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Evaluation of the Bureau of Fire Protection Service in the Province of Misamis Oriental

Sam Laurence M. Velarde[1], Dr. Romae R. De Asis[1], Dr. Ferdinand Z. De Asis[1], Prof. Maria Krisia Fae D. Hernaez[1]

[1]Metro Dagupan Colleges, Pangasinan, Philippines

Email: samvelards.personal@gmail.com

ABSTRACT

This study evaluated the implementation of Bureau of Fire Protection (BFP) services in Misamis Oriental, Philippines, and identified resource-related challenges as a basis for developing a proposed action plan. A quantitative descriptive survey design was employed, involving 449 respondents comprising 25 fire marshals and 424 barangay captains selected through purposive sampling and total enumeration, respectively. Data were gathered using a validated four-point Likert-scale questionnaire and analyzed using weighted means and ranking. Results revealed that all four service areas were highly implemented, with fire prevention obtaining the highest rating (3.52), followed by fire investigation and intelligence (3.50), emergency medical and rescue services (3.46), and fire suppression (3.45). Human resource challenges ranked highest (3.24), followed by material (3.20) and financial resources (3.01). Major concerns included personnel shortages, insufficient specialized training, traffic congestion, inadequate fire hydrants, aging fire trucks, and delayed fund disbursement. The study concluded that favorable service implementation coexists with resource constraints that may compromise operational sustainability. Implementation of the proposed action plan, personnel augmentation, equipment modernization, continuing professional development, and stronger interagency coordination are recommended. The study's localized setting, perception-based assessments, descriptive design, and inconsistent reported respondent totals limit the interpretation and generalizability of findings. The proposed action plan provides an empirical framework for strengthening operational preparedness, resource management, and sustainable public safety services, supporting community resilience and institutional sustainability aligned with Sustainable Development Goals 3 (Good Health and Well-Being), 11 (Sustainable Cities and Communities), and 16 (Peace, Justice and Strong Institutions).

Keywords: *Community Resilience, Emergency Response, Fire Prevention, Fire Protection, Public Safety, Resource Management, Service Implementation*

1. INTRODUCTION

Fire protection is an essential public safety function that safeguards human lives, property, infrastructure, and the environment. Modern fire departments undertake multiple responsibilities, including fire prevention, fire suppression, fire investigation and intelligence, and emergency medical and rescue services. The effective delivery of these services requires competent personnel, adequate resources, functional equipment, strategic planning, and interagency coordination. Fire prevention emphasizes safety inspections, regulatory compliance, community education, and preparedness. Kurata et al. (2023) examined factors associated with fire prevention preparedness among Filipinos, highlighting the importance of understanding community safety behavior. Similarly, Delaliarte et al. (2024) established a significant relationship between fire safety awareness and practices, emphasizing the importance of continuing fire safety education. Fire suppression requires timely emergency response, operational readiness, and adequate firefighting resources. Mandalapu et al. (2024) emphasized the importance of evaluating fire vulnerability and accessibility to emergency facilities to inform targeted public safety interventions. Oñate (2022) likewise demonstrated the usefulness of geographical mapping and fire incident data in supporting fire prevention planning and decision-making in the Philippines. Fire investigation and intelligence involve systematic examination, evidence collection, documentation, and determination of fire origins and causes. Evans (2023) reviewed contemporary developments in forensic fire investigation, emphasizing scientific methods and investigative standards. Meanwhile, Hamilton et al. (2022) highlighted coordination among emergency medical teams, government agencies, and other stakeholders in disaster response. The World Health Organization (2025) further emphasized operational standards, communication systems, medical oversight, and appropriate clinical care in prehospital emergency services. In the Philippines, the Bureau of Fire Protection (BFP) performs these responsibilities through regulatory enforcement, community-based prevention, firefighting operations, investigation, and emergency response. The Department of the Interior and Local Government (2023) emphasizes personnel capability development, modernization of equipment and facilities, and coordinated emergency operations as strategic priorities. Despite these initiatives, resource constraints and operational challenges remain important considerations in ensuring effective public safety services. Within this context, the present study evaluated the implementation of BFP services in Misamis Oriental and identified challenges concerning human, material, and financial resources. Its findings served as the basis for a proposed action plan intended to strengthen operational capabilities, improve service delivery, and promote community safety.

Research Problem

Despite continuing efforts to strengthen fire protection services, operational challenges may affect the capacity of fire departments to respond effectively to community needs. Limited personnel, inadequate equipment, financial constraints, congested transportation routes, and insufficient specialized training may compromise the delivery of fire prevention, suppression, investigation, and emergency rescue services. The Bureau of Fire Protection (2025) reported 22,294 fire incidents nationwide in 2024, of which approximately 93% were responded to by BFP operating units. Factors affecting response included geographical remoteness, delayed incident reporting, and inaccessible roads. Furthermore, the Department of Budget and Management (2024) allocated ₱2.880 billion to support BFP modernization through the acquisition of fire trucks, rescue vehicles, and ambulances, demonstrating the continuing importance of resource development in public safety operations. In Northern Mindanao, the BFP recorded 1,404 fire incidents in 2025, representing a nearly 30% decrease from the 2,000 incidents recorded in 2024 (Maandig, 2026). Despite this improvement, evaluating the implementation of fire protection services remains necessary to identify operational strengths and areas requiring intervention. Previous Philippine studies have examined fire safety awareness, community preparedness, and

firefighter competencies. Kurata et al. (2023) investigated factors associated with fire prevention preparedness, while Delaliarte et al. (2024) examined fire safety awareness and practices. Abijay et al. (2024) assessed the effectiveness of community fire education and prevention programs, identifying concerns involving equipment, experience, and community participation. Meanwhile, Jose (2025) investigated BFP personnel competencies and their relationship with fire incident outcomes in the National Capital Region. While these studies provide valuable insights into fire safety and emergency response, the present investigation addresses the need for a localized and comprehensive assessment of the four major BFP service areas alongside human, material, and financial resource challenges in Misamis Oriental. Addressing these concerns provides an empirical foundation for developing a context-responsive action plan that strengthens operational efficiency, community preparedness, and public safety service delivery.

Assumptions of the Study

The study was anchored on the assumption that effective fire protection services require systematic planning, competent personnel, adequate material and financial resources, and coordination between the Bureau of Fire Protection and local communities. The implementation of fire prevention, suppression, investigation and intelligence, and emergency medical and rescue services may vary according to operational conditions and available institutional resources. It was further assumed that BFP personnel and barangay captains, through their direct involvement in emergency operations and community safety activities, could provide relevant assessments of service implementation and associated challenges. The identification of operational strengths and resource-related concerns was expected to provide an empirical basis for developing an appropriate action plan to improve BFP services in Misamis Oriental.

Objectives of the Study

The study generally aimed to evaluate the implementation of services provided by the Bureau of Fire Protection in the Province of Misamis Oriental and identify challenges affecting their delivery to local communities. Specifically, it sought to determine the level of implementation of BFP services in terms of fire prevention, fire suppression, fire investigation and intelligence, and emergency medical and rescue services. It also aimed to identify challenges encountered in service delivery concerning human, material, and financial resources. Finally, the study sought to develop a proposed action plan to strengthen BFP operational capabilities, enhance service implementation, and improve community-based interaction between fire protection personnel and local stakeholders.

Theoretical or Conceptual Basis

The study is anchored on three complementary theoretical perspectives identified in the original manuscript: Preventive Theory, Management Theory, and Theory of Service. These perspectives collectively explain the importance of preventive strategies, organizational management, and effective public service delivery in fire protection operations. Preventive Theory emphasizes proactive measures, community preparedness, and institutional competence in minimizing fire risks. Kurata et al. (2023) highlighted the importance of understanding factors associated with fire preparedness, while Delaliarte et al. (2024) emphasized the relationship between fire safety awareness and preventive practices. Oñate (2022) further demonstrated the relevance of geographical mapping and incident analysis in supporting risk-informed fire prevention planning. Management Theory emphasizes organizational planning, leadership, coordination, resource allocation, and monitoring in achieving institutional objectives. The United Nations Office for Disaster Risk Reduction (2022) emphasized coordinated governance and effective resource management in strengthening disaster resilience. Similarly, the Department of the Interior and Local Government's strategic plan supports BFP modernization, personnel capability development, regulatory enforcement, and coordinated emergency operations. The Theory of

Service emphasizes the consistent, responsive, and effective delivery of services to intended beneficiaries. Hamilton et al. (2022) highlighted interagency coordination in disaster response, while the World Health Organization (2025) emphasized operational standards, communication, and quality emergency medical services. These principles support the assessment of BFP service implementation from the perspectives of fire protection personnel and community representatives. Integrating these perspectives, the researcher proposed the Theory of Effective Operation as a conceptual synthesis emphasizing that fire protection effectiveness depends on operational execution, strategic planning, resource availability, and program implementation. This synthesis is operationalized through the Input–Process–Output (IPO) framework. The inputs comprise the four BFP service areas and challenges involving human, material, and financial resources. The process involves survey administration, data gathering, statistical analysis, and interpretation, while the output is a proposed action plan for strengthening BFP services and community-based coordination.

The study primarily aligns with SDG 11 – Sustainable Cities and Communities, particularly Targets 11.5 and 11.b, through its emphasis on fire risk reduction, disaster preparedness, emergency response, and community resilience. Strengthening fire protection services may help minimize human and economic losses associated with fire incidents while supporting safer and more resilient communities. The study also supports SDG 3 – Good Health and Well-Being through its assessment of emergency medical and rescue services, which are essential for timely medical intervention and the protection of human life. Furthermore, it contributes to SDG 16 – Peace, Justice and Strong Institutions, particularly Target 16.6, through its emphasis on effective public institutions, resource management, operational accountability, and responsive public safety services. These directions are consistent with the sustainable development priorities identified by the United Nations (2025). From a sustainability perspective, the study contributes to community, institutional, socio-economic, and public health sustainability. The proposed action plan seeks to strengthen fire prevention, operational preparedness, resource utilization, and collaboration between the BFP and local communities. These measures may contribute to protecting lives, preserving property and infrastructure, minimizing economic disruptions, and sustaining essential public safety services. These alignments represent potential contributions rather than directly measured SDG outcomes.

2. METHODOLOGY

Research Design

The study employed a quantitative descriptive survey research design to evaluate the implementation of BFP services and identify challenges encountered in their delivery. According to Creswell and Creswell (2023), quantitative research generates objective findings expressed through numerical data and statistical analysis. The descriptive approach facilitated the assessment of fire prevention, fire suppression, fire investigation and intelligence, and emergency medical and rescue services, including challenges related to human, material, and financial resources. The findings served as the basis for developing a proposed action plan to improve BFP services.

Research Locale or Study Setting

The study was conducted in the Province of Misamis Oriental, Philippines, covering 23 municipalities, two cities, and 424 barangays. The participating fire stations and barangays provided the setting for evaluating fire protection services, emergency response operations, and resource-related challenges. The locale was selected to obtain relevant information from BFP personnel and community officials with direct experience in fire protection and emergency response activities.

Participants or Data Sources

The study involved 449 respondents comprising 25 BFP fire marshals and 424 barangay captains in Misamis Oriental. Purposive sampling was employed in selecting fire marshals based on their direct involvement, operational knowledge, and experience in fire protection services. Stratton (2023) describes purposive sampling as a technique involving the deliberate selection of participants based on established criteria. Total enumeration was employed for barangay captains to include the entire identified population. According to the Stratton (2023), total enumeration is applicable when the population is manageable and clearly defined. Primary data were obtained through survey questionnaires, while secondary information was gathered from journal articles, books, online resources, and previous research studies.

Research Instruments or Materials

The study utilized a researcher-developed survey questionnaire consisting of two parts. The first part assessed the level of implementation of BFP services in four areas: fire prevention, fire suppression, fire investigation and intelligence, and emergency medical and rescue services. The second part identified challenges encountered in service delivery concerning human, material, and financial resources. Both sections employed a four-point Likert scale. The questionnaire underwent validation with the assistance of personnel from the Misamis Oriental Provincial Fire Office to ensure the relevance and alignment of its indicators with the research objectives.

Data Gathering Procedure

The researcher conducted preliminary coordination and courtesy visits with relevant BFP personnel and barangay officials. Formal permission was secured from the Provincial Fire Marshal and the President of the Association of Barangay Captains of Misamis Oriental. Following questionnaire validation and approval, the instruments were distributed to the identified respondents together with informed consent forms. The research objectives were explained in the respondents' native language, and sufficient time was provided for questionnaire completion. The accomplished questionnaires were subsequently collected, tabulated, and subjected to statistical analysis with the assistance of a qualified statistician.

Data Analysis

Weighted means, average weighted means, and ranking were employed to analyze the collected data. The implementation of BFP services was assessed using a four-point scale with the following interpretations: 3.25–4.00 (Highly Implemented), 2.51–3.24 (Moderately Implemented), 1.75–2.49 (Barely Implemented), and 1.00–1.74 (Not Implemented). Resource-related challenges were interpreted using the corresponding ranges as Strongly Agree, Agree, Disagree, and Strongly Disagree, respectively. Ranking was employed to determine the relative importance of the indicators and identified challenges. According to SagePub (2022), ranking involves assigning relative importance to items or attributes of interest. The findings were subsequently utilized in developing the proposed action plan.

Ethical Consideration

The researcher secured authorization from the appropriate BFP and barangay authorities before conducting the study. Respondents were informed of the research objectives and the nature of their participation through explanations provided in their native language. Informed consent was obtained before questionnaire administration, and respondents were given sufficient time to accomplish the instruments. The collected information was analyzed and interpreted for the stated research objectives.

3. RESULTS AND DISCUSSION

3.1 Level of Implementation of Bureau of Fire Protection Services

3.1.1 Fire Prevention

Fire prevention was rated Highly Implemented, obtaining the highest average weighted mean (AWM = 3.52) among the four service areas. Conducting fire safety seminars and drills and evaluating building plans received the highest weighted means (WM = 3.63 each), followed by coordination with schools and nongovernmental organizations (WM = 3.41). Building inspections before issuing fire safety certificates received the lowest rating (WM = 3.40), although still interpreted as Highly Implemented. The findings indicate that fire safety education and building plan evaluation are established strengths of BFP Misamis Oriental. These findings support Preventive Theory, which emphasizes proactive community-based strategies. Kurata et al. (2023) highlighted the importance of understanding factors associated with fire prevention preparedness, while Delaliarte et al. (2024) emphasized fire safety awareness and preventive practices. Espartero and Cawi (2026) further identified community participation, local leadership, manpower, and budget availability as important considerations in implementing community-based fire prevention programs. The comparatively lower rating for building inspections underscores the importance of strengthening regulatory enforcement and inspection follow-through.

3.1.2 Fire Suppression

Fire suppression was rated Highly Implemented (AWM = 3.45), although it obtained the lowest overall rating among the four service areas. Checking fire extinguishers and suppression tools received the highest rating (WM = 3.55), followed by immediate response to fire incidents (WM = 3.53) and regular monitoring of firefighting equipment (WM = 3.40). Conducting pre-fire planning activities obtained the lowest rating (WM = 3.34). The findings suggest that fire suppression remains a priority service requiring adequate equipment, operational preparedness, and efficient response planning. Zhu et al. (2023) demonstrated that traffic congestion and inadequate transportation infrastructure can reduce effective fire service coverage. Similarly, Oñate (2022) emphasized geographical mapping and fire incident analysis in supporting preventive planning, while Mandalapu et al. (2024) highlighted the importance of evaluating accessibility to emergency facilities. Consistent with the proposed Theory of Effective Operation, these findings support strengthening pre-fire planning, equipment readiness, and response-route coordination.

3.1.3 Fire Investigation and Intelligence

Fire investigation and intelligence were rated Highly Implemented (AWM = 3.50), ranking second among the four service areas. Filing cases against perpetrators of intentional fires obtained the highest weighted mean (WM = 3.62), followed by collecting physical evidence (WM = 3.48) and investigating fire origins (WM = 3.47). Reporting and recording incident information received the lowest rating (WM = 3.42). The findings indicate that respondents positively assessed the BFP's investigative and enforcement responsibilities. Nevertheless, concerns regarding qualified investigators, investigative equipment, and incident documentation warrant further attention. Evans (2023) emphasized scientific approaches and investigative standards in contemporary forensic fire investigation. Furthermore, Oñate (2022) demonstrated the importance of fire incident information in geographical mapping and risk analysis. These findings highlight the need for specialized investigator training, adequate investigative resources, and standardized incident documentation to support investigation, prevention, and operational planning.

3.1.4 Emergency Medical and Rescue Services

Emergency medical and rescue services were rated Highly Implemented (AWM = 3.46). Providing appropriate and timely on-scene medical interventions received the highest rating (WM = 3.51), followed by transporting patients to the nearest medical facility (WM = 3.50) and transferring patients into suitable emergency vehicles (WM = 3.45). Providing appropriate medical care throughout transportation received the lowest rating (WM = 3.39). The findings indicate that immediate medical intervention is an established strength, although continuity of patient care during transportation requires further improvement. Hamilton et al. (2022) emphasized interagency coordination in emergency medical response, while Geronimo (2025) identified knowledge, training, and experience as relevant factors in the disaster preparedness of BFP emergency medical personnel. The World Health Organization (2025) likewise emphasized operational standards, appropriate equipment, communication, and clinical care in prehospital emergency services. Consistent with the Theory of Service, these findings support continuing personnel training, adequately equipped emergency vehicles, and coordination with medical facilities.

3.1.5 Overall Implementation of BFP Services

All four BFP service areas were rated Highly Implemented. Fire prevention obtained the highest average weighted mean (AWM = 3.52), followed by fire investigation and intelligence (AWM = 3.50), emergency medical and rescue services (AWM = 3.46), and fire suppression (AWM = 3.45). These descriptive findings indicate favorable assessments of BFP service implementation among the respondents. The findings demonstrate that BFP Misamis Oriental generally performs its major service responsibilities despite existing operational and resource-related challenges. Abijay et al. (2024) emphasized the importance of community fire education and prevention programs, while Espartero and Cawi (2026) highlighted the role of local participation and institutional support in sustaining program implementation. Nevertheless, high perceived implementation does not necessarily establish operational effectiveness or regulatory compliance. Continuing evaluation remains necessary, particularly in fire suppression, specialized training, equipment modernization, and emergency response preparedness.

3.2 Challenges Encountered in the Delivery of BFP Services

3.2.1 Human Resources

Human resource challenges obtained the highest average weighted mean (AWM = 3.24), interpreted as Agree. Respondents strongly agreed on personnel shortages (WM = 3.47), response delays due to traffic congestion (WM = 3.41), lack of qualified fire investigators (WM = 3.34), insufficient refresher training (WM = 3.28), and deficiencies in personnel training and management (WM = 3.25). Personnel inexperience received the lowest rating (WM = 3.08). The findings indicate that personnel adequacy and specialized training constitute major operational concerns. Espartero and Cawi (2026) identified limited manpower as a challenge affecting community-based fire prevention programs, while Geronimo (2025) emphasized continuing training and personnel experience in emergency preparedness. Zhu et al. (2023) further demonstrated how traffic congestion constrains fire service coverage. These findings support Management Theory, emphasizing personnel development, effective communication, strategic coordination, and collaboration with local government units to strengthen emergency response operations.

3.2.2 Material Resources

Material resource challenges obtained an average weighted mean of 3.20, interpreted as Agree. Respondents strongly agreed that insufficient fire hydrants (WM = 3.46), old or dilapidated fire trucks (WM = 3.45), and limited utilization of advanced firefighting technology (WM = 3.29) were major concerns. Other challenges included damaged fire hoses, inadequate vehicle maintenance, insufficient protective uniforms, investigative equipment, communication devices, and gender-separated facilities. Outdated firefighting equipment obtained the lowest rating (WM = 3.04). The findings highlight the importance of adequate water supply infrastructure, reliable firefighting vehicles, modern equipment, and personnel protection. Selech et al. (2024) emphasized reliability, availability, and maintenance considerations in managing firefighting and rescue vehicles. Similarly, the Department of Budget and Management (2024) recognized equipment modernization as a priority in strengthening BFP emergency response capabilities. These findings support equipment condition assessments, preventive maintenance, hydrant installation, technological modernization, and procurement of appropriate protective and investigative equipment.

3.2.3 Financial Resources

Financial resource challenges obtained the lowest average weighted mean among the three resource areas (AWM = 3.01), interpreted as Agree. Delayed disbursement of the 20% local government unit (LGU) share from Fire Code fee collections received the highest rating (WM = 3.18), followed by slow utilization of the same funds (WM = 3.16), insufficient equipment procurement budgets (WM = 3.14), and inadequate vehicle maintenance budgets (WM = 3.08). Insufficient funding for office supplies received the lowest rating (WM = 2.85). The findings suggest that financial challenges concern both resource adequacy and the timely allocation and utilization of available funds. Espartero and Cawi (2026) identified budget limitations as barriers to implementing community-based fire prevention programs. Furthermore, the Department of Budget and Management (2023, 2024) emphasized financial appropriations for BFP modernization, equipment acquisition, and facility improvement. Consistent with Management Theory, these findings underscore the importance of timely fund disbursement, needs-based budgeting, effective resource utilization, and stronger financial coordination between the BFP and LGUs.

3.2.4 Overall Challenges in BFP Service Delivery

Respondents acknowledged challenges across all three resource areas. Human resources ranked highest (AWM = 3.24), followed by material resources (AWM = 3.20) and financial resources (AWM = 3.01), all interpreted as Agree. Despite these challenges, all four BFP service areas remained rated Highly Implemented. The findings indicate that favorable service implementation ratings coexist with personnel shortages, inadequate material resources, and financial constraints. Espartero and Cawi (2026) similarly documented the persistence of resource-related challenges despite continuing community-based fire prevention program implementation. Selech et al. (2024) further emphasized the importance of reliable and adequately maintained emergency vehicles in sustaining operational readiness. These findings reinforce the need for coordinated resource management, personnel development, and equipment modernization. However, the descriptive research design did not statistically establish the magnitude or causal effects of these challenges on service implementation.

3.3 Proposed Plan of Action to Improve BFP Services

Based on the findings, a proposed action plan was developed to address personnel shortages, specialized training deficiencies, response delays, insufficient fire hydrants, aging fire trucks, inadequate protective equipment, and financial resource constraints. The plan also addresses comparatively lower-rated service indicators, including pre-fire planning, building inspections, incident documentation, and medical care during patient transportation. Proposed interventions include personnel augmentation, continuing competency development, route management, hydrant mapping and installation, preventive equipment maintenance, needs-based budgeting, timely utilization of the 20% LGU share, standardized incident recording, and strengthened emergency medical coordination. The plan identifies responsible offices, implementation periods, potential funding sources, and success indicators. Consistent with the proposed Theory of Effective Operation, the action plan integrates strategic planning, resource management, operational preparedness, and interagency coordination to strengthen fire protection services. Espartero and Cawi (2026) emphasized community participation and institutional support, while Zhu et al. (2023) highlighted transportation accessibility in emergency response planning. Selech et al. (2024) reinforced the importance of equipment reliability and maintenance, while Geronimo (2025) emphasized continuing personnel training and emergency preparedness. The Department of Budget and Management (2023, 2024) likewise recognized resource modernization as a strategic priority. Collectively, these perspectives support a comprehensive approach to strengthening BFP service implementation, community safety, and institutional sustainability. The proposed action plan remains subject to implementation and evaluation.

4. CONCLUSIONS AND RECOMMENDATIONS

The study concluded that the Bureau of Fire Protection (BFP) in Misamis Oriental highly implemented its four major services: fire prevention, fire suppression, fire investigation and intelligence, and emergency medical and rescue services. Fire prevention emerged as the strongest service area, while fire suppression received the comparatively lowest assessment. Despite favorable implementation ratings, challenges persisted across human, material, and financial resources, with human resources identified as the most pressing concern. Personnel shortages, insufficient specialized training, traffic congestion, inadequate fire hydrants, aging fire trucks, and delayed disbursement and utilization of local government funds emerged as major operational challenges. These findings indicate that favorable service implementation coexists with resource constraints that may compromise long-term operational sustainability. Addressing these concerns requires coordinated efforts among the BFP, local government units, water districts, and community stakeholders. The proposed action plan provides an empirical foundation for strengthening operational preparedness, resource management, institutional coordination, and sustainable public safety service delivery.

The BFP Misamis Oriental Provincial Office should consider implementing the proposed action plan and systematically monitoring its success indicators. Personnel augmentation should prioritize stations with substantial staffing deficiencies and high fire incident frequency. Continuing professional development should include specialized fire investigation, operational communication, firefighting techniques, emergency medical care, and physical fitness. The BFP should conduct equipment audits, institutionalize preventive maintenance, and prioritize the replacement of aging fire trucks and inadequate firefighting equipment. Local government units should facilitate the timely release and utilization of the 20% LGU share from Fire Code fee collections, provide supplemental financial assistance, and strengthen emergency traffic management. Collaboration with water districts should prioritize hydrant installation and rehabilitation in high-risk barangays. Barangay officials should strengthen community fire

brigades, fire safety awareness campaigns, and emergency preparedness initiatives. Furthermore, the BFP should sustain its fire prevention programs, streamline inspection procedures, improve incident documentation, and strengthen coordination with medical facilities.

The study was geographically limited to Misamis Oriental and involved BFP fire marshals and barangay captains, restricting the generalizability of findings to other locations and stakeholder groups. Its quantitative descriptive survey design relied on respondents' assessments rather than objective operational performance measures. Consequently, the statistical relationship and causal effects of resource-related challenges on service implementation were not established. The manuscript also reports inconsistent respondent totals of 449 and 445, which require verification before publication. Future studies may employ inferential statistics, compare municipal and respondent-group assessments, include residents and business owners, and incorporate objective indicators such as recorded emergency response times and operational performance records.

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