



# Capability of Bureau of Fire Protection Personnel in Responding to Emergencies in the Province of Sorsogon

Michaela Navarro Longa<sup>1</sup> and Emma S. Perena<sup>2</sup>

<sup>1,2</sup>Sorsogon State University, Graduate School, Sorsogon City

**Abstract**— The study assessed the capabilities of Bureau of Fire Protection (BFP) personnel in responding to emergency in Sorsogon Province along with firefighting operations, emergency medical services (EMS), special operations, and disaster management. It employed a descriptive method involving active in service BFP personnel assigned in the province of Sorsogon. Sample size was determined by using slovin's formula. Data were gathered using a questionnaire checklist based on BFP operational manuals, training manuals and Oplan Panghalasa Implan. A variety of scales and statistical analysis are used to address the research questions such as frequency, percentage.

Findings indicated that BFP personnel in Sorsogon Province demonstrated much capabilities across all variables. Moreover, BFP personnel encounters challenges in emergency response, such as manpower shortages, lack of modern medical equipment, and communication disruptions.

Recommendations were to implement enhanced training programs with considerations on the BFP personnel's demographic profiles, access to support services like counseling and stress management workshops, and resource allocation for manpower, equipment, and training facilities. The study also proposed the implementation of a project proposal to enhance emergency response capabilities and ensure public safety in the province.

**Keywords**— BFP, Capability, Emergency Response, Firefighting Operations, Emergency Medical Services, Special Operations, Disaster Management.

## INTRODUCTION

Firefighting plays a critical role due to its importance in protecting lives, property, and the environment. Having an established and capable fire department is vital for effective emergency response, including rapid and fire suppression, specialized training, hazardous materials response, technical rescue operations, incident command and coordination, prevention and education efforts. These capabilities allow fire departments to fulfill their mission of protecting lives, property, and the environment during emergencies.

Maintaining Firefighting Capacity and Efficient Systems need to be created to protect residents of Japan, there are concerns about the decline in the firefighting systems of local governments. Some small fire departments have not been able to respond to large-scale disasters. Even when staffers picked up the phone and received requests for rescue, there were no firefighters available to be dispatched.

All they could do was to advise people to "please evacuate to a safer place, if at all possible. "This situation shows that with limited staff and equipment, personnel will not be able to respond sufficiently to large-scale disasters.



About 60% of the nation's fire departments serve populations of less than 100,000 people. Population declines will likely make it even harder to secure human resources and budgetary funding, (The Yomiuri Shimbun, 2023)

According to data from the National Fire Protection Agency, US, there were over 370,000 career firefighters in 2018, in addition to the over 745,000 volunteer firefighters who serve smaller communities (Chron Contributor, 2021). Over 91 percent of paid firefighters work for local governments, but they are also employed at the state and federal levels, reports the U.S. Bureau of Labor Statistics (BLS). In addition, some paid firefighters work at chemical plants, airports and industrial sites.

In the Philippines, the Republic Act No. 6975 (Local Government Code of 1991) established the BFP as a government agency under the Department of the Interior and Local Government (DILG). BFP's mandate, powers, and functions, are fire prevention, suppression, investigation, and enforcement of fire-related laws. Its primary mandate is to prevent and suppress destructive fires.

The BFP's capabilities extend beyond fire incidents to include various emergencies and disasters. Republic Act No. 10121 (Philippine Disaster Risk Reduction and Management Act of 2010), this law recognizes the BFP as a key player in disaster risk reduction and management. It mandates the BFP to participate in disaster risk reduction planning, emergency response, and coordination efforts alongside other government agencies.

Under Republic Act No. 9263 (Bureau of Fire Protection and Philippine Firefighters Act Of 2004, An Act Providing for The Professionalization of The Bureau of Fire Protection (BFP) And the Bureau of Jail Management and Penology (BJMP), Amending Certain Provisions of Republic Act No. 6975, it strengthened and expanded the BFP's capabilities. It provides the professionalization of the firefighting service, establishing the rank and career progression of firefighters, and enhancing their training and education.

The local government has direct responsibility for the safety of the people, knowledge of the situation and accompanying resource requirements, and proximity to both event and resources. It has its emergency services department that have the capability of responding to emergencies twenty-four hours a day. They include law enforcement, fire/emergency medical services, and public works.

In Region V (Bicol Region), out of the 32,892 BFP personnel nationwide, 2,267 are deployed. In Sorsogon province, there are 365 personnel distributed based on equipment availability and municipality classification. (Regional Office, R5). Sorsogon Province population as determined by the 2020 Census was 828,655. This represented 13.62% of the total population of the Bicol Region, 1.33% of the overall population of the Luzon Island group, or 0.76% of the entire population of the Philippines.

The component city of Sorsogon leads with 6 firetrucks and 70 personnel, while first-class municipalities like Bulan and Pilar have 3 firetrucks each, with differing personnel numbers.

Gubat and Irosin, second-class municipalities, also have their own complement of equipment and personnel. Third to fifth-class municipalities have personnel numbers ranging from 12 to 20, and firetrucks allocated accordingly. Additionally, the Sorsogon Provincial Marshal's Office provides coordination and support with its 26 personnel.



The modernization efforts of the BFP depend heavily on LGU funding, with national support focused on training, infrastructure, and salaries. However, challenges persist due to limited personnel numbers and outdated equipment. As such BFP manpower in the province are burdened with exhaustion and multiplicity of responsibilities. However, despite of these, the bureau's goal remains its commitment to deliver efficient services despite inadequacies.

Hence, understanding the capability of the Bureau of Fire Protection personnel in responding to emergencies is essential to maintain and adhere the commitment of the bureau to protect the lives and property during emergencies and disasters in the Province of Sorsogon. Assessing the BFP personnel capabilities foster a culture of continuous learning and improvement, enabling them to adapt to developing threats and modern technologies. This premise motivated the researcher to conduct the study.

### **OBJECTIVES OF THE STUDY**

The study determined the capability of the Bureau of Fire Protection Personnel in the Province of Sorsogon in responding to emergencies FY 2024. Specifically, it aimed to answer the following questions;1. The profile of the BFP personnel in the Province of Sorsogon in terms of age, sex, civil status, educational attainment, rank, length of service and training attended.2.

Extent of capability of BFP Personnel in the Province of Sorsogon in responding to emergencies in terms of Fire Fighting Operations, Emergency Medical Services, Special Operations and Disaster Management.3 Challenges encountered by the BFP Personnel in enhancing their capabilities in responding to emergencies.4 What could be proposed based from the result of the study.

### **METHODS OF THE STUDY**

The researchers utilized a descriptive method of research. The respondents were the active in service BFP personnel with the rank of Fire Officer 1 to Senior Fire officer 4 in the Province of Sorsogon. A survey questionnaire and unstructured interview were used by the researcher to gather the data. The data gathered were tabulated and analyzed using the appropriate statistical tools and treatment such as, frequency-percentage, weighted mean, chi-square and rank sum.

The data was obtained from the 14 municipalities, 1 component city and 1 provincial office of the Bureau of Fire Protection in the Province of Sorsogon. The study made used of the slovin's formula for proportional allocation of the respondents. Random sampling is then used by the researcher during the conduct of survey where responders are selected based on the availability at the given time and willingness to participate in the research.

The instrument used in gathering data was a survey questionnaire composed of four parts. Part I dealt on the socio-demographic profile of the respondents such as age, sex, civil status, rank, length of service, training attended and educational attainment. Part II deals with the extent of capability of BFP Sorsogon along Fire Fighting Operations, Medical Services, Special Operations and Disaster Management.

Part III deals with challenges encountered by the BFP Personnel in enhancing their capabilities in responding to emergencies. Unstructured interview was utilized to guide researcher in gathering date along the challenges



encountered by the BFP personnel in the province of Sorsogon. The questionnaire was adapted by the researcher based on the BFP Operations Manual, 2015, Fire Basic Training Manual, and The Oplan Panghalasa Implan. A dry run was also conducted by the researcher of which 10 participated from Legazpi Fire Station, Albay. The dry run concluded that the last part of the instrument, which is the challenges encountered, gain confusion on the instructions given so the need to revise the said directions was done in to a more comprehensive instruction.

Prior to data collection, the researcher secured necessary permissions from the Dean of the Graduate School, to ensure compliance with standard protocol. Subsequently, formal authorization was sought from the Provincial Director of BFP Sorsogon, emphasizing the conduct of research with utmost privacy and purely for educational purposes. Upon receiving clearance from the Provincial Fire Marshal's office, the researcher distributed survey questionnaires to each municipality from March 6-15, 2024.

During this process, the researcher provided assistance to available respondents in each fire station as needed for data collection and ensured the accuracy, completeness and 100 % retrieval of responses.

The researcher administered the unstructured interviews from March 18-19, 2024 to different municipalities in the Province of Sorsogon. Generated data based on their answers gained supports and justifications with the challenges they encountered along the identified variables.

## RESULTS

Based on the analysis and interpretation of the data, the following findings were revealed:

1. The majority of BFP personnel in Sorsogon Province are young, with most aged 30-34. Male personnel lead at 70%, with 30% females. Education levels are primarily bachelor's degrees (96%), and Fire Officer 1 (FO1) is the most common rank (40%). Most personnel have 6-10 years of service (39%) and have participated in training or seminars (96%).
2. BFP Sorsogon personnel established much capability levels in firefighting operations, with a weighted mean of 4.20. They excel in pre-fire planning and fire ground size-up, indicating effective planning and response. In Emergency Medical Services (EMS), their capability level is also much capable with an average weighted mean of 4.05. However, areas such as providing proper information and clear instructions may require further training or focus. In special operations, they exhibit a much capability level with a weighted mean of 3.56, showing competence in assessments and rescue operations. In disaster management, their capability level much capable with a weighted mean of 3.61, showing proficiency in certain areas like establishing incident command posts but requiring improvement in others, like following national directives and augmenting relief operations.
3. The challenges identified are a deficiency in personnel training and management for firefighting operations. For the Emergency Medical Services, the most significant issue is the lack of available ambulances. The challenge for Special operation is that firefighters do not undergo upgrading programs for specialized incidents such as HAZMAT or CBRNE. The rank 1 identified is inadequate or disrupted communication equipment in Disaster Management.



4. A proposed project proposal was developed to enhance the capability of the BFP Sorsogon Province Personnel in Responding to emergencies.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the researcher arrived at the following conclusion.

1. The BFP Sorsogon personnel profile reveals mainly young workforce, with a majority within the age range of 25-34. Male personnel outnumber females significantly, and most, mainly holding the rank of Fire Officer 1 (FO1).
2. The Bureau of Fire Protection (BFP) in the Province of Sorsogon reveals a much capable level of capability in responding to various emergencies, including firefighting operations, emergency medical services (EMS), special operations, and disaster management personnel exhibit consistent and effective performance, with a focus on pre-fire planning and administering fire ground size-up.
3. The Bureau of Fire Protection (BFP) personnel in Sorsogon face challenges which include shortages in manpower, lack of training and modern equipment, inadequate ambulance availability, communication disruptions, and stress during disaster response.
4. Proposed Action Plan to the concerned authorities for enhancement of capability of BFP personnel in the province of Sorsogon in responding to emergencies along firefighting operations, emergency medical services, special operations and disaster management.

Based on the conclusions drawn from the study of the capability of Bureau of Fire Protection personnel in the Province of Sorsogon in responding to emergencies, the following recommendations;

1. BFP may implement gender-specific duties which may include recruitment targeted in increasing female and providing support and mentorship programs for female personnel. They may offer specialized training programs, leadership development courses, and pathways for promotion within the organization regardless of their profile.
2. Enhanced Training Programs for BFP personnel covering firefighting operations, EMS, special operations, and disaster management. These programs should focus on skill development, equipment proficiency, and stress management during disaster response with sufficient allocation of resources and fund for equipment maintenance, modernization, and development.
3. BFP Sorsogon may provide access to counseling services, stress management workshops, and peer support networks to help personnel cope with the demands of their work and resource allocation for manpower, equipment, and training facilities.
4. The BFP Sorsogon may develop training programs that take into account the varying capabilities influenced by demographic profile such as age, rank, and length of service. They should assign roles and responsibilities that align with individual strengths and experiences, maximizing effectiveness during emergency operations.
5. Submission of the proposed Action Plan to the concerned authorities for enhancement of the Capability of BFP Personnel in Responding to Emergencies.

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