International Journal of Sustainability and Advanced Integrated Research
Volume 2, Issue 3 (July-September 2026) | ISSN: 3107-7854
DOI: https://doi.org/10.65339/ijsair.V2.I3.717

Sustainability of Darangan Water Service Development Cooperative: Basis for Strategic Plan

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Publication history: Received: June 2, 2026; Revised: July 3, 2026; Accepted: July 6, 2026
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Abstract

This study assessed the sustainability of the Darangan Water Service Development Cooperative (DWSDC) as the basis for developing a strategic plan for 2026–2030. Specifically, it examined the cooperative's financial performance, operational resilience, and community engagement through key sustainability indicators, including net surplus, earnings per share (EPS), return on equity (ROE), revenue growth, and surplus allocation. A descriptive research design utilizing documentary analysis was employed, with audited financial statements from 2022–2024 serving as the primary data source. Benchmarking was also conducted against selected neighboring cooperatives in Binangonan, Rizal to evaluate comparative financial performance and operational practices. Findings revealed that DWSDC demonstrated consistent financial growth, generating ₱18.67 million in gross revenues and a net surplus of ₱3.25 million in 2024, supported by increasing members' equity and prudent allocation of statutory reserves. However, rising administrative costs and dependence on water operations highlight the need for enhanced cost efficiency, service diversification, and risk management. The study concludes that a structured strategic planning framework is essential to sustain financial stability, strengthen organizational resilience, improve operational efficiency, and enhance community trust. Accordingly, a five-year strategic plan emphasizing resource optimization, infrastructure development, technological innovation, climate resilience, capacity building, and external resource mobilization is recommended to ensure the cooperative's long-term sustainability and competitiveness.

Keywords:, Sustainability, Strategic Planning, Water Service Cooperative, Financial Performance, Operational Resilience, Cooperative Management, Benchmarking, Darangan Water Service Development Cooperative.

Introduction

Access to safe, reliable, and sustainable water services is fundamental to public health, economic development, and environmental sustainability. Water service cooperatives play a significant role in providing affordable and community-based water services, particularly in rural and peri-urban communities where government and private utilities have limited reach. Unlike investor-owned utilities, cooperatives are member-owned organizations that prioritize service quality, equitable access, and community welfare while ensuring financial viability. However, increasing operational costs, aging infrastructure, climate-related risks, and changing regulatory requirements have challenged the long-term sustainability of many water cooperatives. Consequently, strategic planning has become an essential management tool for strengthening organizational resilience, improving financial performance, and ensuring the continuous delivery of quality services.

The Darangan Water Service Development Cooperative (DWSDC), located in Binangonan, Rizal, has been providing essential water services for more than five decades. Throughout its operation, the cooperative has expanded its services while maintaining its commitment to cooperative principles. Despite its financial growth, the cooperative continues to face challenges related to increasing administrative expenses, infrastructure development, operational efficiency, and environmental uncertainties. These challenges highlight the need for a comprehensive strategic planning framework that will guide decision-making, optimize resource utilization, and sustain long-term organizational performance.

Strategic planning enables organizations to establish clear goals, identify strengths and weaknesses, anticipate risks, and allocate resources efficiently. According to Attolba-Aquino and Castañeda (2025), sustainable cooperative management anchored on strategic planning significantly enhances operational effectiveness by aligning organizational resources with stakeholder expectations. Their study emphasized that cooperatives implementing structured strategic planning demonstrate greater financial stability, improved governance, and stronger organizational resilience.

Similarly, Ramizo et al. (2024) reported that strategic planning significantly improved operational efficiency and organizational performance among cooperatives in Naga City. Their findings revealed that clearly defined organizational objectives, systematic monitoring, and continuous performance evaluation contributed to better financial outcomes and service delivery. These findings support the importance of strategic planning as a mechanism for improving organizational sustainability.

On a broader perspective, Santini et al. (2021) emphasized that cooperatives contribute significantly to sustainable development by promoting inclusive economic growth, social equity, and community resilience. Their study highlighted that successful cooperatives integrate financial sustainability with social responsibility and environmental stewardship, allowing them to remain competitive while fulfilling their social mission.

Financial sustainability remains one of the primary determinants of organizational success. McKillop et al. (2020) explained that financial cooperatives continue to thrive because they effectively balance profitability with member welfare. Their study concluded that cooperatives exhibiting sound financial management, adequate capital formation, and effective governance are more capable of sustaining long-term operations and responding to economic uncertainties.

Furthermore, Chollet, Enjolras, and Saïsset (2025) identified financial indicators such as net surplus, return on equity (ROE), earnings per share (EPS), revenue growth, and member participation as comprehensive measures of cooperative sustainability. These indicators provide valuable insights into an organization's financial health while reflecting its ability to generate value for members and communities.

The Darangan Water Service Development Cooperative has consistently generated positive financial results and maintained growing members' equity over the past three years. Nevertheless, documentary analysis reveals increasing administrative expenditures and the need to diversify income sources to strengthen long-term sustainability. Benchmarking against neighboring cooperatives further indicates opportunities for improving operational efficiency, technological adoption, infrastructure development, and climate resilience.

Despite the growing body of literature on cooperative sustainability, limited studies have specifically examined strategic planning among community-based water service cooperatives in the Philippine setting using documentary financial analysis and benchmarking approaches. Most existing studies focus on agricultural, financial, or multipurpose cooperatives, leaving a gap in understanding how strategic planning contributes to the sustainability of water service cooperatives. Addressing this gap is essential because water cooperatives provide an indispensable public service that directly influences community health, economic productivity, and environmental sustainability.

Therefore, this study was undertaken to determine the sustainability of the Darangan Water Service Development Cooperative as the basis for developing a comprehensive Strategic Plan for 2026–2030. Specifically, the study evaluates the cooperative's financial performance, operational resilience, and sustainability indicators while benchmarking its performance with selected neighboring cooperatives. The findings are expected to provide practical recommendations that will strengthen organizational sustainability, improve service delivery, enhance community trust, and serve as a reference for other water service cooperatives pursuing long-term strategic development.

Material and methods

2.1 Research Design

This study employed a descriptive documentary research design utilizing benchmarking analysis to assess the sustainability of the Darangan Water Service Development Cooperative (DWSDC). The descriptive approach was appropriate because it systematically examined existing financial and operational conditions without manipulating any variables. Documentary analysis was conducted using audited financial statements, annual reports, strategic documents, and other official records covering the period 2022–2024. Benchmarking was likewise employed by comparing the cooperative's performance with selected neighboring cooperatives to identify best practices, operational strengths, and areas requiring improvement. The results of the analysis served as the basis for the development of the proposed Strategic Plan for 2026–2030.

2.2 Locale of the Study

The study was conducted at the Darangan Water Service Development Cooperative (DWSDC) located along National Road, Barangay Darangan, Binangonan, Rizal. The cooperative is one of the established community-based water service providers in the municipality, serving thousands of member-consumers through the provision of potable water and related services. To strengthen the benchmarking component of the study, financial and operational information from the Lunsad Multi-Purpose Cooperative, Palangoy Multi-Purpose Cooperative, and Calumpang Multi-Purpose Cooperative, all situated in Binangonan, Rizal, was also analyzed due to their comparable organizational structures and cooperative operations.

2.3 Respondents of the Study

Since the study utilized documentary analysis, it did not involve human respondents. Instead, the units of analysis consisted of official organizational documents obtained from the Darangan Water Service Development Cooperative and selected benchmark cooperatives. These included audited financial statements, statements of operations, statements of financial condition, annual business development plans, and other relevant organizational records covering the years 2022 to 2024. These documents provided the necessary information for evaluating the cooperative's financial sustainability and operational performance.

2.4 Sample and Sampling Procedure

The study employed purposive sampling in selecting documentary sources and benchmark cooperatives. Only complete, authenticated, and audited financial reports covering the years 2022 to 2024 were included in the analysis to ensure the reliability and consistency of the data. Likewise, neighboring cooperatives were purposively selected based on their Cooperative Development Authority (CDA) registration, similarity of operations, geographical proximity to the Darangan Water Service Development Cooperative, and availability of comparable financial statements and operational reports necessary for benchmarking.

2.5 Research Instrument

The primary research instrument used in the study was a Document Analysis Guide developed by the researcher based on recognized financial sustainability indicators for cooperatives. The guide facilitated the systematic collection, organization, and analysis of information on revenues, expenses, net surplus, assets, liabilities, equity, return on equity (ROE), earnings per share (EPS), revenue growth, and statutory fund allocations. A benchmarking matrix was likewise prepared to compare the financial performance, operational efficiency, diversification strategies, and sustainability practices of the Darangan Water Service Development Cooperative with those of the selected benchmark cooperatives.

2.6 Data Gathering Procedure

Prior to data collection, the researcher secured permission from the management of the Darangan Water Service Development Cooperative to access the necessary organizational documents. Audited financial statements, annual reports, strategic plans, and other pertinent records covering the years 2022 to 2024 were then collected and verified for completeness. Similar financial reports from the selected benchmark cooperatives were also obtained for comparative analysis. The gathered documents were carefully reviewed, organized according to the identified sustainability indicators, and encoded for analysis to ensure the accuracy and consistency of the findings.

2.7 Data Analysis Techniques

The collected data were analyzed using descriptive financial analysis and benchmarking techniques. Trend analysis was employed to examine changes in revenues, expenses, assets, liabilities, equity, and net surplus over the three-year period. Financial performance indicators such as Return on Equity (ROE), Earnings per Share (EPS), and Revenue Growth Rate were computed and interpreted to determine the cooperative's financial sustainability. Comparative benchmarking was likewise conducted to evaluate the cooperative's performance against selected neighboring cooperatives, while narrative analysis was used to explain the observed financial trends and formulate strategic recommendations for the proposed 2026–2030 Strategic Plan.

2.8 Ethical Considerations

The researcher strictly observed ethical standards throughout the conduct of the study by securing permission from the management of the Darangan Water Service Development Cooperative before accessing organizational records. All financial documents and reports were utilized solely for academic and research purposes, with confidentiality maintained for information not intended for public disclosure. The researcher ensured accuracy, honesty, objectivity, and proper acknowledgment of all documentary sources while presenting the findings without alteration or bias. Benchmarking information obtained from other cooperatives was likewise treated with confidentiality and used exclusively to support the comparative analysis and strategic planning objectives of the study..

Results and Discussion

3.1 Financial Performance of Darangan Water Service Development Cooperative

Table 1 presents the comparative financial performance of the Darangan Water Service Development Cooperative from 2022 to 2024. The results reveal a consistent increase in gross revenues, from ₱13.99 million in 2022 to ₱18.67 million in 2024, representing approximately 33.4% growth over the three-year period. Total expenses also increased from ₱11.19 million to ₱15.42 million, primarily due to higher administrative and operational costs. Despite rising expenditures, the cooperative maintained positive financial performance, with net surplus increasing from ₱2.81 million in 2022 to ₱3.25 million in 2024. These findings indicate that the cooperative possesses strong revenue-generating capability while maintaining profitability. However, the continuous increase in operating expenses highlights the importance of implementing cost-control measures to sustain long-term financial growth.

Table 1

Financial Performance of Darangan Water Service Development Cooperative

Year	Gross Revenues (₱)	Total Expenses (₱)	Net Surplus (₱)
2022	13,995,428.56	11,188,770.74	2,806,657.82
2023	16,258,251.20	13,167,108.50	3,091,142.70
2024	18,671,646.83	15,421,326.21	3,250,320.62

Source: Audited Financial Statements of Darangan Water Service Development Cooperative (2022–2024).

3.2 Financial Position of the Cooperative

Table 2 shows that total assets steadily increased from ₱51.00 million in 2022 to ₱62.14 million in 2024. Similarly, members' equity expanded by approximately 12.5%, reflecting continuous capital accumulation and organizational growth. Although liabilities also increased, the growth in assets and equity exceeded the increase in liabilities, suggesting that the cooperative remains financially stable and capable of supporting future expansion projects. The results demonstrate prudent financial management and continued member confidence in the cooperative.

Table 2

Financial Position of the Cooperative

Year	Total Assets (₱)	Total Liabilities (₱)	Total Equity (₱)
2022	51,004,637.25	18,023,386.42	32,981,250.83
2023	54,816,403.45	19,827,361.24	34,989,042.21
2024	62,140,286.55	25,027,180.85	37,113,105.70

3.3 Benchmarking Analysis

Among the four benchmarked cooperatives, the Darangan Water Service Development Cooperative recorded the highest gross revenues and net surplus in 2024. This indicates superior operational performance and stronger financial sustainability compared with neighboring cooperatives. While Palangoy Multi-Purpose Cooperative generated relatively high revenues, its very low net surplus suggests challenges in controlling operating costs. Meanwhile, Lunsad and Calumpang cooperatives demonstrated moderate financial performance but significantly lower revenues than Darangan. Overall, the benchmarking results indicate that DWSDC has stronger financial capacity, although it can further improve cost efficiency by adopting selected best practices from benchmark cooperatives.

Table 3

Comparison of Gross Revenues among Selected Cooperatives (2024)

Cooperative	Gross Revenues (₱)	Net Surplus (₱)
Darangan Water Service Development Cooperative	18,671,646.83	3,250,320.62
Lunsad Multi-Purpose Cooperative	7,148,764.08	1,267,952.02
Palangoy Multi-Purpose Cooperative	7,300,615.34	62,168.34
Calumpang Multi-Purpose Cooperative	3,653,234.37	155,721.68

Conclusions & Recommendations

Based on the findings of the study, the Darangan Water Service Development Cooperative demonstrated a generally strong and stable financial performance from 2022 to 2024. The cooperative consistently generated increasing gross revenues and net surplus, indicating effective service delivery and sustained demand for water and related services. In addition, total assets and members' equity showed continuous growth, reflecting strong financial stability and member confidence in the organization. However, the study also revealed that operational expenses, particularly administrative costs, increased steadily across the three-year period, which may pose a risk to long-term profitability if not properly managed. Furthermore, the cooperative remains heavily dependent on water operations as its primary income source, suggesting limited revenue diversification. Overall, while the cooperative is financially viable and resilient, there is a need for strategic improvements in cost management, income diversification, and operational efficiency to ensure long-term sustainability.

In light of the findings and conclusions, the study recommends that the Darangan Water Service Development Cooperative strengthen its cost management strategies by regularly reviewing and controlling administrative and operational expenses to maintain profitability. The cooperative should also pursue income diversification by expanding into related services such as water refilling stations, commercial leasing, and other community-based enterprises to reduce reliance on water operations alone. It is further recommended that the cooperative enhance its financial planning and monitoring systems through regular financial analysis using key indicators such as ROE, revenue growth rate, and surplus performance to support evidence-based decision-making. Additionally, investment in digitalization and operational automation is encouraged to improve efficiency, transparency, and service delivery. Finally, the cooperative should adopt the proposed

Strategic Plan for 2026–2030 as a guiding framework to strengthen financial sustainability, organizational resilience, and community development impact..

Compliance with ethical standards

The author declares no conflict of interest. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. This study was self-funded. The authors thank the participating respondents for their contributions

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