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Livelihood Challenges of Small-Scale Fisherfolk in Coastal Communities in Tanjay City From 2020-2025

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ABSTRACT

This study examines the socio-economic background, livelihood practices, and challenges of fisherfolk, using data from 993 respondents. Researchers used structured questionnaires to gather information about gender, age, education, household size, fishing methods, income, market access, and other jobs. Results were summarized using frequency counts and percentages to present a clear view of the sector. The results show that most fisherfolk are men (95.26%), indicating a strong gender imbalance and the persistence of traditional roles in coastal communities. Most respondents are aged 26–35, the main working age, with fewer older participants. Education levels are low, with 58.81% having only completed elementary school, limiting their job options and their ability to use new fishing technologies. Most fisherfolk households have 6–10 members, placing greater financial pressure on those who earn money. They mainly use traditional net-based fishing methods, such as gillnets, beach seines, and purse seines, which are well-suited to small-scale fishing. Most earn low to moderate incomes, with 48.94% making ₱6,000–₱10,000 per month, showing economic challenges and unstable earnings. Most fisherfolk can reach markets in about 30 minutes, but some face transport problems that can lower their income and affect product quality. To deal with unstable earnings, many take on other jobs, such as poultry raising, banca repair, and piggery, though few are involved in other marine-based work. The study finds that fisherfolk continue to face social and economic challenges, even though they try to adapt by finding other sources of income. It suggests focused programs to help them earn more, build skills, and gain better market support, thereby improving their stability and well-being.

Keywords: *fisherfolk, socio-economic profile, livelihood diversification, small-scale fisheries, income distribution*

INTRODUCTION

Tanjay City in Negros Oriental has historically relied on the Tañon Strait, a significant marine area supporting numerous small-scale fisherfolk. Between 2020 and 2025, these communities encountered additional challenges resulting from economic shifts, climate impacts, and the global pandemic. This research examines the socio-economic backgrounds and livelihood challenges of 993 fisherfolk in Tanjay City, providing an in-depth analysis of their coping mechanisms and the economic risks they encounter.

Objective

This study examines the challenges faced by small-scale fisherfolk in Tanjay City's coastal communities from 2020 to 2025. It analyzes their socio-economic backgrounds, fishing methods, income levels, market access, and alternative sources of income. The objective is to identify factors contributing to economic vulnerability and

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to examine coping strategies, such as engagement in diverse livelihood activities. The study further aims to inform the development of targeted programs and support mechanisms to improve living conditions and promote sustainable livelihoods.

Research Gap

The study addresses a population gap since most existing studies on fisherfolk are general in scope and do not focus on specific locations such as Tanjay City, particularly during recent crises, including COVID-19, climate change, and economic transitions. This study addresses this gap by providing localized data and linking socio-economic factors with livelihood challenges and coping strategies.

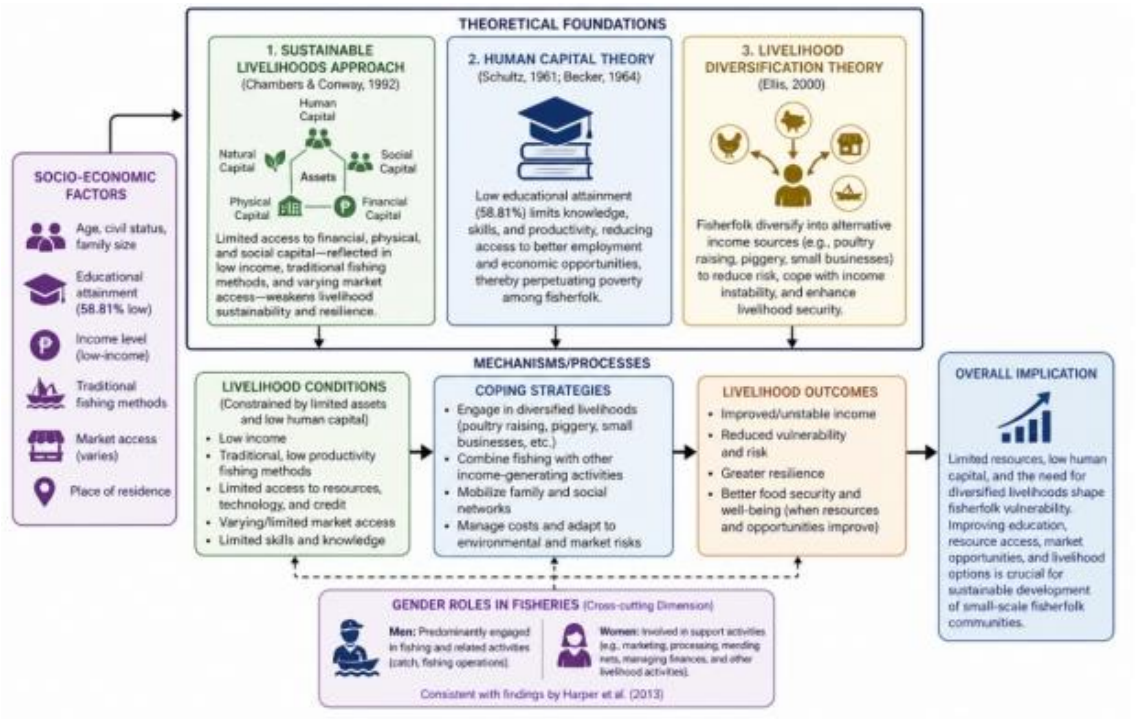
METHODS

This study employed a descriptive-quantitative approach to examine the challenges faced by small-scale fisherfolk in the coastal barangays of Tanjay City from 2020 to 2025. Of the 1,112 registered fisherfolk (BFAR Region 7, 2020), 993 (89.29%) participated, providing a robust community sample. Data were collected through structured surveys addressing socio-economic backgrounds, fishing methods, income, market access, and alternative employment. Surveys were administered via face-to-face interviews in the local language to ensure clarity and accuracy. Results were analyzed using frequencies and percentages, with findings presented in tabular form to identify trends. The study adhered to ethical guidelines, including obtaining permission from local officials, securing informed consent from participants, and maintaining confidentiality.

Ethical Consideration and AI use

AI tools were utilized only for language editing and grammar improvement and did not influence data collection, analysis and interpretation of results.

Theoretical Framework



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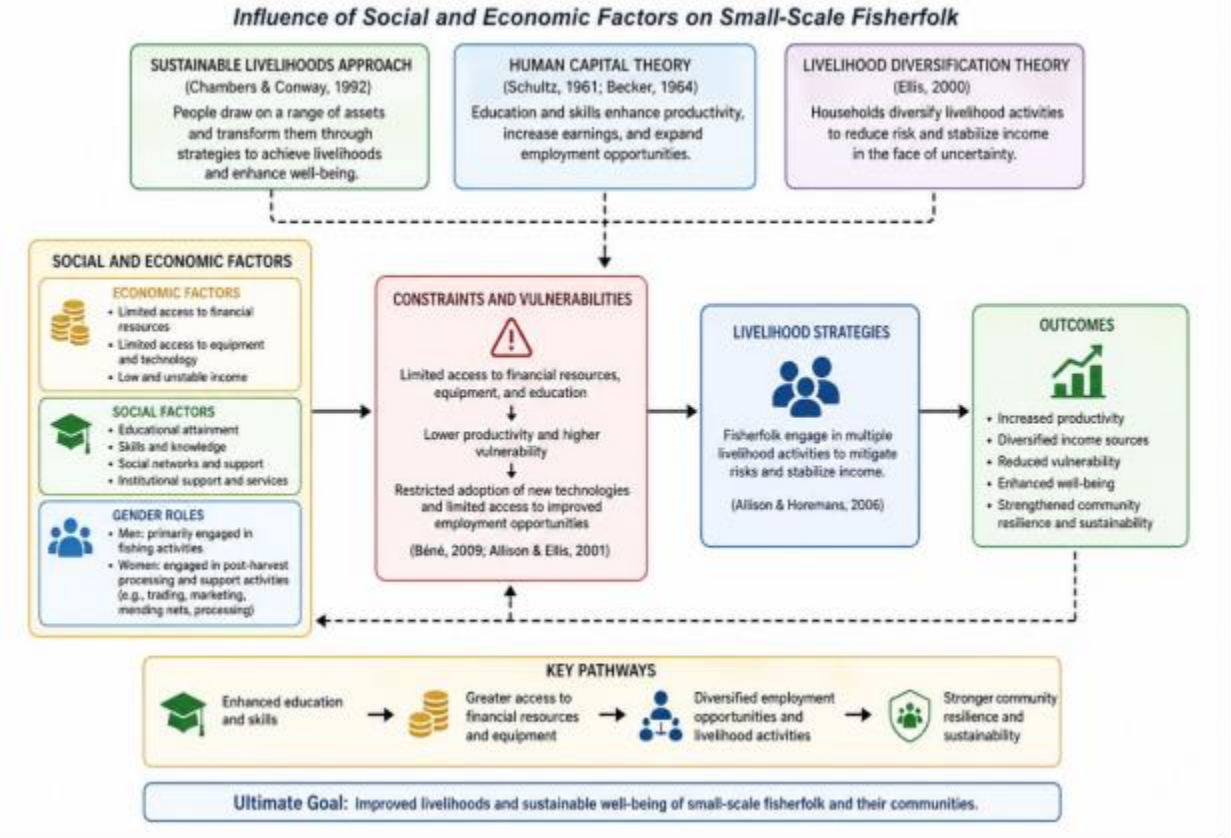
This study is anchored on the Sustainable Livelihoods Approach (Chambers & Conway, 1992), Human Capital Theory (Schultz, 1961; Becker, 1964), and Livelihood Diversification Theory (Ellis, 2000), which explain how socio-economic factors shape the livelihood conditions and coping strategies of small-scale fisherfolk.

The Sustainable Livelihoods Approach highlights how limited access to financial, physical, and social capital—seen in low-income, traditional fishing methods, and varying market access—affects livelihood sustainability and resilience. Human Capital Theory emphasizes that low educational attainment (58.81%) restricts skills, productivity, and access to better opportunities, reinforcing poverty. Meanwhile, Livelihood Diversification Theory explains why fisherfolk engage in alternative income sources such as poultry raising, piggery, and small businesses to manage risk and income instability.

The study also reflects gender roles in fisheries, where men dominate fishing while women engage in support activities, consistent with findings by Harper et al. (2013).

Overall, these theories show that limited resources, low human capital, and the need for diversified livelihoods shape fisherfolk vulnerability, highlighting the importance of improving education, resource access, and livelihood opportunities for sustainable development.

Conceptual Framework



This study applies the Sustainable Livelihoods Approach (Chambers & Conway, 1992), Human Capital Theory (Schultz, 1961; Becker, 1964), and Livelihood Diversification Theory (Ellis, 2000) to explain the influence of social and economic factors on small-scale fisherfolk. Limited access to financial resources, equipment, and education constrains productivity and increases vulnerability, particularly among those with lower educational attainment, thereby restricting the adoption of new technologies and access to improved employment opportunities (Béné, 2009; Allison & Ellis, 2001).

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To mitigate these risks, fisherfolk engage in multiple livelihood activities to stabilize income (Allison & Horemans, 2006). Gender roles are also significant: men primarily engage in fishing, while women participate in post-harvest and support activities (Harper et al., 2013). The framework underscores that enhanced education, greater access to resources, and diversified employment opportunities can strengthen community resilience and sustainability.

Table 1. *Gender Distribution of Fisherfolk Respondents (n = 993)*

Male	946	95.26%
Female	47	4.74%
Total	993	100%

The table shows that most fisherfolk are men (95.26%), while only 4.74% are women. This means fishing is mainly done by men in the community. Women are more involved in support roles, such as fish processing, selling, and household management. These results show a clear gender gap and the ongoing influence of traditional roles in coastal areas.

Table 2: *Age Distribution of Fisherfolk Respondents (n = 993)*

16–20	27	2.72%
21–25	128	12.89%
26–30	162	16.32%
31–35	162	16.32%
36–40	137	13.80%
41–45	123	12.39%
46–50	104	10.47%
51–55	63	6.34%
56–60	57	5.74%
61–65	30	3.02%
Total	993	100%

The table shows that most fisherfolk are between 26 and 35 years old, representing the primary working age. Participation in fishing declines with age, possibly due to reduced physical capability or a shift to other occupations.

Table 3: *Educational Attainment of Fisherfolk Respondents (n = 993)*

College	27	2.72%
High School	382	38.47%
Elementary	584	58.81%
Total	993	100%

The table shows that 58.81% of fisherfolk finished only elementary school, 38.47% finished high school, and just 2.72% went to college. This low level of education can make it harder for them to get better jobs, learn new fishing methods, or join training programs. The small number of college graduates suggests that fishing is the main job for those with less education.

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Table 4: *Household Size of Fisherfolk Respondents (n = 993)*

1–5 members	398	40.08%
6–10 members	410	41.29%
11–15 members	132	13.29%
16–20 members	53	5.34%
Total	993	100%

The table shows that most fisherfolk households have 6–10 members (41.29%), while 40.08% have 1–5 members. This means many live in fairly large families, which can put more financial pressure on the main earner. Fewer households have 11–15 (13.29%) or 16–20 members (5.34%), so very large families are less common but still exist. Bigger households can lead to more financial stress, especially since fishing income is often unstable.

Table 5: *Fishing Methods Used by Fisherfolk Respondents (n = 993)*

Lambat / Gillnet	184	18.53%
Pukot / Beach Seine	140	14.10%
Pamo / Purse Seine	125	12.59%
Sapyaw / Scoop Net	106	10.68%
Cast Net / Laya	94	9.47%
Pana / Spear Fishing	78	7.85%
Salok / Hand Picking (Low Tide)	47	4.73%
Fish Shelter / Payao	49	4.94%
Baklad / Fish Corral	72	7.25%
Bubo / Fish Pot	98	9.87%
Total	993	100%

The table shows that Lambat (Gillnet) is the most used fishing method (18.53%), followed by Pukot (Beach Seine) at 14.10% and Pamo (Purse Seine) at 12.59%. This means fisherfolk prefer net-based methods because they catch more fish and are suitable for coastal fishing.

Methods such as Sapyaw (Scoop Net), Cast Net (Laya), and Bubo (Fish Pot) are sometimes used, showing they are still helpful for catching certain fish or in special situations. In contrast, Pana (Spear Fishing), Baklad (Fish Corral), and Fish Shelter (Payao) are less common, possibly because they require more effort, cost more, or need special locations and skills.

Salok (Hand Picking during Low Tide) is the least used method (4.73%), likely because it depends on the tides and typically yields smaller catches. Overall, fisherfolk use different methods, but they mostly stick to traditional techniques that work well for small-scale fishing.

Table 6: *Monthly Income of Fisherfolk Respondents (n = 993)*

₱1,000 – ₱5,000	110	11.08%
₱6,000 – ₱10,000	746	75.13%
₱11,000 – ₱15,000	85	8.56%
₱16,000 – ₱20,000	52	5.24%
Total	993	100%

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The table shows that 75.13% of fisherfolk earn between ₱6,000 and ₱10,000 per month, placing most in the low-income group. Another 11.08% earn just ₱1,000 to ₱5,000, which is very low. Only 8.56% make ₱11,000 to ₱15,000, and 5.24% earn ₱16,000 to ₱20,000.

These results show that most fisherfolk earn low incomes, indicating many face financial challenges and struggle to meet their families' needs. The high number of people earning less than ₱10,000 a month highlights the need for better livelihood options, more ways to earn, and financial support programs to help improve their economic situation.

Table 7: *Access Time to City Public Market of Fisherfolk Respondents (n = 993)*

1 – 15 minutes	356	35.85%
16 – 30 minutes	310	31.22%
31 – 45 minutes	272	27.39%
46 minutes – 1 hour	55	5.54%
Total	993	100%

The table shows that 35.85% of fisherfolk can get to the city market in 1 to 15 minutes. Another 31.22% take 16 to 30 minutes, and 27.39% need 31 to 45 minutes. This means most have good access to the market, which helps them sell fish quickly and keep it fresh.

A small group (5.54%) takes 46 minutes to an hour to travel, which means some fisherfolk have long trips and may face transport issues. This can lower fish quality, reduce income, and affect market performance. While most have good access, differences in travel time can impact their earnings.

Table 8: *Alternative Livelihood Activities of Fisherfolk Respondents (n = 1,130*)*

Seaweed Farming / Guso	42	3.72%
Fish Drying / Smoking (Daing)	25	2.21%
Oyster / Mussel Culture	47	4.16%
Mangrove Crab Culture	54	4.78%
Piggery	196	17.35%
Poultry	287	25.40%
Banca Repair	205	18.14%
Net Making	72	6.37%
Boat Eco-Tour Guide	96	8.50%
Sari-Sari Store	106	9.38%
Total	1,130	100%

*Multiple responses allowed (respondents may have more than one livelihood activity).

The table shows that the most common side job for fisherfolk is poultry raising (25.40%), followed by banca repair (18.14%) and piggery (17.35%). This means many earn extra money by raising animals or fixing boats, especially when fishing is slow.

Some fisherfolk also run sari-sari stores (9.38%), work as boat eco-tour guides (8.50%), or make nets (6.37%). This shows that many have started small businesses or joined the tourism industry. Fewer are involved in resource-based jobs like mangrove crab culture (4.78%), oyster or mussel culture (4.16%), seaweed farming (3.72%), or fish drying and smoking (2.21%). This may be due to financial, skill, or suitable environmental constraints for aquaculture.

Overall, the results show that fisherfolk rely more on raising animals and service jobs than on other marine-based work. This suggests they are finding ways to handle the ups and downs of fishing income.

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RESULTS

The findings show that most fisherfolk are men (95.26%), confirming that fishing remains a male-dominated occupation shaped by traditional roles. Women mostly participate in post-harvest and household activities rather than in direct fishing. Most respondents are aged 26–35, showing that fishing is mainly done by people in their prime working years. Fewer older people fish, likely because the work is physically demanding, and some switch to less physically demanding jobs. Education levels are generally low: 58.81% have only elementary schooling, and just 2.72% reach college. This limits their chances of obtaining formal jobs and makes it harder to learn new fishing methods or to join training programs. Most fisherfolk families have 6–10 members, which puts greater financial pressure on those who earn money. Because fishing income is unstable, bigger households may face more financial stress. Most fisherfolk use net-based methods like gillnets, beach seines, and purse seines, which are efficient for small-scale coastal fishing. However, relying solely on traditional methods may limit how much they catch and the sustainability of their work, unless they adopt better techniques. Income data show that 75.13% of fisherfolk earn just ₱6,000–₱10,000 per month, so most are low-income. In large families, many face serious financial challenges. Most fisherfolk can reach the public market in 30 minutes or less, which helps them sell their catch quickly. But those who travel longer may lose income because of spoilage and higher transport costs. To deal with unstable income, many fisherfolk take on other jobs, such as poultry raising, banca repair, and piggery. This shows they are adapting to keep earning, but few join marine-based jobs, such as aquaculture, because of resource and skill constraints. Overall, the results show that fisherfolk have extensive experience and can adapt, but they still face ongoing problems such as low income, limited education, heavy family responsibilities, and few opportunities for other jobs.

CONCLUSION

The study finds that most fisherfolk are men of working age with low levels of formal education, which affects their job options. Most work in small-scale, traditional fishing and earn low, unstable incomes that often are not enough for their large families.

Despite these challenges, fisherfolk show resilience by taking on other jobs, such as raising livestock and performing service work. However, few join higher-value or marine-based businesses, likely because they lack money, skills, or resources.

Health issues, financial struggles, and relying on old fishing methods also affect their well-being. While most have good market access, some differences still impact how much they can earn.

In summary, fisherfolk remain economically vulnerable but resourceful, highlighting that they are still financially at risk but show resourcefulness.

Recommendations

Based on the findings, the following recommendations are proposed:

Livelihood Enhancement Programs. Provide financial assistance, subsidies, and training to improve fishing productivity and support alternative income sources such as aquaculture and small enterprises.

Education and Skills Development. Offer training in modern fishing techniques, financial literacy, and entrepreneurship to improve income opportunities and adaptability.

Gender-Inclusive Programs. Encourage women's participation in fisheries through capacity-building programs and support for fish processing, marketing, and aquaculture.

Income Diversification Support. Promote sustainable alternative livelihoods such as seaweed farming, crab culture, and eco-tourism by providing technical and financial support.

Market Access Improvement. Enhance transportation and infrastructure to reduce travel time and improve the quality and profitability of fish products.

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Social Protection and Financial Assistance. Strengthen access to microfinance, insurance, and government support programs to reduce economic vulnerability.

Family and Community Support Programs. Implement programs addressing household needs, including family planning, community development, and cooperative formation.

Overall, combined efforts in livelihoods, education, gender inclusion, and social protection are needed to improve fisherfolk's lives and sustain the fisheries sector.

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