



Training Needs and Readiness Assessment of Fisherfolk Associations for Cooperative Development: Basis for an Extension Program in Sagay City, Philippines

John Rick B. Ogan¹, Vergel S. Manipol², Jasmine Grace D. Camayra³, Lourdy Lyne S. Togonon⁴

^{1,2,3,4} State University of Northern Negros, Philippines

Abstract

Cooperative development is increasingly recognized as a strategy for improving the socio-economic conditions of fisherfolk communities and promoting sustainable development. This study assessed the socio-economic needs and cooperative competency requirements of fisherfolk associations in Sagay City, Negros Occidental, Philippines as a basis for developing a Cooperative Management Extension Program. Specifically, it examined the respondents' demographic profile, community-social needs, cooperative education and management training requirements, and significant differences across demographic characteristics. Using a quantitative descriptive-comparative design, data were collected from 488 fisherfolk association members through a validated survey questionnaire. Descriptive statistics, t-tests, and one-way analysis of variance (ANOVA) were employed in the analysis of data. The findings revealed that respondents were generally characterized by economic vulnerability, modest educational attainment, and dependence on fisheries-based livelihoods. Community-social needs were assessed as minimally needed overall, although governance, financial literacy, business literacy, and customer service emerged as priority areas for capacity development. Cooperative education and management competencies were rated as highly needed, particularly in cooperative principles, governance, financial management, organizational operations, entrepreneurship, and sustainability. No significant differences were found in either community-social needs or cooperative competency requirements when respondents were grouped according to demographic variables. The study concludes that fisherfolk associations possess the foundational conditions necessary for cooperative engagement but require substantial capacity-building interventions to strengthen cooperative readiness. Enhancing governance, financial literacy, entrepreneurship, and organizational management competencies may contribute to improved livelihood opportunities, organizational sustainability, community resilience, and sustainable community development.

Keywords: cooperative readiness, fisherfolk associations, cooperative development, sustainable development, community development, fisheries, Philippines

Introduction

Small-scale fisheries constitute an important component of rural economies and food systems worldwide, particularly in developing countries where coastal communities depend heavily on marine resources for employment and income. In the Philippines, fisheries provide livelihood opportunities for thousands of households and contribute significantly to local food security and economic activity. Despite their contributions, fisherfolk remain among the most economically vulnerable sectors of society. Many fishing households continue to experience low and unstable incomes, limited access to financial resources, restricted market opportunities, and exposure to environmental and economic uncertainties that threaten livelihood sustainability (Allison & Ellis, 2001; Cohen et al., 2019; Fabinyi et al., 2022).

The challenges confronting fisherfolk communities extend beyond income-related concerns and often include limited organizational capacity, inadequate access to development opportunities, and weak institutional support. Such conditions hinder the ability of fishing households to improve their socio-economic status and participate effectively in local development initiatives. Studies have shown that sustainable livelihood improvement requires not only economic interventions but also the strengthening of community organizations that can facilitate collective action, resource mobilization, and capacity development (Béné, 2003; Bennett et al., 2019).

Among the various community-based approaches to development, cooperatives have been widely recognized as effective mechanisms for promoting economic inclusion, social empowerment, and organizational sustainability. Cooperatives enable individuals to pool resources, access financial services, engage in collective marketing, and participate in democratic decision-making processes. Through these functions, cooperatives create opportunities for members to strengthen their economic position while fostering collaboration and mutual support. In fisheries communities, cooperative organizations have been associated with improved market participation, increased access to

livelihood opportunities, and enhanced community engagement in development activities (Contreras Loera & Zulawska, 2013; Okem & Stanton, 2016).

The importance of cooperative organizations is grounded in the principle of collective action. According to Ostrom (1990), communities are capable of addressing common challenges and managing shared resources effectively when supported by appropriate governance arrangements and active member participation. Effective collective institutions encourage cooperation, accountability, and shared responsibility, thereby enhancing organizational sustainability. Similarly, contemporary studies emphasize that transparent governance, leadership capacity, and member engagement are critical factors influencing the success of community-based organizations and development initiatives (Bennett et al., 2019). For fisherfolk associations, these elements are particularly important because organizational sustainability often depends on the ability of members to work together in pursuing shared economic and social goals.

While cooperatives offer considerable potential for community development, their success is guaranteed by formal registration alone. Many organizations struggle to sustain operations due to inadequate leadership, weak governance structures, limited financial management skills, and insufficient member participation. Such challenges are especially evident among community-based organizations operating in economically marginalized environments. Consequently, the effectiveness of cooperatives depends largely on the readiness of members to engage in organizational activities and their ability to perform the competencies required for cooperative management and development.

Recent scholarship has highlighted cooperative readiness as a critical factor influencing the establishment and sustainability of cooperative enterprises. Cooperative readiness refers to the preparedness of individuals and organizations to participate effectively in cooperative activities through the possession of appropriate knowledge, skills, attitudes, and organizational capacities. Baco (2024) emphasized that successful cooperative engagement among fisherfolk communities requires competencies related to governance, leadership, communication, financial management, entrepreneurship, and organizational operations. The absence of these competencies may limit the effectiveness of cooperative initiatives and reduce their capacity to generate long-term benefits for members.

Capacity-building interventions therefore play a vital role in strengthening cooperative readiness. Training programs focusing on governance, financial literacy, business management, and leadership development can improve organizational performance and enhance the ability of members to participate in cooperative activities. Financial literacy and entrepreneurial competencies are particularly important in fisheries communities where household incomes are often seasonal and highly dependent on environmental conditions. Strengthening these competencies can support livelihood diversification, improve financial decision-making, and increase resilience to economic shocks (Grema et al., 2020; Villasante et al., 2022).

Another important dimension of fisheries development is gender participation. Although capture fisheries are traditionally dominated by men, women perform critical functions throughout fisheries value chains, including post-harvest processing, marketing, financial management, and community-based enterprise activities. Their contributions support household welfare and strengthen community resilience. Recent studies have also demonstrated the increasing role of women in leadership and sustainability initiatives within fisheries communities, highlighting the need for inclusive development approaches that recognize and strengthen their participation (Wara et al., 2008; Macusi et al., 2023).

The promotion of cooperative development is likewise consistent with broader sustainable development objectives. Fisheries contribute directly to poverty reduction, food security, decent work, and community resilience, all of which are reflected in the United Nations Sustainable Development Goals. Community organizations and cooperatives can serve as important vehicles for achieving these goals by strengthening local capacities, promoting stakeholder collaboration, and creating opportunities for sustainable livelihood development (Meharroof et al., 2023). Consequently, understanding the readiness of fisherfolk associations to engage in cooperative development is essential for designing interventions that support both community development and sustainability objectives.

Despite the recognized importance of cooperatives in fisheries development, limited empirical evidence exists regarding the readiness of fisherfolk associations to transition into sustainable cooperative organizations. Previous studies have primarily focused on fisheries governance, resource management, livelihood diversification, and cooperative performance, while relatively few have examined the specific socio-economic needs and competency requirements that influence cooperative readiness. Furthermore, evidence from the Philippine context remains limited, particularly among community-based fisherfolk organizations.

In Sagay City, Negros Occidental, fisherfolk associations actively participate in various livelihood and community development initiatives. However, little is known about their preparedness for cooperative engagement and the organizational capacities necessary to support successful cooperative formation and sustainability. Identifying these needs is essential for developing targeted interventions that address existing capacity gaps and strengthen organizational effectiveness.

Given this context, the study assessed the socio-economic needs and cooperative competency requirements of fisherfolk associations in Sagay City, Negros Occidental, Philippines. Specifically, it examined the demographic profile of association members, evaluated their community-social and cooperative competency needs, and determined whether significant differences existed across selected demographic characteristics. By identifying priority areas for capacity development, the study sought to provide an evidence-based foundation for a cooperative management extension program designed to strengthen cooperative readiness, enhance organizational capacity, and promote sustainable community development among fisherfolk associations.

Materials And Methods

Research Design

This study employed a quantitative descriptive-comparative research design to assess the socio-economic needs and cooperative competency requirements of fisherfolk associations in Sagay City, Negros Occidental, Philippines. The descriptive component was used to determine the demographic characteristics of the respondents and evaluate their perceived socio-economic and cooperative development needs. The comparative component examined whether significant differences existed in these needs when respondents were grouped according to selected demographic variables.

Study Area

The study was conducted in Sagay City, Negros Occidental, a coastal city located in the northern part of the province. The city is known for its extensive coastal resources and fisheries-based livelihoods, making it an appropriate setting for examining the readiness of fisherfolk associations for cooperative development. Several fisherfolk associations operating within the city's coastal barangays served as the source of respondents for the study.

Respondents and Sampling Procedure

The respondents consisted of 488 members of fisherfolk associations from selected coastal barangays in Sagay City. A stratified purposive sampling technique was employed to ensure representation from the participating associations while selecting individuals who were actively involved in fisheries-related and community-based activities. The sampling approach was deemed appropriate because the study sought information from individuals who possessed direct experience and knowledge regarding the operations, needs, and development concerns of fisherfolk organizations.

Research Instrument

Data were gathered using a structured survey questionnaire developed by the researchers based on the objectives of the study and relevant literature on cooperative development, community participation, and fisheries-based livelihoods. The instrument consisted of three sections. The first section collected demographic information, including age, sex, civil status, educational attainment, occupation, and household income. The second section assessed socio-economic needs in terms of community-social development concerns. The third section evaluated cooperative competency requirements in areas such as governance, leadership, financial management, organizational operations, member participation, and sustainability. Responses were measured using a four-point Likert scale ranging from 1 (Highly Needed) to 4 (Not Needed), with lower mean scores indicating greater perceived need for intervention and capacity development.

Validity and Reliability of the Instrument

To establish content validity, the questionnaire was evaluated by a panel of experts in cooperative development, community extension, management, and fisheries-related programs. Their comments and recommendations were incorporated to improve the clarity, relevance, and appropriateness of the instrument.

A pilot test was conducted among respondents from a community with characteristics similar to those of the target population. The reliability of the instrument was assessed using Cronbach's alpha coefficient. The resulting reliability coefficient indicated acceptable internal consistency, confirming that the instrument was suitable for data collection.

Data Gathering Procedure

Prior to data collection, permission was obtained from the appropriate local government authorities, community leaders, and officers of the participating fisherfolk associations. The purpose and objectives of the study were explained to prospective respondents, and informed consent was secured before the administration of the survey. The questionnaires were personally administered by the researchers and trained research assistants. Assistance was provided whenever clarification was needed to ensure that respondents fully understood the survey items. Completed questionnaires were retrieved, reviewed for completeness, and prepared for statistical analysis.

Data Analysis

The collected data were encoded, organized, and analyzed using appropriate statistical tools. Frequency counts and percentages were used to describe the demographic profile of the respondents. Means and standard deviations were utilized to determine the level of socio-economic needs and cooperative competency requirements. To determine whether significant differences existed in the respondents' assessments when grouped according to demographic characteristics, independent samples t-tests and one-way analysis of variance (ANOVA) were employed. All statistical tests were conducted at a 0.05 level of significance.

Ethical Considerations

The study adhered to established ethical standards for social science research. Participation was voluntary, and respondents were informed of the nature and purpose of the study prior to data collection. Confidentiality and anonymity were maintained throughout the research process, and all information obtained from respondents was used

solely for academic and research purposes. The study likewise observed the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173) in the handling and storage of research data.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Profile Variables	Frequency	Percent
Age		
Gen Z	25	5.1
Millennials	175	35.9
Gen X	176	36.1
Boomers	112	23.0
Sex		
Male	270	55.3
Female	218	44.7
Civil Status		
Single	63	12.9
Married	348	71.3
Separated	18	3.7
Widowed	30	6.1
Civil Partnership	29	5.9
Educational Attainment		
No Formal Schooling	46	9.4
Elementary Level	164	33.6
Elementary Graduate	90	18.4
High School Level	67	13.7
High School Graduate	90	18.4
Vocational Graduate	4	0.8
College Level	14	2.9
College Graduate	13	2.7
Nature of Work		
Temporary	349	71.5
Permanent	126	25.8
Contract	13	2.7
Source of Income		
Salaries	47	9.6
Self-Employed	337	69.1
Government Subsidy	19	3.9
Other Income	85	17.4
Average Monthly Family Income		
Below Php 10, 957 (Poor)	481	98.6
Php 10, 957 – Php 21, 194 (Low Income)	6	1.2
Php 21, 195 – Php 43, 828 (Lower Middle Class)	1	0.2
Total	488	100

Table 1 presents the demographic characteristics of the fisherfolk association members who participated in the study. Examining the demographic profile of respondents is important because socio-economic characteristics influence participation in community organizations, access to livelihood opportunities, and readiness for cooperative development. Understanding these characteristics provides valuable insights into the capacities and constraints that may affect the successful implementation of cooperative initiatives.

The age distribution revealed that most respondents belonged to the economically productive segment of the population. This finding suggests that the associations possess a substantial human resource base capable of

contributing to cooperative activities, organizational management, and community development programs. Individuals within the working-age population are often more actively engaged in livelihood generation and community decision-making because of their economic and family responsibilities. Their participation provides an opportunity for cooperatives to harness local knowledge, skills, and experience necessary for organizational sustainability. Studies have shown that active participation from productive-age members contributes positively to collective action and organizational effectiveness within community-based organizations (Baco, 2024; Contreras Loera & Zulawska, 2013).

In terms of sex, male respondents comprised a slightly larger proportion of the sample, reflecting the traditional nature of fishing activities in which men are primarily engaged in capture fisheries. Nevertheless, the substantial participation of women demonstrates their significant contribution to fisheries-related livelihoods and community development. Women commonly participate in post-harvest processing, product marketing, financial management, and household economic activities. Their involvement strengthens both household welfare and community resilience. Macusi et al. (2023) emphasized the growing role of women in fisheries leadership and sustainability initiatives, while Wara et al. (2008) highlighted their contribution to fisheries enterprises and local economic development. These findings underscore the importance of adopting gender-responsive approaches in cooperative development and capacity-building interventions.

The predominance of married respondents indicates that many association members bear substantial family responsibilities and rely on fisheries-related activities as their primary source of income. Such responsibilities may influence their motivation to participate in cooperative initiatives that offer opportunities for livelihood enhancement, financial security, and economic stability. Cooperative organizations can serve as mechanisms through which households gain access to financial resources, enterprise opportunities, and collective support systems that contribute to improved quality of life.

The educational profile of the respondents revealed relatively low levels of formal educational attainment. This characteristic is common among many small-scale fishing communities and may affect access to information, employment opportunities, and organizational participation. Allison and Ellis (2001) argued that education enhances individuals' ability to diversify livelihoods and adapt to changing economic conditions. Lower educational attainment may also limit familiarity with cooperative governance, financial management practices, and organizational procedures. Consequently, extension programs and capacity-building initiatives should employ practical and community-based learning strategies that are responsive to the educational backgrounds of intended beneficiaries.

The occupational and income characteristics further reflect the economic realities of the respondents. Many depended primarily on fishing and fisheries-related activities that are often characterized by income instability and seasonal fluctuations. Such dependence exposes households to uncertainties arising from environmental changes, market conditions, and variations in fish production. Béné (2003) described poverty among fishing communities as a multidimensional condition shaped not only by limited income but also by restricted access to resources and development opportunities. Similarly, Cohen et al. (2019) observed that small-scale fisheries communities frequently encounter structural barriers that limit economic mobility and livelihood improvement. Grema et al. (2020) further noted that inadequate integration into fisheries value chains and marketing systems can constrain income generation and reduce opportunities for economic advancement.

The income profile suggests that many respondents belong to low-income households, highlighting the need for interventions that strengthen financial literacy, enterprise development, and market participation. Fisheries cooperatives have been recognized as effective mechanisms for improving access to credit, training, collective marketing opportunities, and other support services that may otherwise be inaccessible to individual fishers (Contreras Loera & Zulawska, 2013; Okem & Stanton, 2016). Strengthening these areas may contribute to improved livelihood outcomes and greater economic resilience among fisherfolk communities.

The findings indicate that the fisherfolk community is characterized by economic vulnerability, modest educational attainment, and a strong dependence on fisheries-based livelihoods. Nevertheless, the presence of a predominantly working-age population and the active participation of both men and women suggest considerable potential for cooperative engagement and organizational development. Baco (2024) emphasized that cooperative readiness is influenced by the socio-economic and organizational capacities of community members. Thus, strengthening competencies related to governance, leadership, financial management, and entrepreneurship may enhance the ability of fisherfolk associations to transition into sustainable cooperative enterprises. Furthermore, promoting cooperative development among fishing communities contributes to broader sustainable development objectives related to poverty reduction, economic inclusion, and community resilience (Meharoor et al., 2023). The demographic characteristics identified in this study therefore provide important baseline information for designing extension interventions that support cooperative readiness and long-term organizational sustainability.

Table 2. Socio-economic needs in terms of community-social needs

Needs	Mean	Standard Deviation	Interpretation
1. Community Group Awareness for Sustainable Development Initiatives	3.18	0.947	Minimally Needed

2.1 Existing Awareness of Community-Based Economic Activities: Integration of Fishing and Business in Communities	2.94	0.982	Minimally Needed
2.2 Existing Awareness of Community-Based Economic Activities: Traditional Agricultural Programs and Practical Participation	2.87	1.036	Minimally Needed
3.1 Community-Based Training: Financial Literacy & Financial Management	2.36	1.077	Highly Needed
3.2 Community-Based Training: Customer Service	2.27	1.094	Highly Needed
3.3 Community-Based Training: Good Governance	2.45	1.079	Highly Needed
3.4 Community-Based Training: Business Literacy	2.34	1.116	Highly Needed
4. Member Training on Human Rights and Governance Issues	2.57	1.063	Minimally Needed
5. Community Training for Planning and Decision-Making Enhancement	2.59	1.017	Minimally Needed
6. Engagement in Socio-Economic Development with Stakeholders	2.77	1.035	Minimally Needed
As a Whole	2.68	0.808	Minimally Needed

Table 2 presents the respondents' assessment of socio-economic needs in terms of community-social development. The overall mean of 2.68, interpreted as minimally needed, suggests that members of the fisherfolk associations possess a basic level of awareness and engagement in community-related activities. However, the findings also reveal specific areas where substantial capacity gaps remain, particularly in competencies directly associated with organizational effectiveness, livelihood improvement, and cooperative readiness.

Among the indicators, Community Group Awareness for Sustainable Development Initiatives obtained the highest mean score, indicating that respondents perceived this area as minimally needed. This finding suggests that members are generally aware of community development activities and sustainability-related initiatives implemented within their localities. Such awareness may be attributed to the continuing involvement of local government units, community organizations, and development agencies in fisheries-related programs. Awareness of sustainable development is important because it encourages participation in initiatives that promote environmental stewardship, economic resilience, and community well-being. Meharoof et al. emphasized that sustainable fisheries development contributes directly to broader development goals, including poverty reduction, food security, and community resilience. Nevertheless, awareness alone may not be sufficient to achieve sustainable outcomes without the competencies necessary to translate knowledge into meaningful action.

Similarly, respondents reported minimal need for additional awareness regarding the integration of fishing and business activities as well as participation in traditional agricultural programs. These findings indicate that the respondents are already familiar with livelihood-related activities commonly practiced within rural and coastal communities. Fishing households often engage in multiple income-generating activities as a strategy for coping with economic uncertainty and livelihood risks. Allison and Ellis (2001) noted that livelihood diversification enhances the capacity of households to withstand economic and environmental shocks, particularly in resource-dependent communities. Familiarity with diversified livelihood activities therefore represents an important foundation for future cooperative and enterprise development initiatives.

Despite the generally low level of perceived community-social needs, several indicators were identified as highly needed, particularly those related to capacity development. Training on good governance, financial literacy and financial management, business literacy, and customer service emerged as the most pressing needs among respondents. These findings suggest that while members possess basic awareness of community development concepts, they perceive significant gaps in the practical competencies required to improve organizational performance and economic outcomes.

The strong demand for governance-related training highlights the importance of effective leadership, accountability, and participatory decision-making within community organizations. Governance competencies are essential for the successful operation of cooperatives because they influence transparency, member participation, conflict management, and organizational sustainability. Bennett et al. (2019) emphasized that strong governance systems contribute to greater trust, stakeholder engagement, and support for community-based initiatives. Similarly, Okem and Stanton (2016) argued that organizational success within cooperative enterprises depends heavily on members' understanding of governance structures and their ability to participate effectively in organizational processes.

Financial literacy and financial management were also identified as highly needed areas. This finding reflects the economic realities of many fisherfolk households, which often operate under conditions of income instability and financial vulnerability. Effective financial management enables individuals and organizations to manage resources efficiently, improve budgeting practices, and make informed economic decisions. Grema et al. (2020) highlighted that weaknesses in production, marketing, and financial systems frequently constrain the economic potential of fishing

communities. Strengthening financial competencies may therefore enhance both household welfare and organizational sustainability.

Business literacy likewise emerged as a priority concern. The finding suggests that respondents recognize the need to develop entrepreneurial competencies that can support livelihood diversification and improve participation in local markets. Small-scale fisheries increasingly operate within complex economic environments where market access, product development, and enterprise management influence income generation and competitiveness. Contreras Loera and Zulawska (2013) emphasized that fisheries cooperatives can improve economic outcomes when members possess the knowledge and skills necessary to participate effectively in collective enterprise activities. Enhancing business literacy may therefore contribute to both cooperative development and broader livelihood improvement.

Customer service was also identified as a highly needed competency. Although often associated with formal business enterprises, customer service skills are increasingly relevant in community-based economic activities, fisheries marketing, and cooperative operations. Effective communication and relationship-building skills can strengthen interactions with buyers, stakeholders, and development partners, thereby improving market participation and organizational credibility.

The moderate ratings assigned to human rights and governance issues, community planning and decision-making, and stakeholder engagement suggest that respondents possess some familiarity with these areas but still recognize opportunities for further development. Community participation and stakeholder collaboration are critical components of sustainable development because they facilitate resource mobilization, collective decision-making, and institutional support. Cohen et al. (2019) noted that meaningful participation and inclusive governance strengthen the ability of small-scale fisheries communities to address development challenges and pursue sustainable livelihood opportunities.

The findings indicate that while fisherfolk association members demonstrate a foundational awareness of community development and sustainability initiatives, significant competency gaps remain in governance, financial management, entrepreneurship, and organizational development. These areas represent critical dimensions of cooperative readiness. Baco (2024) emphasized that successful cooperative engagement depends on the capacity of members to perform essential organizational, financial, and leadership functions. Consequently, future extension interventions should prioritize skills-based capacity-building programs that strengthen governance practices, financial literacy, business management competencies, and stakeholder engagement. Addressing these needs can enhance organizational readiness, improve livelihood opportunities, and support the long-term sustainability of cooperative enterprises within fisherfolk communities.

Table 3. Cooperative Education and Management Perceived Skills Training Requirement Level

Needs	Mean	Standard Deviation	Interpretation
1.1 Basic Concept and Knowledge on Cooperatives: Definitive Aspect	1.97	.985	Highly Needed
1.2 Basic Concept and Knowledge on Cooperatives: Formation Aspect	1.95	.986	Highly Needed
1.3 Basic Concept and Knowledge on Cooperatives: Operation Aspect	1.94	.983	Highly Needed
2.1 Cooperative Competencies: Filing	1.98	.993	Highly Needed
2.2 Cooperative Competencies: Teller-section	1.93	.964	Highly Needed
2.3 Cooperative Competencies: Record-keeping	1.98	.998	Highly Needed
2.4 Cooperative Competencies: Retaining Members' Relation	2.13	1.038	Highly Needed
2.5 Cooperative Competencies: Members' Skill Development Movement/Initiative	1.99	.998	Highly Needed
2.6 Cooperative Competencies: Livelihood Training Initiatives	2.03	1.020	Highly Needed
2.7 Cooperative Competencies: Risk Management	2.00	.997	Highly Needed
2.8 Cooperative Competencies: Financial Literacy	2.02	1.014	Highly Needed
3.1 Cooperative Operations: Organization	1.99	1.062	Highly Needed
3.2 Cooperative Operations: Development	1.99	1.065	Highly Needed
3.3 Cooperative Operations: Management	1.99	1.067	Highly Needed
4. Living Community Values for Entrepreneurial Mindset Development	2.00	1.068	Highly Needed
5.1 Cooperative Basic Principles: Voluntary & Open Membership	1.93	1.004	Highly Needed
5.2 Cooperative Basic Principles: Democratic Member Control	1.94	1.022	Highly Needed

5.3 Cooperative Basic Principles: Member's Economic Participation	1.95	1.025	Highly Needed
5.4 Cooperative Basic Principles: Autonomy and Independence	1.86	.978	Highly Needed
5.5 Cooperative Basic Principles: Cooperative Education, Training & Information	1.92	1.014	Highly Needed
5.6 Cooperative Basic Principles: Cooperatives Cooperation	1.90	.988	Highly Needed
5.7 Cooperative Sustainability for Growth & Opportunities	2.07	1.104	Highly Needed
As a Whole	1.98	.897	Highly Needed

Table 3 presents the respondents' perceived skills training requirements in cooperative education and management. The overall mean of 1.98, interpreted as highly needed, indicates a substantial demand for capacity-building interventions related to cooperative formation, governance, administration, financial management, and organizational sustainability. The findings suggest that while respondents may already possess basic awareness of community development initiatives, they recognize significant gaps in the competencies necessary to establish, operate, and sustain a cooperative enterprise. This result highlights the importance of cooperative readiness as a critical component of successful cooperative development among fisherfolk associations.

The consistently high ratings across all indicators demonstrate a widespread recognition among respondents of the need for cooperative education and management training. This finding suggests that the perceived competency gaps are not confined to a specific aspect of cooperative development but extend across foundational knowledge, operational management, member relations, financial administration, and organizational sustainability. Baco (2024) emphasized that cooperative readiness requires the acquisition of competencies that enable members to participate effectively in governance, leadership, financial management, and organizational operations. The findings therefore indicate that respondents understand the importance of strengthening their capacities before engaging in formal cooperative activities.

The indicators related to basic concepts and knowledge on cooperatives, including the definitive, formation, and operational aspects, were all rated as highly needed. These findings underscore the importance of foundational cooperative education in preparing members for active participation in cooperative enterprises. Understanding the nature, purpose, formation process, and operational requirements of cooperatives is essential for promoting informed membership and effective organizational participation. Okem and Stanton (2016) argued that cooperative organizations are more likely to succeed when members possess a clear understanding of cooperative principles, structures, and governance mechanisms. Without such understanding, organizations may encounter difficulties in sustaining member engagement and achieving long-term objectives.

Similarly, respondents identified substantial training needs in key cooperative competencies such as filing, teller functions, record-keeping, member relations, member development initiatives, livelihood training, risk management, and financial literacy. These competencies represent the administrative and operational foundations of effective cooperative management. Accurate record-keeping and sound financial administration promote transparency, accountability, and organizational efficiency, while member development initiatives strengthen participation and organizational cohesion. Gedam and Dongare (2025) observed that many fisheries cooperatives face challenges related to inadequate management systems, weak governance structures, and limited organizational capacity, underscoring the importance of developing administrative and managerial competencies among cooperative members.

Among the identified competencies, the strong demand for financial literacy training is particularly significant. Financial literacy is fundamental to both household economic management and cooperative sustainability. Many fishing households operate under conditions of income uncertainty, making financial planning, budgeting, savings management, and resource allocation essential skills. Grema et al. (2020) emphasized that weaknesses in financial and marketing systems frequently constrain the development potential of fishing communities. Strengthening financial literacy can therefore enhance individual economic resilience while supporting the sound management of cooperative resources and enterprises.

The findings further revealed that respondents perceived cooperative operations, including organization, development, and management, as highly needed areas for training. These results indicate recognition of the importance of managerial competencies necessary for sustaining cooperative enterprises. Effective cooperative management requires skills in planning, organizing, monitoring, decision-making, and resource management. Fisheries cooperatives are expected to function not only as social organizations but also as economic enterprises capable of generating benefits for their members. Contreras Loera and Zulawska (2013) emphasized that fisheries cooperatives contribute to sustainable rural development when supported by effective organizational structures and competent management practices. Strengthening these operational competencies may therefore improve both organizational performance and long-term sustainability.

The high rating assigned to entrepreneurial mindset development further highlights respondents' recognition of the need to strengthen enterprise-related competencies. Entrepreneurial skills encourage innovation, opportunity recognition, strategic thinking, and proactive problem-solving. These competencies are increasingly important in fisheries communities where livelihood diversification and value-added activities can reduce dependence on traditional fishing practices and improve economic opportunities. Developing entrepreneurial mindsets may therefore enhance both household resilience and cooperative viability.

The indicators related to cooperative principles, including voluntary and open membership, democratic member control, economic participation, autonomy and independence, cooperative education and training, cooperation among cooperatives, and sustainability, were likewise rated as highly needed. These principles constitute the foundation of cooperative identity and distinguish cooperatives from other organizational forms. Understanding these principles is essential for promoting accountability, participation, equity, and shared responsibility among members. Ostrom (1990) emphasized that successful collective institutions depend on shared rules, member participation, and effective governance arrangements. Similarly, cooperative principles provide the framework through which members can collectively pursue organizational goals while maintaining democratic control and accountability.

Particularly noteworthy is the strong demand for training related to autonomy and independence, cooperative education, and cooperation among cooperatives. These findings suggest that respondents recognize the importance of organizational self-reliance while maintaining productive relationships with external stakeholders and partner organizations. Cooperatives that possess strong institutional foundations are generally better positioned to adapt to changing economic conditions, respond to member needs, and sustain operations over time.

The findings indicate that fisherfolk association members perceive significant gaps in cooperative education, management, governance, and operational competencies. These results reinforce the view that cooperative readiness remains a critical developmental concern among the study population. The broad range of training needs identified suggests that future extension interventions should adopt a comprehensive approach encompassing cooperative principles, governance, leadership, financial literacy, entrepreneurship, administrative systems, and organizational management. Such interventions may strengthen the capacity of fisherfolk associations to establish sustainable cooperative enterprises, improve socio-economic opportunities, and contribute to broader goals of community empowerment, economic inclusion, and sustainable development.

Table 4. Significant Differences in Cooperative Education and Management Skills Training Requirements by Demographic Profile

Grouping Variables	t/F	p	Interpretation
Age	0.317	0.813	Not Significant
Sex	-0.098	0.922	Not Significant
Civil Status	1.268	0.282	Not Significant
Educational Attainment	0.294	0.956	Not Significant
Nature of Work	1.055	0.349	Not Significant
Source of Income	1.037	0.376	Not Significant
Average Family Monthly Income	0.914	0.402	Not Significant

Table 4 presents the results of the tests of significant differences in cooperative education and management skills training requirements when respondents were grouped according to selected demographic characteristics. The findings revealed that age, sex, civil status, educational attainment, nature of work, source of income, and average family monthly income did not significantly influence the respondents' perceived training requirements. Since all computed p-values exceeded the 0.05 level of significance, the null hypothesis was accepted. This indicates that respondents shared similar perceptions regarding their need for cooperative education and management training regardless of their demographic backgrounds.

The absence of significant differences across age groups suggests that the need for cooperative education and management competencies is equally recognized by younger and older association members. Regardless of age, respondents perceived substantial gaps in their knowledge and skills related to cooperative formation, governance, administration, and sustainability. This finding implies that cooperative readiness is not limited to a particular age category but is a common concern among association members. The result may be attributed to the relatively limited exposure of respondents to formal cooperative operations, resulting in a shared recognition of the need for capacity-building interventions.

Similarly, no significant difference was found when respondents were grouped according to sex. This finding indicates that both male and female members perceived comparable levels of need for cooperative education and management training. The result reflects a common understanding among respondents that cooperative success depends on the collective competencies of all members regardless of gender. Previous studies have emphasized that both men and women play important roles in fisheries development and organizational sustainability. Macusi et al. (2023) highlighted the growing participation of women in fisheries leadership and community development initiatives, while Wara et al. (2008) emphasized the contribution of women to fisheries enterprises and local economic activities. The findings therefore support the implementation of inclusive capacity-building programs that provide equal learning opportunities for all members.

Civil status likewise did not significantly affect respondents' perceptions of cooperative training requirements. Whether respondents were single, married, widowed, or separated, they expressed similar assessments regarding the competencies needed for cooperative development. This finding suggests that family circumstances do not substantially alter perceptions regarding the importance of cooperative education and management skills. The shared recognition of these needs may stem from common livelihood challenges and collective aspirations for improved socio-economic conditions through cooperative engagement.

Educational attainment also showed no significant relationship with perceived training requirements. Respondents with varying levels of formal education demonstrated similar assessments of their need for cooperative competencies. This finding is particularly important because it indicates that the demand for cooperative-related knowledge extends across different educational backgrounds. Although education may influence access to information and learning opportunities, respondents generally recognized the importance of acquiring practical competencies related to governance, financial management, organizational operations, and member participation. Baco (2024) emphasized that cooperative readiness is strengthened through targeted capacity-building interventions that develop organizational and managerial competencies regardless of formal educational attainment.

The results further revealed no significant differences when respondents were grouped according to nature of work, source of income, and average family monthly income. These findings suggest that respondents shared common perceptions regarding cooperative education and management needs despite differences in livelihood activities and economic circumstances. Such consistency may reflect the similar socio-economic realities experienced by members of fishing communities, including livelihood vulnerability, income instability, and limited access to economic opportunities. Cohen et al. (2019) noted that small-scale fisheries communities often encounter similar structural and institutional constraints that shape their development priorities and capacity-building needs.

The uniformity of responses across demographic groups suggests that cooperative education and management competencies are perceived as universally important among members of the fisherfolk associations. The absence of significant differences indicates that the identified training needs are not confined to specific demographic sectors but are shared throughout the community. This finding supports the implementation of community-wide extension interventions rather than highly segmented training programs. Such an approach may promote greater participation, strengthen collective learning, and foster a shared understanding of cooperative principles and practices.

The findings further reinforce the argument that cooperative readiness is a collective developmental concern among fisherfolk associations. Baco (2024) emphasized that successful cooperative engagement requires competencies in governance, leadership, financial management, communication, and organizational operations. Likewise, Gedam and Dongare (2025) observed that fisheries cooperatives frequently encounter challenges associated with weak governance systems, limited management capacity, and inadequate member training, emphasizing the need for broad-based capacity development initiatives. The consistently high training requirements observed across demographic groups indicate that extension programs should focus on strengthening these competencies among all members. By addressing the shared capacity gaps identified in the study, cooperative development initiatives can enhance organizational readiness, improve member participation, and increase the likelihood of establishing sustainable and effective cooperative enterprises within fisherfolk communities.

Table 5. Significant Differences in Assessed Community Social Needs by Demographic Profile

Grouping Variables	Community-Social Needs		
	t/F	p	Interpretation
Age	1.577	0.194	Not Significant
Sex	-0.486	0.627	Not Significant
Civil Status	0.960	0.429	Not Significant
Educational Attainment	1.882	0.701	Not Significant

Nature of Work	0.046	0.955	Not Significant
Source of Income	2.051	0.106	Not Significant
Average Family Monthly Income	0.508	0.602	Not Significant

Table 5 presents the results of the tests of significant differences in the respondents' assessed community-social needs when grouped according to selected demographic characteristics. The findings revealed that age, sex, civil status, educational attainment, nature of work, source of income, and average family monthly income did not significantly influence the respondents' perceptions of community-social needs. Since all computed p-values were greater than the 0.05 level of significance, the null hypothesis was accepted. This indicates that respondents shared relatively similar perceptions regarding their community-social needs regardless of demographic background.

The absence of significant differences across age groups suggests that respondents, irrespective of age, recognized similar community-social development concerns. This finding implies that the need for community awareness, stakeholder engagement, planning, governance, financial literacy, and business-related competencies is not confined to a particular age category. Rather, these needs appear to be widely experienced across the membership of fisherfolk associations. The result may reflect the common socio-economic realities encountered by fishing communities, where members face similar livelihood challenges and development concerns regardless of age.

Similarly, no significant difference was found when respondents were grouped according to sex. This finding indicates that both male and female respondents perceived comparable levels of community-social needs. The result suggests that men and women share similar experiences regarding community participation, governance concerns, livelihood development, and stakeholder engagement. While roles within fisheries value chains may differ, both groups appear to recognize the importance of strengthening community capacities and improving socio-economic conditions. This observation supports previous studies emphasizing that both men and women contribute significantly to community development and fisheries-related activities (Macusi et al., 2023; Wara et al., 2008).

Civil status also did not significantly influence respondents' assessments of community-social needs. Whether respondents were single, married, widowed, or separated, they demonstrated similar perceptions regarding the importance of community development interventions. This finding suggests that family circumstances do not substantially affect the recognition of community-level concerns and developmental priorities. The shared perceptions may be attributed to the collective nature of the challenges experienced within fishing communities, where economic vulnerability and limited access to opportunities affect households across different family situations.

Likewise, educational attainment did not significantly affect the respondents' assessments of community-social needs. Individuals with varying levels of formal education reported similar perceptions regarding the need for community-based training, governance enhancement, stakeholder engagement, and socio-economic development initiatives. This finding indicates that the identified community-social concerns transcend educational differences and are recognized by association members regardless of academic background. Although education may influence access to information and opportunities, the developmental needs identified in the study appear to be broadly shared within the community.

No significant differences were likewise observed when respondents were grouped according to nature of work, source of income, and average family monthly income. These findings suggest that respondents experience similar community-social concerns despite differences in employment characteristics and economic circumstances. Small-scale fisheries communities frequently encounter common challenges related to livelihood insecurity, market limitations, governance issues, and access to development opportunities. Cohen et al. (2019) noted that many fishing communities experience similar structural constraints that shape their socio-economic conditions and development priorities. Consequently, members tend to share common perceptions regarding the interventions needed to improve community well-being and organizational effectiveness.

The consistency of responses across all demographic groups suggests that the identified community-social needs represent collective concerns rather than issues specific to particular sectors of the population. This finding is important because it indicates that interventions designed to address governance, financial literacy, business development, community participation, and stakeholder engagement can be implemented broadly across fisherfolk associations without the need for extensive demographic segmentation. Such an approach may promote inclusivity, strengthen community cohesion, and encourage wider participation in development initiatives.

The findings further support the argument that community-social development is a shared concern among fisherfolk associations. Baco (2024) emphasized that strengthening community capacities and organizational competencies is essential for improving cooperative readiness and supporting sustainable community development. Likewise, Gedam and Dongare (2025) observed that fisheries cooperatives contribute to fisherfolk empowerment through improved access to resources, training opportunities, community participation, and socio-economic development initiatives. The

absence of significant differences across demographic variables suggests that these developmental concerns are universally recognized among association members. Therefore, extension programs aimed at enhancing community participation, governance, financial literacy, entrepreneurial development, and stakeholder collaboration may be effectively delivered on a community-wide basis. Such interventions can strengthen organizational capacity, improve cooperative readiness, and contribute to the long-term sustainability and resilience of fisherfolk communities.

Conclusions

This study assessed the socio-economic needs and cooperative competency requirements of fisherfolk associations in Sagay City, Negros Occidental, Philippines as a basis for developing a cooperative management extension program. The findings revealed that the respondents were generally characterized by economic vulnerability, modest educational attainment, and dependence on fisheries-based livelihoods. Despite these conditions, the demographic profile suggests considerable potential for cooperative engagement, particularly given the active participation of both men and women and the presence of a predominantly productive-age population.

The assessment of community-social needs showed that respondents possessed a basic level of awareness regarding community development and sustainability initiatives. However, significant competency gaps were identified in governance, financial literacy, business literacy, and customer service. These findings indicate that while awareness of development concerns exists, practical competencies necessary for effective participation in community-based organizations and economic activities remain insufficient. Such competencies are essential for strengthening community participation, enhancing organizational effectiveness, and improving socio-economic outcomes.

The study further revealed a strong demand for cooperative education and management training. Respondents consistently identified the need for capacity development in cooperative principles, governance, financial administration, organizational management, entrepreneurship, member development, and sustainability. These findings suggest that cooperative readiness remains a critical developmental concern among fisherfolk associations. The successful establishment and sustainability of cooperatives require not only member participation but also adequate knowledge, skills, and organizational capacities that support effective governance and enterprise management.

The absence of significant differences in both community-social needs and cooperative education and management training requirements across demographic variables indicates that the identified developmental concerns are broadly shared among association members. Regardless of age, sex, civil status, educational attainment, occupation, source of income, or household income level, respondents demonstrated similar perceptions regarding the competencies required for cooperative development. This finding highlights the collective nature of the challenges and opportunities facing fisherfolk associations and supports the implementation of inclusive, community-wide capacity-building interventions.

The findings contribute to the growing body of knowledge on cooperative development and fisherfolk empowerment by providing empirical evidence on the readiness of community-based organizations to engage in cooperative formation and management. More importantly, the study highlights the interconnected roles of governance, financial literacy, entrepreneurship, organizational management, and stakeholder engagement in strengthening cooperative readiness and organizational sustainability.

The results further demonstrate that cooperative readiness extends beyond organizational preparation and serves as an important foundation for sustainable community development. Strengthening community capacities and cooperative competencies can enhance economic participation, improve livelihood opportunities, promote inclusive decision-making, and increase community resilience. These outcomes are closely aligned with broader sustainable development objectives, particularly those related to poverty reduction, decent work and economic growth, reduced inequalities, sustainable communities, and strong institutions.

The development of cooperative readiness among fisherfolk associations therefore constitutes an important mechanism for strengthening community empowerment, improving organizational sustainability, and advancing long-term sustainable development within coastal communities. By investing in cooperative education, governance, entrepreneurship, and financial management, fisherfolk associations may be better positioned to address socio-economic challenges, expand livelihood opportunities, and contribute to more resilient and sustainable fisheries-dependent communities.

RECOMMENDATIONS

Based on the findings of the study, a comprehensive Cooperative Management Extension Program may be developed and implemented to address the identified competency gaps among fisherfolk associations. The program should prioritize training in cooperative principles, governance, financial literacy, business literacy, entrepreneurship, organizational management, member development, and stakeholder engagement to strengthen cooperative readiness and organizational sustainability.

Fisherfolk associations may be encouraged to participate actively in capacity-building initiatives that enhance their knowledge and skills in cooperative operations and management. Strengthening these competencies may improve

organizational effectiveness, promote member participation, and increase the likelihood of establishing sustainable cooperative enterprises.

Local government units, the Cooperative Development Authority, higher education institutions, and other development partners may strengthen collaboration in designing and implementing community-based interventions that support cooperative development. Multi-stakeholder partnerships may facilitate access to technical assistance, financial resources, training opportunities, and market linkages necessary for organizational growth and community development.

Community development initiatives may incorporate financial literacy, livelihood diversification, and entrepreneurial development programs to improve the economic resilience of fisherfolk households. Such interventions may help address income instability, expand livelihood opportunities, and enhance the capacity of communities to respond to socio-economic and environmental challenges.

Given the absence of significant differences across demographic groups, extension programs may be implemented using an inclusive community-wide approach. This strategy may encourage broader participation, strengthen collective learning, and foster a shared understanding of cooperative principles and practices among association members.

Future studies may validate the proposed Cooperative Management Extension Program and evaluate its effectiveness in improving cooperative readiness, organizational performance, and socio-economic outcomes among fisherfolk communities. Researchers may likewise explore additional variables such as leadership capacity, social capital, organizational commitment, community resilience, and sustainability outcomes to further advance understanding of cooperative development in fisheries-dependent communities.

Further comparative studies involving different municipalities, provinces, or regions may also be undertaken to determine whether the identified cooperative readiness needs and competency requirements are consistent across diverse fisheries contexts. Such investigations may contribute to the development of a broader framework for cooperative readiness and sustainable community development among fisherfolk organizations.

ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to the fisherfolk communities in Sagay City, Northern Negros Occidental, for their participation and cooperation in this study. The authors also acknowledge the support of the local government units and relevant agencies for facilitating data collection and providing necessary information. Appreciation is extended to individuals who assisted in the administration of the survey and data processing.

References

1. Allison, E. H., & Ellis, F. (2001). The livelihoods approach and management of small-scale fisheries. *Marine Policy*, 25(5), 377–388. [https://doi.org/10.1016/S0308-597X\(01\)00023-9](https://doi.org/10.1016/S0308-597X(01)00023-9)
2. Baco, M. B. (2024). Exploring fisherfolk community readiness for cooperative engagement in the Global South. *Journal of Infrastructure, Policy and Development*, 8(12), 6389. <https://doi.org/10.24294/jipd.v8i12.6389>
3. Béné, C. (2003). When fishery rhymes with poverty: A first step beyond the old paradigm on poverty in small-scale fisheries. *World Development*, 31(6), 949–975. [https://doi.org/10.1016/S0305-750X\(03\)00045-7](https://doi.org/10.1016/S0305-750X(03)00045-7)
4. Bennett, N. J., Blythe, J., White, C. S., & Campero, C. (2021). Blue growth and blue justice: Ten risks and solutions for the ocean economy. *Marine Policy*, 125, 104387. <https://doi.org/10.1016/j.marpol.2020.104387>
5. Cohen, P. J., Allison, E. H., Andrew, N. L., Cinner, J., Evans, L. S., Fabinyi, M., Garces, L. R., Hall, S. J., Hicks, C. C., Hughes, T. P., Jentoft, S., Mills, D. J., Masu, R., Mbaru, E. K., & Ratner, B. D. (2019). Securing a just space for small-scale fisheries in the blue economy. *Frontiers in Marine Science*, 6, 171. <https://doi.org/10.3389/fmars.2019.00171>
6. Contreras Loera, M. R., & Zulawska, U. (2013). Fisheries cooperative organization and sustainable development in the rural community. *Journal of Intercultural Management*, 5(1), 19–28.
7. Fabinyi, M., Dressler, W. H., & Pido, M. D. (2022). Coastal transitions: Small-scale fisheries, livelihoods, and maritime zone developments in Southeast Asia. *Journal of Rural Studies*, 91, 184–194. <https://doi.org/10.1016/j.jrurstud.2022.02.006>
8. Gedam, M. P., & Dongare, S. (2025). Fishery cooperatives and their role in empowering fisherfolk in India. *International Journal of Advanced Research in Commerce, Management & Social Science*, 8(2), 45–48.
9. Grema, H. A., Kwaga, J. K. P., Bello, M., & Umaru, O. H. (2020). Understanding fish production and marketing systems in north-western Nigeria and identification of potential food safety risks using value chain framework. *Preventive Veterinary Medicine*, 181, 105038. <https://doi.org/10.1016/j.prevetmed.2020.105038>
10. Macusi, E. D., Maynawang, I. S., Katikero, R. E., Suyu, J. G., & Macusi, E. S. (2023). Women lead small-scale fisheries to sustainability in Surigao del Sur, Philippines. *Marine Policy*, 155, 105768. <https://doi.org/10.1016/j.marpol.2023.105768>
11. Meharoof, M., Albert Christy, A., & Kumar, R. R. (2023). Sustainable Development Goals and fisheries sector: Progressing towards a sustainable future. *Aquaculture Spectrum*, 6(3), 12–25.

12. Okem, A. E., & Stanton, A. (2016). Contextualising the cooperative movement in Africa. In A. E. Okem (Ed.), *Theoretical and empirical studies on cooperatives: Lessons for cooperatives in South Africa* (pp. 15–26). Springer International Publishing.
13. Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.
14. Wara, A., Nwabeze, G. O., Tafida, A. A., & Abubarkar, S. M. (2008). *Women in fisheries: A case study of the Kainji Lake Basin, Nigeria*. Fisheries Society of Nigeria. <http://aquaticcommons.org/id/eprint/23222>