adopted by the government and NGOs to improve the literacy rate of women in fisheries in Sierra Leone?

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