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## **BUILDING COHESION: MUNICIPAL DISASTER RISK REDUCTION MANAGEMENT COUNCIL AND THE COMMUNITY**

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### **KeyWords:**

*Cohesion, Community, Cooperation, Disaster response, MDRRMC, Preparedness, Risk communication, and Vulnerability*

### **ABSTRACT**

This study aims to build cohesion between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the community through investigating the factors that hinder cooperation between them during disaster operations and the actions taken by the MDRRMC to address these challenges.

Using a qualitative case study design, the research gathered data through semi-structured interviews with seven MDRRMC personnel and seven community members in Brgy. Ablan, Burgos, Ilocos Norte. Purposeful sampling was employed to select participants who met specific criteria, such as residing in disaster-prone areas and having experienced natural disasters. The data gathered were analyzed and interpreted using thematic analysis.

This study revealed key factors that hinder such cooperation, including poor communication, prioritization of property over safety, and disregard for disseminated information. In response, the MDRRMC implemented actions such as integrated response measures, compulsory relocation, regulatory adherence, and enhanced risk communication strategies. Participants also shared their experiences of frustration and vulnerability during disasters, highlighting gaps in coordination and communication between the MDRRMC and the community.

The study concludes that the lack of cohesive efforts significantly hinders collaboration, leading to delays and inefficiencies in disaster response. Strengthening the connection between the MDRRMC and the community is essential to building greater cohesion and improving disaster preparedness and response strategies. The researchers recommend at providing communication devices, establishing animal shelters, disseminating comprehensive information, and offering training programs for community preparedness.

## CHAPTER I THE PROBLEM AND ITS SETTING

### Introduction

Cohesion between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the community is critical for effective disaster management and in mitigating the adverse effects of natural disasters on the community. However, during disaster operations, there are significant challenges that hinder such cohesion. Without cohesion, the MDRRMC's responsibilities and functions can not be fulfilled, and the community will be at risk.

Natural disasters pose significant dangers and have a profound impact on society such as loss of life and property. To mitigate these, Presidential Decree 1566 was signed into law to strengthen the Philippine disaster control, capability, and the establishment of the National Program on Community Disaster Preparedness, which is now known as the "National Disaster and Risk Reduction Management Council" after the decree was repealed by the Republic Act (RA) 10121, known as the Philippine Disaster Risk Reduction and Management Act of 2010. The Act shifted the focus from just disaster response to a broader approach that includes disaster risk reduction, mitigation, and preparedness. This act strengthened the Philippine disaster risk reduction and management system, provided for National Disaster Risk Reduction and Management Framework and institutionalized the National Disaster Risk Reduction and Management Plan, appropriated funds therefore and for other purposes (Congress of the Philippines, 2009).

Republic Act No. 10121, Section 12 outlines the key responsibilities of the Municipal Disaster Risk Reduction and Management Council (MDRRMC). These includes approving and evaluating the Municipal Disaster Risk Reduction and Management Plan, integrating disaster risk reduction and climate change adaptation into local development, and recommending evacuations. The MDRRMC also consolidates local disaster data, maintains a risk map, operates an early warning system, and coordinates disaster monitoring. It works with local government units (LGUs), civil society organizations (CSOs), private groups, and volunteers to protect lives and property during emergencies, and ensures policies and programs aligned with national guidelines.

Meanwhile, the executive order entitled "Institutionalizing the Standard Operating Procedures for Force Evacuation in the Municipality of Burgos," mandates the local community to adhere to forced evacuation during the disaster situation. Forced evacuation orders are mandatory evacuation enforced by local authorities requiring the evacuation of a community when an imminent threat to life and property is identified. This order must be followed by residents to ensure their safety during emergencies.

In this light, this paper aims to investigate the factors that hinder the effective cooperation between the MDRRMC and the community during disasters as well as actions that both sectors do in overcoming these challenges.

### Background of the study

Effective disaster management is a critical concern for the community, particularly in regions prone to natural disasters. The Municipal Disaster Risk Reduction and Management Council (MDRRMC) plays an important role in coordinating disaster preparedness, response, and recovery efforts. However, there are factors that hinder the cooperation between the MDRRMC and the local community.

For instance, when Hurricane Matthew approached the Atlantic coast, more than 2.5 million people were told to evacuate in Florida, Georgia, South Carolina and North Carolina. Further orders were issued in eastern North Carolina, where devastating floods had killed 26 people. Many residents followed these orders, but others stayed in place (Horney, 2016).

In Claveria, a town in Cagayan Province, the Antonio family was one that did not evacuate at first. But at about 1:00 in the morning, when strong winds made them fear for their safety, they moved to the shelter of their-in-laws sturdier home. Meanwhile, in the town of Sanchez-Mira, a dozen miles east, local officials said they had ensured people's safety by pushing them to take shelter at the community hall. Eventually, 271 people complied. Some had to be surrounded by police cars. Some people did not want to evacuate their homes, but were forced, by their community leader and stated: "If we didn't make them evacuate, they could have lost their lives. We evacuated everyone to prevent loss of life" (Beech & Paddock, 2018).

With this, the researchers personally observed that the community and the MDRRMC face several challenges during disaster operations, as their efforts often lack alignment and seamless collaboration. Take the case of Barangay Ablan, Burgos, Ilocos Norte which is highly prone to natural disasters such as typhoons, landslides, and flooding, particularly in the low-lying areas. During typhoon season, heavy rains often cause rivers to overflow, flooding homes and farmland. The steep slopes in the barangay make it vulnerable to landslides, especially after prolonged rains, endangering residents and infrastructure. During operations, community members refuse to evacuate and restrain the cooperation with the MDRRMC. Cohesion is therefore essential as it serves to attain the objectives. These recurring disasters complicate daily life, as residents constantly risk losing their homes, livelihoods, and lives.

Recent studies on MDRRMC have shown an information deficiency regarding disaster operations which can be addressed through better cohesion. This research is crucial, as other studies' primary focus is on the MDRRMC and disaster operations alone. This study differentiates itself by including the community's perspective, especially during disaster operations. Building cohesion is essential for criminologists, as it can contribute to more effective disaster management, enhance crime prevention, uphold public order, and strengthen resilience in times of crisis. These perspectives will be valuable for criminologists in their future professional practice.

## Statement of the Problem

This research aimed to investigate the factors that hinder the Municipal Disaster Risk Reduction and Management Council (MDRRMC) from building cohesion with the community during disasters. Specifically, it sought to answer the following questions:

1. What are the factors that hinder the cooperation between the MDRRMC and the community during disaster operations?
2. What are the actions taken by the MDRRMC to overcome the challenges met during their disaster operations?

## Theoretical framework

The following theories served as a guide in the conceptualization of this study.

### Social Impact Theory

The Social Impact Theory examines how individuals are influenced by the presence, actions, or expectations of others. The theory highlights that people can be persuaded, inhibited, or supported by social forces depending on the strength, immediacy, and number of influencing sources (Latané, 1981).

In the context of disaster management, the Social Impact Theory explains how the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and barangay officials influence community members to take protective actions, such as early evacuation. Through repeated reminders, clear communication, and active engagement, the MDRRMC strengthens community trust and cooperation, fostering a collective response to disaster risks and enhancing local resilience.

### Risk Perception Theory

Risk perception is defined as the ability to identify and evaluate risks associated with hazardous events. This theory underscores the significance of understanding how individuals and groups perceive and assess risks. This understanding influences decision-making, preparedness, and response to disasters (Hunter, 2002).

The theory highlights the importance of aligning risk perceptions between the MDRRMC and the community to foster trust, enhance cooperation, and improve disaster management. Applying the Risk Perception Theory enables better understanding of community views, supports participatory decision-making confidence and encourages greater cooperation and preparedness.

### Emergency Management Theory

The Emergency Management Theory is a comprehensive framework for managing disasters and risks. Developed in response to the 9/11 terrorist attacks, it emphasizes the inevitability of disasters and the need for proactive and reactive strategies to mitigate their effects. The theory asserts that without urgent and responsible action in the areas of prevention, response, recovery, and mitigation, societies will face irreparable consequences. It outlines four key phases/measures taken before a disaster to prepare, actions to reduce or eliminate the impacts of a disaster, efforts to assist victims during the disaster, and steps to normalize affected areas and help victims recover post-disaster (David, 2004).

This theory encompasses a range of principles and strategies aimed at preparing for, responding to, recovering from, and mitigating the impact of disasters and emergencies. However, by applying principles from the Emergency Management Theory, the Municipal Disaster Risk Reduction and Management Council (MDRRMC) can significantly improve its effectiveness in disaster management. By effectively demonstrating these principles, clearly communicating roles, and modeling best practices, the MDRRMC builds community confidence and encourage stronger cooperation, ultimately enhancing local disaster resilience.

## Conceptual framework

The study adopted the Input-Process-Output-Outcome (IPOO) model proposed by McGrath (1964). This research focuses on fostering cooperation between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the community during disaster operations.

The input of this study includes the factors hindering cooperation between the MDRRMC and the community during disaster operations, as well as the actions taken by the MDRRMC to address these challenges. The output is the creation of an Action Plan entitled "Building Cohesion: Municipal Disaster Risk Reduction and Management Council and the Community", which provides practical strategies to enhance cooperation, preparedness, and safety measures during disasters. This plan aims to strengthen the partnership between the community and the MDRRMC and improve overall disaster risk reduction efforts. Ultimately, the outcome is the development of a more resilient community, where the implementation of the Action Plan is expected to lead to improved disaster preparedness, a stronger relationship with the MDRRMC; and a proactive culture of disaster risk reduction, ensuring better response and recovery from future disasters

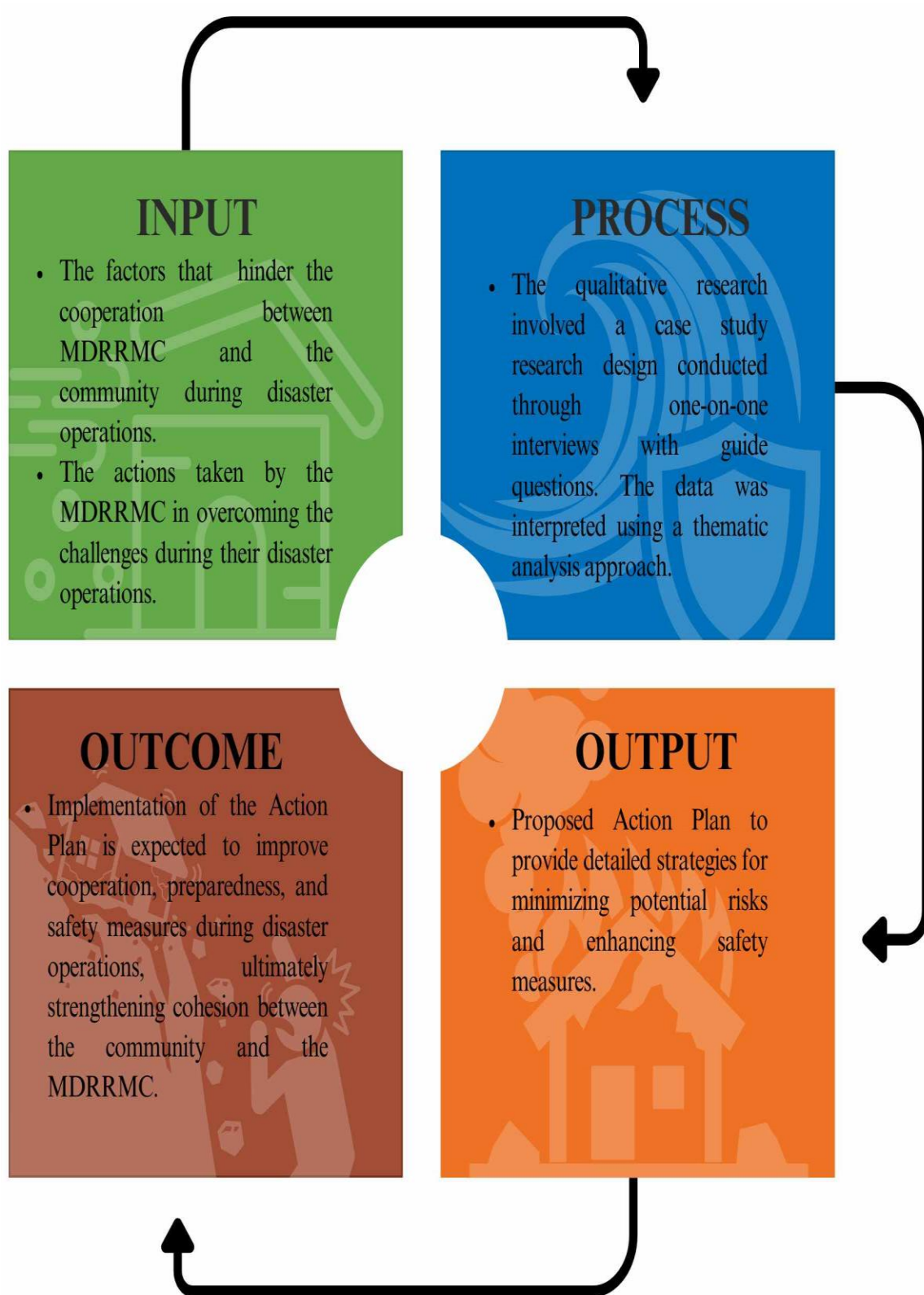


Figure 1. Research Paradigm

### Significance of the study

This study is of great significance to the following:

**Communities.** The findings of the study will improve the community's understanding of the challenges faced by the Municipal Disaster Risk Reduction Council, leading to better disaster response, communication, and stronger collaboration with the Council during operations, ultimately enhancing community preparedness and resilience.

**Municipal Disaster Risk Reduction and Management Council.** The findings of the study will provide significant insights on the hindrances of the community, aiding council in developing more effective strategies, improving preparedness, and strengthen collaboration.

**Local Government Unit (LGU).** The study's findings will provide insights to LGU about the challenges faced during disaster operations, enabling them to formulate policies to build cohesion between the community and MDRRMC and allocate resources more effectively to address these challenges and improve disaster preparedness and response.

**Students.** The study will provide students with valuable insights on the challenges faced by communities and Disaster Risk Reduction Management during rescue operations and inform them about the significance of cohesion between the community and MDRRMC, enhancing their understanding of disaster risk reduction and management.

**Educational Institutions.** The study's findings can be incorporated into educational curricula, enabling schools to better educate students on the significance of cohesion during disaster operations and prepare them for potential disasters, and promote awareness and preparedness within the community.

**Future Researchers.** The body of knowledge and the findings of these study shall serve as a valuable resource and point of reference for upcoming criminological researchers, providing a basis for further research, analysis, and in-depth examination of community preparedness.

### Scope and delimitations of the study

This study investigated the factors that hinder the cooperation between the MDRRMC and the community, as well as the actions taken by the MDRRMC in overcoming the challenges during their disaster operations. This study was conducted in Brgy. Ablan, Municipality of Burgos. Fourteen (14) participants were selected from both MDRRMC and the community. The study focused only on natural disasters, particularly floods and landslides. The study's participants were seven MDRRMC units and seven communities which have experienced natural disasters.

This study was conducted in the S.Y.2024 – 2025.

### Definitions of terms

The following conceptual definition and terms were operationally defined to enhance understanding of the study and address any reader questions.

**Municipal Disaster Risk Reduction and Management Council.** This refers to a local government council in the Municipality of Burgos, Ilocos Norte that oversees the implementation of disaster risk reduction and management programs at the municipal level.

**Cohesion.** This refers to the unity, cooperation, and collective effort of the MDRRMC personnel and community working together to effectively respond to and recover from a disaster.

**Disaster.** This refers to the results of significant damage, destruction, or hardship caused by natural disasters such as floods and storm surge during a disaster.

**Challenges.** These are difficulties or problems encountered during disaster operations that make it hard to achieve a goal or complete a task.

**Disaster Operation.** This refers to the organized efforts and actions taken by the MDRRMC to deal with the aftermath of a natural disaster.

**Actions Taken.** These are steps or measures that were carried out to address or solve a problem or overcome challenges during disaster operations.

**Factors.** This refers to the different elements or conditions that negatively impact the ability of MDRRMC personnel and community to collaborate effectively during emergencies.

**Risk Reduction.** This refers to the practice of minimizing disaster risks by reducing exposure, decreasing vul-

nerability, and enhancing preparedness through collaboration between the MDRRMC and the community.

**Management.** This refers to the systematic use of skills and policies to reduce risks, enhance resilience, and foster collaboration between institutions like the MDRRMC and the community.

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE AND STUDIES**

This chapter presents an overview of the research and written works on the examined topic. It serves as a guide for the study, emphasizing the similarities and differences with prior studies that had been conducted.

#### **Disaster risk reduction programs to increase public awareness of natural disasters**

This study aims to evaluate disaster risk reduction programs and their effectiveness in increasing public awareness of natural disasters. It seeks to identify key factors that influence public response to these programs, focusing on community-based approaches such as the Community-Managed Disaster Risk Reduction training program. The study also examines gender disparity in decision-making and the role of religious and social groups in disaster risk management campaigns. Additionally, it highlights the importance of resilience and cooperative spirit within village communities as essential elements in disaster management.

The study uses a qualitative research approach through a systematic literature review. Relevant peer-reviewed articles published between 2020 to 2023 were selected from databases such as SAGE, Springer Link, ProQuest, Scopus, and ScienceDirect. The review focused on studies that explore the practical implementation of DRR programs, using experimental designs, observational methods, and both randomized and non-randomized controlled trials. The primary outcome evaluated was the effectiveness of community-based DRR efforts in reducing disaster risk and increasing public awareness.

The study findings suggest that community-based disaster risk reduction programs are effective in increasing public awareness and enhancing disaster preparedness. Factors such as community mobilization, participatory risk mapping, and the involvement of women were identified as critical components for successful disaster management. Gender disparities in decision-making processes were noted, highlighting the need for more inclusive disaster management strategies. The study also emphasizes the importance of resilience and cooperative spirit within village communities, concluding with recommendations to strengthen disaster risk management capacity through innovative and community-focused approaches (Asih, 2023).

#### **Disregarding Information**

The study aimed to explore the challenges and opportunities in managing disaster information in disaster-prone regions, specifically focusing on the Asia-Pacific region. It examined the role of comprehensive disaster databases in understanding vulnerability and exposure, which are critical for effective disaster risk reduction and management. The scope included investigating the reasons why communities often disregard critical disaster information and the impact of this behavior on increasing vulnerability.

The study employed a qualitative approach, analyzing the experiences and perspectives of key stakeholders involved in disaster risk management. Interviews and focus groups with community members, officials, and experts in disaster management were conducted to gather data. The data collected were used to understand how risk information is communicated, perceived, and acted upon in disaster-prone areas.

The findings suggest that one of the main challenges is the lack of institutional capacity to manage disaster information effectively. This includes the absence of standardized geospatial data infrastructure and difficulties in making risk information actionable and accessible. Additionally, communities' disregard critical information due to a lack of trust in official warnings and overreliance on personal judgment while was a significant concern. The study also identifies opportunities to improve disaster information management, such as enhancing regional cooperation and developing standardized data collection practices. These improvements are crucial for strengthening disaster preparedness and response, building trust, and improving communication between MDRRMC and the community to ensure that risk information is effectively understood and utilized (Sinha, 2014).

#### **A critical evaluation of the companion animal disaster management framework in New Zealand**

The study aims to assess the effectiveness of the current framework in place for managing companion animals during disasters. It specifically focuses on identifying strengths, weaknesses, and potential areas for improvement within the framework. The scope of the study encompasses analyzing existing policies, procedures, and resources related to companion animal disaster management in New Zealand, as well as examining relevant research and best practices from other countries.

The study employs a mixed-methods approach, combining qualitative and quantitative data collection and analysis techniques. Qualitative data is gathered through semi-structured interviews with key stakeholders involved in companion animal disaster management, including government officials, animal welfare organizations, and veterinarians. Quantitative data is collected through a survey distributed to animal owners and emergency responders. The data analysis involves thematic analysis of interview transcripts and statistical analysis of survey data.

The study's findings highlighted both strengths and weaknesses within the current companion animal disaster management framework in New Zealand. Among the strengths indicated was the existence of a national framework and the involvement of various stakeholders in its development. Meanwhile, weaknesses identified include a lack of clear guidelines for animal owners during disasters, insufficient resources for animal shelters and evacuation facilities, and limited public awareness regarding companion animal disaster preparedness. The study recommended that the framework should be improved such as enhancing communication channels between stakeholders, increasing

funding for animal shelters and resources, and promoting public education campaigns on companion animal disaster preparedness (Glassey 2023).

### **Conceptualizing 'Disaster Education'**

The study aimed to define and conceptualize the emerging field of Disaster Education, highlighting its importance and potential impact on disaster preparedness and resilience. It analyzed existing literature and research in disaster risk reduction, education, and psychology to develop a comprehensive understanding of Disaster Education.

The study used a conceptual framework approach, drawing upon existing literature and research in disaster risk reduction, education, and psychology. It analyzed key concepts, theories, and frameworks related to disaster preparedness, education, and behavioral change, integrating them to develop a comprehensive understanding of Disaster Education.

The study highlighted the importance of integrating disaster education into various educational settings, including schools, universities, and community organizations. It proposed a framework that encompasses various aspects of disaster education, including Knowledge and Understanding providing individuals with the necessary knowledge and understanding of disaster risks, hazards, and vulnerabilities. Skills and Competencies developing practical skills and competencies related to disaster preparedness, mitigation, and response. Attitudes and Values fostering positive attitudes and values towards disaster risk reduction, promoting community engagement and collective action. Behavioral Change encourages individuals to adopt proactive behaviors that enhance their safety and resilience in the face of disasters. The discussion section of the study emphasizes the need for collaborative efforts between governments, educational institutions, and community organizations to develop and implement effective disaster education programs. It also suggests future research directions, including exploring the effectiveness of different disaster education approaches, evaluating the impact of disaster education programs on individuals and community resilience, and developing innovative tools and resources for disaster education. (Kitagawa, 2021).

### **Human estimates of warning uncertainty: Numerical and verbal descriptions**

The study aims to investigate how people perceive and interpret uncertainty in weather warnings and to understand how numerical and verbal descriptions of uncertainty impact people's understanding of the likelihood of an event occurring. The scope of the study encompasses examining the reliability and accuracy of human estimates of warning uncertainty when presented with both numerical and verbal descriptions.

The study employs a controlled experimental design to assess the impact of different uncertainty descriptions on human judgment. Participants were presented with weather warnings containing varying levels of uncertainty expressed both numerically and verbally. The researchers measured the participants' subjective probability estimates of the likelihood of the event occurring based on the provided information. This allowed for a direct comparison of how people interpreted numerical and verbal uncertainty descriptions.

Findings suggested that there is a significant difference in how people interpret numerical and verbal descriptions of uncertainty. Participants tended to overestimate the likelihood of events when presented with verbal descriptions compared to numerical descriptions. This further suggested that verbal descriptions, while potentially more accessible to the general public, can lead to misinterpretations and potentially inappropriate responses to weather warnings. The importance of carefully considering the choice of uncertainty communication methods, particularly in situations where accurate understanding is crucial for effective decision-making was also emphasized. While the need for further research into the optimal ways to communicate uncertainty to the public, aiming to improve the effectiveness of weather warnings and enhance public safety was highlighted (Weissmann et al., 2014).

### **Process and Components of Disaster Risk Communication in Health Systems: A Thematic Analysis**

The study analyzed the elements of disaster risk communication within the health system. It explored the impact of effective communication, accurate information, and risk analysis in disaster prevention, risk reduction, and decision-making. The focus was on how communication processes, information technologies, early warning systems, and public education contribute to managing disasters and minimizing losses.

The study employed a qualitative approach using thematic analysis to analyze data from various articles. Two researchers independently reviewed and analyzed the components extracted from the articles. Duplicate components were removed, and the remaining elements were categorized into subcategories based on thematic similarity. Through several iterations of study and revision, the subcategories were further classified into main categories.

Six main categories and 19 subcategories of disaster risk communication in the health system were identified. These categories include: communications (communication processes, features, and infrastructure); information (content production, characteristics, and publishing); risk communication management (risk perception assessment, planning, coordination, and support); monitoring (monitoring and evaluation, accreditation, and documentation); training and education (public and organizational); and human ethics and values (culture and social beliefs, justice and ethics, and trust). In this study, the critical role of effective communication and risk management in disaster response and preparedness, particularly within health systems were emphasized. The categorization of disaster risk communication elements provided a framework for improving disaster management strategies. Findings revealed that understanding these elements can enhance the coordination and delivery of health services during crisis, ultimately reducing the impact of disasters on public health. The study suggested that fostering effective communication and integrating robust risk management processes can improve disaster resilience and mitigate losses (Yong et al., 2020).

### **Communicating Risks: Factors Influencing Filipinos Living in High-risk Areas to follow redemptive Evacuation Procedures**

The study aimed to understand why Filipinos living in high-risk areas choose to follow or disregard pre-emptive evacuation orders during natural disasters. The study specifically focused on identifying the factors that influence their decision-making process, including risk perception, social factors, perceived control, and socio-demographic variables. The study was limited to Filipinos residing in high-risk areas



within the Philippines.

Quantitative approach was utilized, employing a survey questionnaire to gather data from a sample of Filipinos residing in high-risk areas. A questionnaire was designed to measure participants' risk perception, using the Theory of Planned Behavior framework, and to assess the influence of social factors, perceived control, and socio-demographic variables on their evacuation behavior. Data analysis involved descriptive statistics, correlation analysis, and regression analysis to identify significant relationships between the variables.

Findings revealed that social pressure from local officials and awareness of evacuation centers significantly influence people's willingness to evacuate. It was found out that individuals who perceive a higher level of risk are more likely to evacuate, and those who feel a stronger sense of social pressure from local authorities are also more inclined to follow evacuation orders. Moreover, the study highlighted the importance of effective risk communication strategies tailored to specific contexts to encourage pre-emptive evacuation. It emphasized the need for clear and timely information dissemination, building trust with communities, and addressing social and cultural factors that may influence evacuation decisions. The study concluded that by incorporating these recommendations into risk communication efforts, disaster preparedness strategies can be more effective in promoting public safety and minimizing the impact of natural disasters (Balunday, 2017).

### **Disaster Preparedness of Local Governments in Panay Island, Philippines**

The study assessed the preparedness of local governments in Panay Island, Philippines, in responding to natural disasters. It specifically focused on evaluating the effectiveness of disaster preparedness plans of 92 municipalities in the island, using the state-designed Local Government Unit Disaster Preparedness Journal: Checklist of Minimum Actions for Mayors. The study analyzed the preparedness levels of these municipalities across four criteria: systems and structures, policies and plans, building competencies, and equipment and supplies.

The study utilized a quantitative approach, and analyzed statistical packages for social sciences to calculate frequency counts, percentages, and weighted means. The study also considered the vulnerability of each municipality to various natural hazards, including tropical cyclones, floods, earthquakes, droughts, and landslide

Findings reveal that while local governments in Panay Island are generally considered partially prepared for natural disasters, there are significant variations in preparedness levels across different municipalities. It was found out that in coastal municipalities, those with higher populations, and those with fewer villages tend to exhibit higher levels of preparedness. It likewise highlighted several challenges, including diverse stakeholder attitudes, insufficient manpower, and poor database management, which hinder the effective implementation of disaster preparedness plans. Several recommendations were given for enhancing disaster preparedness, such as appointing full-time disaster managers, developing a disaster information management system, organizing village-based volunteers, integrating disaster management into formal education, and conducting mandatory trainings for officials. The study emphasized the need for a comprehensive approach to disaster preparedness, encompassing a 360° strategy that addresses all aspects of disaster risk reduction and response. Finally, the study highlighted the importance of addressing emerging emergencies, such as the COVID-19 pandemic, within the framework of disaster preparedness plans (Asis et al., 2021).

### **Disaster Risk Reduction and Management**

Climate disasters are increasing in frequency and magnitude due to the worsening effects of climate change. Small island developing states and least developed countries are the most vulnerable. Global frameworks such as the Paris Agreement, Sustainable Development Goals, and Sendai Framework for Disaster Risk Reduction have been created to inform policy making and mitigate climate change. The Philippines ranked 9<sup>th</sup> out of 181 countries in terms of risks to disasters due to its geographical characteristics, socio-economic and political landscape, and positioning along the Pacific Ring of Fire. The nation faces an average of 20 typhoons that entered the Philippine Area of Responsibility each year. Metro Manila, the capital city, is highly vulnerable to climate disasters due to its location on low-lying land and high population density.

A case study approach was used to examine the current strategies of disaster risk reduction and management (DRRM) in the Philippines. This method was selected as it allowed for an in-depth understanding of a real-life situation. The study focused on the 2020 typhoons in Metro Manila as a case study. Primary data was collected through semi-structured interviews with three key informants: OCD, PDRF, and ADB. However, due to the COVID-19 pandemic and Typhoon Odette, the primary data collection needed to be improved. Appropriate measures were taken to prevent the spread of COVID-19 during the field trip. The study aimed to analyze how DRRM frameworks handled multi-hazard events and how the lessons learned could be applied to other regions with similar contexts.

This text discussed the evolution of Disaster Risk Reduction and Management (DRRM) policies in the Philippines from 1978-2020. The National Program on Community Disaster Preparedness was established in 1978, followed by various laws and frameworks that aimed to prevent and mitigate impacts from climate change and natural disasters. However, Super Typhoon Yolanda in 2013 revealed gaps in policy and response in DRRM, leading officials to review and reform policies once again. The need for increased capacity of local government in risk knowledge and coordination efforts was also highlighted.

The DRRM policies and frameworks in the Philippines had evolved significantly, with efforts now encompassing prevention, mitigation, and preparedness before a disaster. However, there was room for improvement when dealing with the ever-changing and growing climate risks. The Philippines currently followed a transformation as an intensification model when developing DRRM frameworks and policies, which could reinforce rather than challenge the status quo. This model intensifies the dominant socio-ecological relationships already present and can, therefore, make it difficult to challenge the current system. The current DRRM policymaking system in the Philippines operates in this transformation as an intensification of the dominant socio-ecological relationships model. It can be improved to reduce losses and damage from disasters.

### **Effectiveness of the Barangay Disaster Risk Reduction and Management Committees (BDRRMCs) in Flood-Prone Barangays in Cabanatuan City, Philippines**

This study was conducted to assess the organizational effectiveness of the Barangay Disaster Risk Reduction and Management Committees (BDRRMCs) in flood-prone barangays in Cabanatuan City, Philippines. The study specifically focused on evaluating the effective-



tiveness of the BDRRMCs in relation to the goals and objectives of Republic Act 10121, also known as the Philippines Disaster Risk Reduction and Management (DRRM) Act. The study only focused on the flood-prone barangays in Cabanatuan City.

A quantitative approach were utilized, employing a checklist of disaster preparedness divided into four thematic areas: a) Disaster Prevention and Mitigation, b) Disaster Preparedness, c) Disaster Response, and d) Disaster Rehabilitation and Recovery. The checklist was used to measure the effectiveness of the BDRRMCs against the goals and objectives of the Philippine Disaster Risk Reduction and Management (DRRM) Act. The resulting scores were then used to calculate a Disaster Preparedness Effectiveness Index, which provided a measure of the effectiveness of the BDRRMCs.

The study's findings highlighted the need for periodic evaluation of the effectiveness of Barangay Disaster Risk Reduction and Management Committees (BDRRMCs) and to set performance standards. The study found that the BDRRMCs in the flood-prone barangays of Cabanatuan City exhibited varying levels of effectiveness, with some areas demonstrating stronger preparedness than others. The study also emphasized the importance of community involvement in disaster risk reduction, as this is crucial for achieving successful disaster preparedness outcomes. It was therefore recommended that the BDRRMCs should conduct regular evaluations to identify areas for improvement and to ensure that their activities align with the goals and objectives of the DRRM Act. It was also suggested that the BDRRMCs should focus on building capacity within their communities, promoting awareness of disaster risks, and fostering a culture of preparedness. The study concluded that by strengthening the BDRRMCs and promoting community engagement, the Philippines can effectively reduce the impact of natural disasters and enhance the resilience of its communities (Antonio, O.C. & Antonio, H.D.P. 2017).

### **Experience in the Implementation of DRRM Policies and Programs in Selected Barangays in the Municipality of Tolosa: The Case of Barangay DRRMC**

The study sought to explore the experiences of Barangay Disaster Risk Reduction and Management Committee (BDRRMC) members in selected barangays of Tolosa, Leyte, Philippines. It specifically focused on understanding the challenges and coping mechanisms employed by BDRRMC members in implementing DRRM policies and programs within BDRRMC members in selected barangays of Tolosa, Leyte.

A qualitative research design was utilized through a case study approach. Data were collected through individual interviews with BDRRMC members, using an interview guide and an audio recording device. Participants provided informed consent before participating in the study. The researcher employed Colaizzi's method for data analysis, which involved identifying themes and patterns within the interview transcripts.

The study's findings highlighted several key themes related to the implementation of DRRM policies and programs at the barangay level. The study found that while DRRM policies and guidelines are being implemented, there is a lack of initiative in terms of policy promotion and program development. BDRRMC members expressed a need for more orientation and capacity-building to improve their performance. The study also identified challenges related to minimal funding for DRRM projects and programs, a lack of support in terms of training and seminars, equipment, and budget for relief goods and livelihood programs. Despite these challenges, BDRRMC members demonstrated resilience by maintaining camaraderie, resolving issues collectively, regularly conducting barangay sessions, and seeking ways to support the community's livelihoods. It was then concluded that while BDRRMC members are committed to their roles, they require more support from the local government unit (LGU) in terms of funding, training, and resources to effectively implement DRRM policies and programs. The study emphasized the importance of strengthening the capacity of BDRRMCs and providing them with the necessary tools and resources to effectively address disaster risks within their communities (Coppola, 2021).

### **Towards Modelling of Evacuation Behavior and Planning for Emergency Logistics Due to the Philippine Taal Volcanic Eruption in 2020**

This study investigated the factors influencing evacuation logistics during the 2020 Taal Volcanic eruption in Barangay Banga, Talisay, Batangas, Philippines. It aimed to understand the evacuation behavior of households in the context of a volcanic eruption and to identify key variables that could be used to improve evacuation planning and logistics in the future. The study's significance lies in its contribution to disaster risk reduction efforts, particularly in volcanic-prone areas, by providing insights into the decision-making processes of individuals during emergencies.

The study employed a descriptive statistical analysis based on a survey conducted with households in Barangay Banga. The survey collected data on household evacuation logistics, including the type of evacuation, departure timing, evacuation mode choice, and destination choice. The researchers analyzed the relationship between these variables and factors such as socio-demographic characteristics, hazard-related factors, and experience with Taal Volcano's recurring activities. A pairwise correlation analysis was used to identify influential factors related to household evacuation logistics.

Findings revealed that household evacuation logistics were influenced by a combination of factors, including socio-demographic characteristics, hazard-related factors, and past experience with volcanic eruptions. The results highlighted the importance of considering individual and household-level factors when planning evacuations. For instance, the study found that households with higher levels of education and income were more likely to evacuate early and use private vehicles. The study also found that households with prior experience with volcanic eruptions were more likely to have evacuation plans in place and to evacuate promptly. These findings suggested that future evacuation planning efforts should focus on providing information and resources to vulnerable populations, including those with lower levels of education and income, and those who may not have experienced with volcanic eruptions. Additionally, the study emphasized the need to develop more robust evacuation logistics systems that can accommodate the diverse needs of different communities (Lim et al., 2022).

### **Thousands of people didn't evacuate before Hurricane Matthew.**

Hurricane Matthew approached the Atlantic coast in November 2016, more than 2.5 million people were told to evacuate in Florida, Georgia, South Carolina and North Carolina. Further orders were issued a week earlier in eastern North Carolina, where devastating floods had killed 26 people. Many residents followed these orders, but others stayed in place. In South Carolina, for example, estimates indicate that

about 35 percent of residents under evacuation orders left their homes. In highly threatened coastal areas around Charleston and Beaufort the rate was about 50 percent. Florida Governor Rick Scott held multiple briefings urging people to leave storm zones. “Do not surf. Do not go to the beach. This storm will kill you,” Scott warned (Horney, 2016).

Hurricane Matthew illustrates the challenges of managing disaster evacuations effectively. Multiple factors influence decisions about evacuating, including residents’ genders, how long they have lived in their homes and their feelings of responsibility for friends and family members who decide not to move. Often people who remain are poor and highly vulnerable.

It shows that several factors strongly influence the decision to evacuate. One of the most important previous disaster experience. Matthew was the first major hurricane to make landfall on the Atlantic coast of Florida since Wilma in 2005 so it probably was the first such experience for many people who moved there over the following decade (Hector R. et al., 2022).

## CHAPTER III RESEARCH METHODOLOGY

This chapter presents the method and procedure used during the conduct of the study. It includes the research methodology design, population and locale of the study, data gathering tool, data gathering procedure, and the treatment of data.

### Research Methodology and Design

The qualitative research method was utilized through a case study research design to explore the factors that hinder the cooperation between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the community and to gain an in-depth knowledge about the actions taken by the MDRRMC in overcoming the challenges met during disaster operation.

According to Hassan (2024), qualitative research is a type of research methodology that focuses on exploring and understanding people’s beliefs, attitudes, behaviors, and experiences through the collection and analysis of non-numerical data. Qualitative research provides deep insights into people’s experiences and perspectives. By capturing the details of human behavior and the reasons behind it, the research identified factors hindering cooperation between the community and MDRRMC personnel, offering valuable understanding to improve policies, practices, and knowledge in various areas.

Meanwhile, a case study is an in-depth, multifaceted investigation of a single instance, event, or social entity that allows for a comprehensive understanding of complex issues within their real-life context. The case study approach was chosen as it allows for an in-depth examination of this specific situation. This provides detailed insights into the processes and interactions contributing to successful community engagement and disaster risk reduction efforts.

### Population and Locale of the Study

The participants of the study included seven (7) MDRRMC personnel and seven (7) community members who met specific criteria, such as, those living in Burgos, those who had experienced natural disasters, and those in disaster-prone areas. This study was conducted in the Brgy. Ablan, Burgos, Ilocos Norte.

To identify the participants, the researchers used convenience sampling. According to Palinkas et al., (2015), purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources. This involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest.

### Data Gathering Tool

The main tools for the gathering of data were an interview guide and a recording device for one-on-one interviews. According to Hassan (2024), a one-on-one interview is a research method in which the interviewer meets with one participant at a time to ask questions. These interviews are more flexible and allows the interviewer to ask open-ended questions and follow up on the interviewee’s responses. Semi-structured interviews are useful for exploring a topic in-depth and in gaining a deeper understanding of the interviewee’s experiences and perspectives.

The interview guide questions were designed in an open-ended format to encourage participants to share their experiences. This approach helped capture the unique challenges faced by locals of Brgy. Ablan, Burgos, Ilocos Norte, especially when dealing with natural disasters. A recording device was used to gather and store audio inputs. The primary aim was to collect data on the factors that hindered cooperation between the MDRRMC and the community, as well as the actions taken by the MDRRMC to overcome challenges during their disaster operations.

### Data-Gathering Procedure

An interview guide was developed as a tool. The interview guide questions were evaluated by an adviser and validated by a set of experts for approval. Upon approval of the interview guide, letters to the Mayor and Barangay Chairman of Brgy. Ablan, Burgos, Ilocos Norte were drafted and presented to seek permission to conduct an interview with the participants.

After receiving approval of the letter, the researcher explained the study's purpose and importance to the participants and sought their consent for data collection, emphasizing the need for honest responses. With consent obtained, the researchers conducted one-on-one interviews with the target participants, the responses were recorded and documented to ensure accuracy of the collected data. Participants were briefed about confidentiality and privacy during the interview process. After the study, the participants received tokens of appreciation. The researchers compiled and analyzed the collected data from the interviews.

### Treatment of Data

The researchers used thematic analysis to interpret the gathered results. According to Mcleod (2024), thematic analysis is a quali-

taive research method used to identify, analyze, and interpret patterns of shared meaning (themes) within a given data set, which could be in the form of interviews, focus group discussions, surveys, or other textual data. The researcher transcribed the data and thoroughly reviewed the information from the interviews and recordings with the study's participants. Then significant information from participants' responses were highlighted, capturing essential perspectives for further analysis. Initial codes were created to summarize prominent aspects and applied systematically across the data. Overarching themes were uncovered by analyzing the coded data, identifying patterns and insights central to the participants' responses. Finally, insights and explanations were provided, linking the findings to existing theories and literature. Thematic analysis was chosen for its flexibility in uncovering patterns and themes from qualitative data, offering a systematic approach to interpreting and understanding gathered results. It was used to analyze qualitative information and to systematically gain knowledge.

### **Ethical Considerations**

Researchers need to adhere to promote the aims of the research by imparting authentic knowledge, truth, and prevention of error (Priya, 2017). Every research requires values like accountability, trust, mutual respect, and fairness among all the parties involved in a study. Thus, in conducting the interview, a participant consent form was utilized, explaining the purpose of the study and a detailed explanation of the benefits, risks, and procedures involved. The letter informed participants that their identity would not be identifiable in the research. It was made clear that participants could withdraw from the study at any point in time with no repercussions. It was also discussed that to keep the participant's identity hidden, the researchers would use pseudonyms. After the participants had read the letter detailing the study, each participant was asked if they wished to participate in the research, and when they agreed, each participant was asked to sign the consent letters prepared by the researchers. Furthermore, the participants' right to privacy was always respected during the data collection process.

## **CHAPTER IV**

### **PRESENTATION, INTERPRETATION AND ANALYSIS OF DATA**

This chapter presents the data gathered from the participants, along with its interpretation and analysis.

### **FACTORS THAT HINDER THE COOPERATION BETWEEN THE MDRRMC AND THE COMMUNITY DURING DISASTER OPERATIONS**

The following are the themes of the factors that hinder the cooperation between the MDRRMC and the community.

#### **Poor communication**

Poor communication is the inability to share information clearly. This makes it hard to understand things, cause confusion, and decreased productivity.

Under this main theme sub themes were as follows: lack of information, misinformation, power outage, and delayed information

#### ***Lack of Information***

Lack of information refers to the insufficient data during a disaster that hampers decision-making, coordination, and response efficiency.

Participant 1 from the MDRRMC stated that:

*“Kulang sila sa impormasyon kasi hindi sila ganun ka involve kumbaga they have their own ways.”*  
(They lack information because they're not involved, they have their own ways).

Participant 1 from the Community claimed:

*“Kurang ti impormasyon nga maaw-awat mi isu nga saan kami sigurado digidiay inubrami”*  
(We don't receive enough information, so we're not so confident in what we're doing).

Participant 2 from the Community asserted:

*“Saan da immay nangted ti impormasyon nga agevacuate kami”*  
(Nobody inform us to evacuate).

#### ***Misinformation***

Misinformation has been defined as an incorrect information that initially can seem to be legitimate. It can mislead and create worries or other types of harmful effects to the community.

Participant 2 from the MDRRMC cited that:

*“Mayroong mag paparescue. Sinabi niya kung saang barangay pero hindi sinabi yung exact location”*  
(Someone called for rescue from the barangay but didn't provide the exact location).

Participant 3 from the MDRRMC state that:

***“Idiay sabali a barangay ket wrong information. Ibaga da agpapawit da ti 10 persons ti masapol ngem duwa met lang. Saan a mabalin a wrong information ti maited dapat accurate ti ma responde”***

(Some barangays are providing wrong information. They claimed there are 10 people needed, but only 2 are needed. It's important that the information provided is accurate for the response).

Participant 3 from the Community gave another feedback on the probable cause of misinformation:

***“No agpiga tudo narigat makisarita tawag kase agkapsot signal agawan awan. Saan kami agkin-naawatan.”***

(When the rain gets stronger, it's difficult to communicate through calls because the signal is weak and keeps disappearing. We don't understand each other).

### **Power Outage**

A power outage usually refers to a partial or total loss of power supply to some users. This has been identified by the participants as another form of hindrance for coordination.

Participant 4 from the MDRRMC stated:

***“Awan kuryente isu awan pagalaan mi ti impormasyon ken pang contact kan mi dagitay ma-rescue”***  
(There is no electricity, so we have no way to get information and contact those we need to rescue).

A similar comment from participant 4 of the Community was noted:

***“Kurang ti impormasyon kasi no agawan ti kuryente awan ti signalen”***

(There is a lack of information because when the power goes out, there is no signal).

Participant 5 from the MDRRMC asserted that:

***“No ngamin agawan kuryenten, awan met signalen nga pang contact mi kanyada lalo dagidiay adda iti remote areas”***

(When there is power outage, there's also no signal to contact them, especially those in the remote areas).

Lastly, participant 5 from the Community conveyed:

***“Panagawan ti kuryente ti rason na nga marigatan kami nga makipag communicate iti MDRRMC”***  
(Power outage is the reason why we are having difficulty communicating with the MDRRMC).

### **Delayed Information**

Delayed information refers to the slow or lack of sharing critical data needed for effective response, which can result from communication or logistical issues. This delay hinders decision-making, slows evacuation efforts, and increases risks for affected communities (Mangeri, 2024).

This was confirmed by participant 6 from the MDRRMC:

***“Saan makadanun exactly diay message aglalo idjay remote areas, a saan a madanun dagitay gadgets or signals”***

(The message doesn't get through exactly, especially in remote areas where gadgets or signals are not available).

Meanwhile, participant 6 from the Community asserted that:

***“Naladaw diay impormasyon nga naawat mi isu nga inubrami lattan no ana didiay pakaisalakanan mi”***  
(The information we received was late, so we just did what we could to save ourselves).

Participant 7 from the MDRRMC also claimed:

***“Hindi malinaw ang dumadating na impormasyon kaya nadedelay kami sa pagresponde”***  
(The information we receive is unclear, which is why we get delayed in responding).

Participant 7 from the Community indicated that:

***“No ngamin madama ti didigra ket nakapsot ti signal, narigat ag contact”***  
(When a storm hits our place, the signal is weak, making it hard to contact).

From the proceeding transcript, it could well be deduced that the factors that hinder the cooperation between the Municipal Disaster Risk Reduction Management Council and the community during disaster operations is poor communication which includes lack of information, misinformation, power outages, and delayed information. Under lack of information, the communities involvement, unclear instructions from the MDRRMC, and the barangay's failure to specify exact locations during rescue calls create confusion and hinder effective responses during disasters. When it comes to misinformation, communities are not adequately engaged, which leads to delays and inefficiencies in disaster response efforts. Participants also particularly emphasized power outages as they led to the loss of service and signals, especially in remote areas, making it difficult to gather and share vital information. Also, inconsistent and delayed updates, particularly from remote areas, hinder response efforts by confusing, slowing decision-making, and disrupting coordination and resource distribution. This highlights the critical importance of precise, timely, and reliable communication in disaster management.

The preceding findings are supported by the study of Howard et al. (2017), which emphasizes that lack of information is prevalent. Cooperation between emergency and human services and communities can play a critical role in clarifying assumptions, roles, and capabilities, and in developing realistic strategies for shared responsibility in disaster preparedness, response, and recovery. Knowing the risks and knowing how to or being able to respond to the risks are not the same. This phenomenon was notably observed in Brgy. Ablan, Burgos, Ilocos Norte, where participants struggled to make informed decisions during disaster operations due to a lack of accurate information. Many community members expressed confusion and hesitation, as they were unaware of the severity of the disaster or the location of safe evacuation sites. The absence of clear and accessible communication channels between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the community further aggravated this issue.

Moreover, the study of Muhammed and Mathew (2022) also supports the present study by highlighting that in emergency situations, the credibility of information is often questioned, and affected communities frequently lack localized information needed for emergency decision-making. This was also observed in Brgy. Ablan, where participants faced challenges due to misinformation. Unclear information about the disaster's severity, the safety of evacuation centers, and the timeline for evacuations led to hesitation and confusion among community members. Many acted on rumors or incomplete details, believing, for instance, that the typhoon would weaken or that the evacuation sites lacked adequate resources.

Furthermore, the study of Rector (2022) emphasizes that during Hurricane Sandy, the most common problems were power loss and communication issues due to flooding, which caused difficulties in communication between state and federal response officials. This phenomenon was notably observed in Brgy. Ablan, where participants expressed significant challenges during disaster operations due to frequent power outages. The absence of electricity worsened their fears and frustrations, as power is vital for communication, accessing information, and ensuring safety during disasters.

Finally, the study of Khaled and Mcheick (2019) emphasizes that poor communication between responders can severely hamper assessment and relief efforts, as well as prevent affected individuals from connecting with responders and relatives. Effective disaster management requires a strong communication system to enable continuous interaction between rescuers and command centers. Any failure or disconnection in this system can cause significant problems in disaster response operations. This was evident in Brgy. Ablan, where participants experienced challenges due to delayed information. The late dissemination of critical updates, such as warnings about the disaster's severity and the timing of evacuations, led to confusion and inaction. Many residents were left uncertain about whether they should evacuate, the urgency of the situation, or the availability of resources in evacuation centers.

### **Property over safety**

Property over safety refers to the prioritization of physical assets and infrastructure over ensuring their safety and well-being.

Under this main theme, the sub themes are as follow: personal property, animal property, and kleptophobia

#### **Personal Property**

Personal property is a type of property that includes any asset other than real estate. Personal property is movable, meaning it is not fixed permanently to one particular location. Typically, personal property is not taxed like fixed property.

Participant 1 from the MDRRMC expressed that:

***"Saan da kayat talawan diay balay da kasi digidiay gamit da nga importante, kasla dagiti, lupot, TV, ken ref da"***

(They don't want to leave their house because of their important belongings, like clothes, TV, and refrigerator).

Participant 1 from the Community revealed that:

***"Saan mi kayat ibati digidiay alahas kada kwarta mi ket importante kanyami dagita"***

(We don't want to leave behind our jewelries and money because those are important to us).

Participant 2 from the MDRRMC affirmed:

***"Sa fishing community haan da kayat panawan dagidiay bangka da"***

(In the fishing community, they don't want to leave their boats).

Participant 2 from the Community revealed:

***"Saan mi kayat nagpa evacuate isunga napan kami latta kadagidiay kabagyan min ken gapu daytoy bangka mi ket isu iti usarek nga pangtrabahok"***

(We didn't want to evacuate, so we just went to our relatives. Besides, this boat is what I use for my work).

Participant 3 from the MDRRMC reported that:

***"Saan da kayat nagpa evacuate gapu dagitay lupot kada papeles"***

(They didn't want to evacuate because of their clothes and documents).

Participant 3 from the Community conveyed that:

***“Haan kami agpaevacuate ta gapu ti gamit mi kasla badbado mi kada libro dagitoy annako ket mabasa ket nasisita kanyami dagitoy a gamit”***

(We didn't want to be evacuated because of our belongings, like our clothes and books of my children they might get wet these are important to us).

### **Animal Property**

Animal property refers to the legal classification of animals as property under the law, meaning they are considered objects that can be owned, transferred, and controlled by humans (Fernandez, 2019).

Participant 4 from the MDRRMC shared that:

***“Dagijay farmers haan da kayat panawan dagijay taraken da nga baka ta matay nu mabayan ket isu iti mesa nga pagsapulan da”***

(These farmers don't want to leave their livestock, like their cattle, because they might die if they were left behind, this is one of the source of their livelihood).

Participant 4 from the Community asserted that:

***“Saan ko kayat talawan balay mi kase dagitoy aso mi nga labrador a mabati ket isu iti negosyo mi agilaklako kam ngamin”***

(I don't want to leave our house because of our Labrador dogs, they are part of our business since we sell them).

Similarly, participant 5 from the MDRRMC stated that:

***“Saan da kayat talawan ti balay da kasi digitay taraken da a maibati dagitay kuma baka, manok kada baboy kase isut pagalan da iti biag da”***

(They don't want to leave their house because their livestock that will be left like cows, chickens, and pigs, because those are our source of livelihood).

Participant 5 from the Community indicated that:

***“Haan ko kayat ag evacuate kase kakaasi dagijay aso ken pusa mi nga maibati ket importante kanyak digitay taraken ko”***

(I don't want to evacuate because I feel sorry for our dog and cat that will be left behind, and these pets are important to me).

### **Kleptophobia**

Kleptophobia is characterized by unwanted and intrusive thoughts about being robbed or about stealing from others. (Quick, 2022).

Participant 6 from the MDRMMC expressed that:

***“Saan da kayat talawan diay balay da kasi digidiay gamit da nga importante kasla kuma tay waterpump da ket mabalin da nga takawen dagitoy nu awan tao ta balay da”***

(They don't want to leave their house because of their belongings that was important, like their water pump, which might be stolen if no one is at home).

Participant 6 from the Community revealed:

***“Saan mi kayat panawan balay mi ta baka matakawan kami ti gamit, digita kuma TV kada kabinet mi”***

(We don't want to leave the house because we might get robbed of our belongings, like the TV and cabinet).

Participant 7 from the MDRRMC explained:

***“Ayaw umalis sa bahay kasi baka mapukaw dagitay alikamen da nga lupot ken dagitay nasisita nga papeles da”***

(They don't want to leave their house because of their clothes and important documents that might get lost).

Participant 7 from the Community commented that:

***“Saan mi kayat talawan balay mi kasi baka adda mapan agtakaw”***

(We don't want to leave our house behind because someone might go and steal).

Property over safety is also a factor that hindered the cohesion between the Municipal Disaster Risk Reduction and Management Council and the community during disaster operations. This includes personal property, animal property, and kleptophobia. Under personal property, many people were reluctant to leave their belongings behind because these possessions are closely tied to their sense of identity, stability, and well-being. These items, ranging from clothing and jewelry to money, medications, books, household goods like TVs and refrigerators, essential documents, and even canoes used by fishermen, all hold significant practical or emotional value. This helps explain why people are hesitant to evacuate during a disaster. Moreover, Animal property plays a crucial role in the lives of many community members they prioritize the safety of their pets over their own which is why it often presents a significant reason not to evacuate. For the people in these community, livestock such as cows, pigs, and chickens are more than just animals; they are essential to their livelihoods, providing

food, income, and a sense of security. These animals are deeply embedded in rural life's economic and social structure, serving as a primary source of sustenance and financial stability for many families. Also, kleptophobia is a significant challenge faced by participants during disaster operations. This fear significantly influenced residents' willingness to evacuate and cooperate with local authorities. They were concerned that, by leaving their homes, their valuable possessions would be stolen. Community members expressed particular anxiety about the safety of their belongings. These belongings were essential for daily life and held emotional and financial significance, making the possibility of losing them during an evacuation even more troubling.

The preceding facts are supported by the study of Florido (2018), which emphasizes that in New Orleans, it was estimated that as many as 30 percent of residents did not have the ability to evacuate before Hurricane Katrina struck, with certain populations refusing to evacuate. This phenomenon was notably observed in Burgos, Ilocos Norte, where participants refused to evacuate during disaster operations. Their resistance stemmed primarily from a strong emotional attachment to their personal belongings, which they viewed as critical to their survival and livelihood. Many were unwilling to abandon items they considered irreplaceable, such as clothing, jewelry, money, books, and household appliances, believing these possessions are essential for their day-to-day existence and future security.

This is also supported by the study of Glassey (2018), which emphasizes that many people refuse to evacuate due to their attachments to their pets, leading to dangerous situations where they may risk their own safety to return for their animals. This phenomenon was notably observed in Burgos, Ilocos Norte, where participants faced these challenges during disaster operations. Despite persistent efforts by local authorities to convince residents to evacuate to safer areas, a substantial number of community members opted to stay behind, prioritizing the safety of their pets over their own. This attachment to animals, combined with concerns about leaving them unprotected, contributed to the reluctance of many to heed evacuation orders.

Lastly, the study of Resnick (2017), corroborates the findings of the study by emphasizing that even people with greater means sometimes refuse to evacuate, fearing that their home may be damaged or looted. This phenomenon was observed in Burgos, Ilocos Norte, where participants experienced challenges during disaster situations. Significant challenges to evacuation emerged as residents expressed strong reluctance to leave their homes due to concerns over potential theft. As the disaster worsened and evacuation orders became more pressing, many community members were unwilling to abandon their properties, fearing that leaving them behind would expose them to looting and theft.

## Disregarding Information

Disregarding information refers to the act of ignoring or overlooking the information provided by MDRRMC personnel during disaster operations.

Under this main theme, sub themes are as follows: ignoring information, and misinterpretation of risk.

### Ignoring Information

Ignoring information refers to the deliberate or unintentional disregard of critical data, warnings, or communication that could impact disaster response and management. Ignoring information can lead to inadequate preparedness, delayed responses, and increased vulnerability of affected communities (Pigeon, 2015).

Participant 1 from the MDRRMC reported that:

***“Saan da patpatyen dagiti pammagma mi. Uray ibagami nga adda heavy rain fall ken storm surge saan da latta agevacuate”***

(They don't believe our warnings, even when we tell them there's heavy rainfall and a storm surge, still, they do not evacuate).

Participant 1 from the Community conveyed that:

***“Kaslang gagangay kanyami nga saan a mamati sir ata adda met digitay agbagyo kunada ngem naka ininit to met latta”***

(It's like normal for us not to believe sir, because sometimes there's a storm coming but it's sunny).

Participant 2 from the community shared that:

***“Umay da ibaga nga adda umay nga napigsa nga bagyo ngem awan, nakulem to lang wenno arbis na lang”***

(They come to tell us that a strong typhoon is coming, but then none, it's just cloudy or it only drizzles).

Participant 4 from the MDRRMC asserted that:

***“Dagidiay tao pilosopo da, inton nakaro tay didigra isun to paylang pinag evacuate da, macompromise to met tay safety ti rescueren, na experience mi ditoy daytan”***

(Those people are stubborn. They only evacuate when the disaster is already severe, compromising the safety of rescuers. We've already experienced this here).

Meanwhile, participant 4 from the community stated that:



***“Baka ngamin haan to met laeng agtudo isunga sintiren mi a no agpigsa sa kaminto pumanaw no iso kunada”***

(Maybe it won't even rain, so we need to observe first. If it gets worse, that will be the time we leave evacuate).

On the other hand participant 5 from the MDRRMC claimed that:

***“Saan da mamati ti warnings no madama didigra, kasi diba adda met typhoon nga kasla awan lang uray signal number 2 awan met tudo na nakulem lang, isu no ingkami agsursur ibagami nga agevacuate dan saan da mamati kasi awan tudo na”***

(They don't believe in the warnings during a disaster because sometimes there's a typhoon that seems like signal number 2, but it's only cloudy. So, when we go to their area to tell them to evacuate, they don't believe us because there is no rain).

Participant 5 from the Community expressed that:

***“Adda iwaras da nga ag evacuate kami sir ngem alangan ag evacuate kami ket haan mo met makita ta umay nga bagyo na. No tay agkulem wenno agwariswis ti angin kasdiay, iso mamati nak”***

(They spread the word that we should evacuate, sir, but it's hard to evacuate because you can't see the approaching storm. If there's calm to strong winds, that is the time I believe).

Participant 6 from the MDRRMC revealed that:

***“Mas kayat da agyan iddiay balay da kesa ag evacuate sa ton kasagsagan ti didigra isu didiay agpa evacuate dan”***

(They prefer staying in their house rather than evacuating, and only when the danger is at its peak do they choose to evacuate).

Participant 6 from the Community explained that:

***“Mas kabisado mi ngamin ditoy pagnaedan mi sir kesa kanyada ken mailiklik mi dagiti mabalin a pagdanagan no agtalinaed kami ditoy pagtaengan mi”***

(We are more familiar with our place of residence here, sir, compared to them, and we can avoid potential dangers if we stay here in our home).

### **Misinterpretation of Risk**

Misinterpretation of risk happens when individuals misunderstand or underestimate the severity of a threat or danger, resulting in inappropriate or insufficient responses to the situation.

Participant 2 from the MDRRMC commented that:

***“Inbaga mi nga adda bagyo, kitaen da lang ta tangatang lallalo digidiay fisher folks ibaga da lang ket ‘awan saan met naulep’”***

(We informed them that there is a typhoon, they'll just gaze at the sky, especially those fisher folks and say, “There's nothing sir, it's not cloudy”).

Participant 3 from the MDRRMC reported that:

***“Ang mga fisher folks pag may rain fall o storm surge warning, sasabihin nila; ay okay naman, nalinak met’ tapos papalaot sila tapos mawawala nalang sila”***

(The fisher folks when there's a rainfall or storm surge warning, they'll say, “Oh, it's okay, the weather's fine” then they'll go out and later disappear).

Similarly, participant 3 from the community commented:

***“No ngamin umay ti bagyo barok ket aglalo no saan met kasjay kapigsa, baka naangin lang dayta kunak met iso innak latta agpana”***

(“If the storm comes, and it's just weak and not as strong, maybe it's just the wind, so I said, I'll still go fishing”).

During disaster operations, disregarding information is another factor that hinders cohesion between the Municipal Disaster Risk Reduction and Management Council and the community. Disregarding information includes ignoring information and misinterpretation of risks. Ignoring information happens when people tend to disregard advisories; community members noted that typhoons often bring cloudy skies without rain, reinforcing the belief that evacuation is unnecessary. Residents typically prefer staying in their homes and only evacuate when the situation worsens. This highlights the strategies that improve trust in warnings, provide consistent information, and engage the community more effectively in disaster preparedness. Both the MDRRMC and the community shared challenges in disaster response, such as reluctance to evacuate due to the lack of perceived immediate danger. The residents often rely on their assessments of weather conditions, leading them to continue activities such as fishing despite warnings. Local authorities expressed frustration when their warnings about severe weather, such as heavy rainfall or storm surges, are disregarded, especially when community members rely on their observations, like clear skies, to dismiss alerts. Community members often doubt the accuracy of these warnings, citing past instances where predicted storms resulted in only mild weather, leading to complacency. This disconnect between official warnings and personal judgment significantly hinders disaster response.

Moreover, this is supported by the study of Sirianni (2014), which emphasizes that despite official warnings, individuals and communities often rely on their own observations and the strength of their community networks. This behavior is influenced by a sense of community trust and shared experiences. In particular, community members who are frequently exposed to natural disasters might depend more on local knowledge and less on official channels, leading to ignored warnings. Sirianni (2014) highlights the need for integrating local knowledge and community networks into official disaster response strategies to improve the effectiveness of warnings. This phenomenon was observed in Burgos, Ilocos Norte, where participants ignored information that was clearly observed during a recent typhoon. Despite local authorities issuing detailed alerts about impending heavy rainfall and potentially life-threatening storm surges, many residents displayed a notable reluctance to evacuate. Instead of heeding these official warnings, they relied heavily on their own visual assessments of the weather. Efforts must be made to build trust and educate communities about the importance of heeding early warnings, regardless of their immediate observations. Integrating local knowledge with scientific data could also enhance the credibility and reception of disaster warnings.

Furthermore, this is supported by the study of Garfin et al. (2016), which emphasizes that some individuals underestimate the severity of the disaster. They may think the warning is exaggerated or they do not fully understand the risks involved. This is especially true if they haven't experienced a similar event before or if they have experienced false alarms. This phenomenon was observed in Burgos, Ilocos Norte, where participants chose not to evacuate and continued their activities due to a tendency to underestimate the risk posed by the disaster. Rather than prioritizing their safety and taking precautionary actions, such as leaving the area, they often underestimated the severity and likelihood of the threat. This mindset can be influenced by various factors, including familiarity with their surroundings, past experiences where potential disasters did not worsen as expected, or a cognitive bias that makes them believe the situation is less dangerous than experts or authorities indicate.

## **ACTIONS TAKEN BY THE MDRRMC IN OVERCOMING THE CHALLENGES DURING THEIR DISASTER OPERATIONS.**

### **Integrated Response**

Integrated response is the collaboration of various agencies and sectors to efficiently disseminate information and implement actions aimed to saving lives, alleviate suffering, and minimize economic impacts.

Participant 1 from the MDRRMC, shared:

***“Ti inubrami idi ket naki coordinate kami through barangay officials nga icheck tay situation for their safety”***  
(What we did was to coordinated with barangay officials to check the situation for the safety of the people).

Participant 2 from the MDRRMC, asserted that:

***“Ti inubrami idi lattan ket gapu ta kurang ti naawat mi nga impormasyon Intawag mi latta idiay barangayen nga isuda ti mapan mang verify ta narigat met no agpatpatang kami”***

(Due to the lack of information we received, what we did was to call the barangay office to verify, as it's difficult for us to keep guessing).

Participant 3 from the MDRRMC, mentioned that:

***“Naki coordinate kami ti barangay officials tapno ammo mi nu ana ti situation ken tapno ammo mi nu ana ti masapol nga itugot kada mano nga tao ti isend mi nga agreponde kadagiday nga location kasi saan metlang nga isuda ti agkasapulan nga maasistaran wenno marescue”***

(We coordinated with the Barangay officials for us to know about the situation, what is needed to be brought, and how many personnel will be sent to respond from the location because they are not the only one who needs to be assisted or rescued).

Participant 4 from the MDRRMC, indicated that:

***“Ti inubra mi ket naki coordinate kami ti barangay officials nga mangiwaras ti impormasyon lalo dagitay remote areas, naka kurong-kurong kami nga mang balay balay ti panag waras ti impormasyon”***

(What we did was to coordinate with the Barangay officials to disseminate the information especially in remote areas, riding in a three-wheeled vehicle going house-to-house to spread information).

Participant 5 from the MDRRMC, expressed that:

***“Ti inubrami ket naki coordinate kami ti barangay officials ta isudat agsursur a mangidanun ti impormasyon kadagiti remote areas”***

(What we did was to coordinate with the Barangay officials so that they'll be the one to roam around and spread information in the remote areas).

As to participant 6 from the MDRRMC, he revealed that:

***“Incoordinate mi ditoy barangay nga mapan dumanon ti pagtangean da nga ipaka ammu digitoy nga impormasyon”***

(We coordinate with the Barangay for us to go to the people's home to give information).

Participant 7 from the MDRRMC, explained that:

***“Tatawag kami sa barangay officials para sila mismo ang unang pupunta sa mga irerescue namin”***  
(We would call the Barangay officials for them to be the first to go to those who need to be rescued).

Integrated Response is one of the key actions implemented by the Municipal Disaster Risk Reduction and Management Council (MDRRMC) to address challenges stemming from poor communication. This approach involves close coordination between the MDRRMC and barangay officials to ensure the efficient dissemination of risk-related information, particularly to remote and underserved areas. Through this collaboration, the MDRRMC facilitated quicker and more effective responses to disaster situations, prioritizing the safety and well-being of the community. This comprehensive strategy not only enhanced communication but also strengthened the overall capacity of the local government to mitigate risks and protect lives.

This is supported by the study of Bankoff (2019), which emphasizes that barangay officials' deep familiarity with their localities enables them to swiftly assess disaster situations as they unfold, focusing on identifying risks and evaluating conditions on the ground. It highlights the importance of local governance in disaster-prone areas, showing how barangay officials play a key role in providing fast and informed responses during emergencies. This phenomenon was observed in Barangay Ablan as an effort to address the poor communication between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the local community during disaster situations. The participants would communicate directly with the barangay officials, who played a critical intermediary role. The barangay officials were responsible for assessing the situation in specific areas and subsequently relaying the gathered information back to the participants. This structured approach helped ensure that vital updates and situational assessments were accurately conveyed, thereby improving the overall flow of information between the MDRRMC and the affected community members during emergencies.

## **Risk Reduction**

Risk reduction is the practice of decreasing disaster risks by analyzing and managing disaster-causing elements, such as reducing exposure to hazards, reducing vulnerability of people and property, and enhancing disaster preparedness & operation.

Under this main theme are sub-themes like: compulsory relocation, refusal agreement, and disaster lifeline.

### **Compulsory Relocation**

Compulsory relocation refers to the mandatory removal of people from an area that is at imminent risk due to a disaster or emergency situation. This action is enforced by authorities to ensure public safety and minimize the risk of harm to individuals (The Weather Channel, 2016).

Participant 1 from the MDRRMC, commented that:

***“Ti inaramid mi idi saan mi mapilit isuda ket naki coordinate kami ti PNP Burgos ta tulungan da kami nga mang convince kanyada nga agevacuate”***

(What we did then, (when we couldn't convince them), was to coordinate with the PNP Burgos to help us persuade them to evacuate).

Participant 2 from the Community, reported:

***“Adda immay nangibaga nga agevacuate kami ngem diak kinayat, ta adda met toy kabagyan mi nga napanan mi nga pag evacuat. Itan tinulungan dak latta nga nagilipat ti gamiten”***

(There was someone who advised us to evacuate but we refused to, because we have our relatives home to evacuate to, so they just helped us transfer our belongings).

Participant 2 from the MDRRMC, conveyed that:

***“Saan da kayat agevacuate. Itan insuggest mi nga alaen latta dagitay ubbingen ta agbati ti padre de pamilya dan nga mangkita ti gamit da ta imonitor mi metlang tay ama da.”***

(They didn't want to evacuate, so we recommended that we just take their children to the evacuation area and let the father stay behind to watch over their belongings while we monitor the situation).

Participant 4 from the MDRRMC, shared that:

***“Inallukoy mi isuda nga agevacuate. Ti imbagami nga ipan mi digitay taraken da nga baka iti safe area ken imbagami pay tay panggep ti livestock insurance nga kaspagarigan adda mapasamak a madi kadagiti taraken da”***

(We convinced them to evacuate and told them that we will place their cattle in a safe area. We also informed them about the livestock insurance in case an unexpected circumstances happen to their livestock).

Participant 6 from the MDRMMC, claimed:

***“Timmawag kami ti pulis nga katulongan mi nga mangpilit kanyada nga agevacuate isunga simmurot da met”***

(We called for the police to help us force them to evacuate and they followed us).

Participant 6 from the Community, mentioned that:

***“Kinasarita dakami nga agevacuate idi kadagidiay nga oras ta agbati ni tatay mi nga mangkita dagitoy gamit”***

(They informed us to evacuate at that time and our father will stay to monitor our belongings).

Participant 7 from the MDRRMC, indicated that:

***“In forced mi latta isuda nga agevacuate. In explain mi kanyada nu ana ti mabalin nga mapasamak kanyada nga madi nu dida sumurot”***

(We forced them to evacuate and explained to them about the possible circumstances that might happen if they would not need).

Participant 7 from the community, expressed that:

***“Pinilit dakami nga agevacuate idin ta napigsat bagyon isu ti inbaga da kanyak ket siyak latta nga lala-kin iti agbatin nga mangkita ti sanikwa mi ta agevacute toy pamilyak”***

(They forced us to evacuate because of the strong typhoon. They told me I can just stay and watch over our belongings so that my family could evacuate).

### **Refusal Agreement**

**Refusal Agreement** is a formal arrangement or circumstance in which one party explicitly rejects or refuses to comply with a request, directive, or proposal put forth by another party, often within a legal or official framework.

Participant 1 from the Community, revealed that:

***“Saan ko kayat ti ag evacuate idi ngem adda inted da nga waiver nga kaslang permit nga diak ag evacuate isu napan kamin”***

(I didn't want to evacuate but when they gave us a waiver which is like a permit that states the refusal to evacuate, we went with them).

Participant 3 from the MDRRMC, explained that:

***“Inallukoy mi isuda nga agevacuate. Gapu ta dida kayat pinagperma mi isuda iti waiver nga saan da a willing agpa evacuate ken inexplain mi payen kanyada no anat mapasamak no lalo pay nga pumigsa perper mi ti bagyo na”***

(We convinced them to evacuate but because they did not want to, we asked them to sign the waiver and explained to them the possible scenarios that would happen when the typhoon intensifies.)

Participant 5 from the MDRRMC, claimed:

***“Inaramid mi ti kabaalan mi tapno agevacuate da ngem mas pinili da ti agstay tapno mabantayan da dagitoy taraken da. Ti inubrami ket pinagperma mi isuda iti waiver nga saan da a willing agpaevacuate. Ngem from time to time, with the coordination of the barangay officials, imonmonitor mi isuda”***

(We did our best to convince them to evacuate, but they preferred to stay behind to guard their livestock. What we did was to let them sign a waiver stating that they were not willing to evacuate. However, from time to time, with the coordination of the barangay officials, we still monitored them).

Participant 5 from the Community, reported that:

***“Idi madamat bagyo inbaga da kanyak nga agevacuate nakun ngem diak talaga maibati dagitoy bakak ta mas kampante nak nga safe da nu makitkitak ida ngem adda da latta met mang kitkita kanyak nga barangay tanod”***

(During the storms, they told me to evacuate, but I really didn't feel the need to because I feel more at ease knowing they are safe when I see them, and there are still barangay officials who keep an eye on me).

### **Disaster Lifeline**

**Disaster lifeline** is an essential service, offering a dedicated emergency number for individuals to seek assistance, report emergencies, or obtain information during a disaster. These hotlines ensure that those affected can swiftly access necessary help and resources.

Participant 3 from the Community, conveyed that:

***“Adda immay nangibaga nga agevacuate kamin ngem pinili mi ti saan nga agevacuate ta saan mi maibati ti pagtaengan mi, ken nangted da ti hotline nga agserbi nga pagtawagan mi nu masapol mi ti tulong”***

(Someone came and suggested that we evacuate, but we chose not to evacuate because we didn't want to leave our home. They provided us with a hotline that we can call if we needed assistance).

Participant 4 from the community, shared:

***“Adda immay nangibaga nga agevacuate kami ngem no agevacuate kami, awan pangipanak digitay taraken ko. Isu pinilik ag stay. Innala da toy cellphone number ken inted da met ti cellphone number da tapno adda pagtawagak”***

(Someone came and told us to evacuate, but if we evacuated, we wouldn't have anyone to watch over our animals. So we chose to stay. They took my cellphone number and also gave me their cellphone number in case I needed to call for help).

Participant 7 from the community, stated that:

***“Adda met ketdi inted da nga cellphone number da barok nga mausar mi kanu nga pang tawag mi kanyada nu kaspagarigan barok nu agpasalakan kami”***

(They also provided their cellphone number that we can use to call them if we need help).

Risk reduction is also one of the actions of the Municipal Disaster Risk Reduction and Management Council to ensure the community's safety and resilience against potential disasters. Moreover, compulsory relocation was implemented to address challenges arising from prioritizing property over safety during disaster operations. Many community members were reluctant to evacuate due to their attachment to homes, belongings, and livestock. To address this, MDRRMC personnel, with the support of the police, encouraged or enforced evacuation, offered compromises such as partial family evacuation, and reassured residents about the safety of their livestock and the availability of insurance. Although some initially resisted, most agreed to evacuate. After risks were explained or when evacuation became mandatory. Also, the refusal agreement addressed residents' decisions to remain in their homes despite imminent danger. This formalized their refusal through a waiver, which transferred responsibility for their decision to stay onto them. Residents often chose to stay to safeguard livestock, believing their presence offered better protection. The waiver served as a legal acknowledgment of their choice and ensured the MDRRMC's advisories were documented. The Disaster Lifeline was another significant initiative addressing the needs of those who refused to evacuate due to concerns about animals and valuables. Local authorities provided a contact number for assistance and collected residents' information to monitor their status. This ensured that even non-evacuating residents remained within reach for emergency response, offering support and maintaining communication during the disaster.

In line with this, the study of Alexander (2020), emphasizes that compulsory relocation is often implemented to ensure the safety of individuals living in disaster-prone areas. However, it raises significant challenges, as forced relocation disrupts established social ties, livelihoods, and cultural attachments to ancestral lands, often leading to resistance from affected communities. A similar phenomenon was observed in Burgos, Ilocos Norte where efforts to address property over safety faced similar barriers. Residents prioritized familiarity and accessibility over potential safety benefits. This underscores the need for policies that balance safety with the socio-economic and emotional well-being of relocated individuals.

This is also supported by the study of Cuthbertson and Penney (2023), which systematically reviews ethical decision-making in disaster and emergency management. The study emphasizes the importance of ethical frameworks, including informed consent, in guiding decisions during disasters. In Burgos, Ilocos Norte, the Municipal Disaster Risk Reduction and Management Council (MDRRMC) utilized consent agreements to manage the reluctance of residents to evacuate their homes despite imminent danger. The consent agreement, in the form of a waiver, allowed residents to assume responsibility for their decision to stay. This legal acknowledgment of their choice not to evacuate, despite being advised otherwise, was essential in balancing the protection of property and ensuring personal safety. The primary motivation for residents to stay was to protect their livestock, which they believed would be safer under their direct supervision. This phenomenon was observed in Brgy. Ablan that demonstrated a pragmatic approach to disaster management, where legal tools were employed to balance individual rights with public safety. This approach not only respects the autonomy of residents but also ensures that they are fully informed of the risks involved in their decisions.

Furthermore, this is supported by the Emergency Management Theory, which emphasizes the study of emergency and disaster preparedness, response, recovery, and prevention. It draws from a range of academic fields, including engineering, public administration, psychology, and sociology, to comprehend the origins, consequences, and solutions of complicated and ambiguous circumstances. This theory was observed in Burgos, Ilocos Norte, where the MDRRMC recognizes that not all residents may comply with evacuation orders due to various personal, cultural, or practical reasons, such as concerns for property safety, attachment to their homes, or distrust in evacuation protocols. In response, the council adapts its strategy by implementing measures to provide continued support and assistance to those who decide to stay behind, such as issuing emergency hotlines or deploying mobile response units. This approach demonstrates flexibility and a commitment to inclusivity, ensuring that the needs of all community members are considered during disaster response efforts.

## **Regulatory Adherence**

Regulatory dherence means following the rules and directives set by authorities like the MDRRMC. Community members should comply with these guidelines, especially during disaster preparation and response, to ensure safety and reduce risks.

Under this main theme sub themes are as follows: re-dissemination of information, and risk control

## Re-dissemination of Information

Re-dissemination of information is the process of distributing previously shared or communicated information to ensure it reaches a broader or specific audience. It is commonly used to reinforce awareness, address missed audiences, or new information to new situations or communication channels.

Participant 1 from the MDRRMC, shared that:

***“Ulit uliten mi nga allukoyen isuda. Inexplain mi ti mabalin mapasamak kanyada nga madi until mapihit mi isuda”***

(We repeatedly encourage them, explaining what could happen to them until we forced them).

Participant 4 from the Community, asserted that:

***“Immay dakami kinsarita ti barangay nga nu mabalin sapaen mi ti agevacuate habang saan pay napigsa ti bagyo na”***

(The barangay came to tell us to evacuate earlier while the typhoon is not yet strong.)

Participant 5 from the MDRRMC, explained that:

***“Inlawlawag mi kanyada ulit nga daytoy a pakdaar babaen ti tulong iti barangay ket tapno masigurado nga maiwaras detoy nga information ket inpost mi pay ti social media”***

(We explained the warning to them again, with the help of the barangay, to make sure the information was properly distributed, we also posted it on social media).

Participant 5 from the community, claimed:

***“Pinilit dakami ken inalawag da nga sapaen mi ti agevacuate ita nga haan pay napigsa unay ti bagyo”***

(They insisted and explained that we should evacuate early, while the typhoon isn't too strong yet).

Participant 6 from the Community, narrated:

***“Umay dakami kinsarita nga agevacuate ngem pinilik ti agbati ta awan mangkita toy balay mi isu ad-da pinapermaan latta nga waiveren mang paneknek nga saan nak ag evacuate”***

(They came to tell us to evacuate but I chose to stay because no one would watch our house, so I just signed a waiver as proof that I refused to evacuate).

Participant 7 from the MDRRMC, revealed:

***“Sinabi namin sa barangay nai reremind nila yung mga tao para at least man lang maalala nila ang mga dapat nilang gawin sa kasagsagan ng bagyo.”***

(We told the barangay to remind the people so that at least they would remember what to do during the typhoon).

## Risk Control

Risk control is the implementation of measures and strategies to mitigate or manage risks identified during the risk assessment.

Participant 2 from the MDRRMC, stated that:

***“Binagaan mi ulit isuda ken incoordinate mi dagus ti marines nga nu adda makita da nga pumalaot ket pigilan da.”***

(We warned them again and immediately coordinated with the marines, instructing them to stop anyone they see attempting to go out to sea).

Participant 1 from the community, explained:

***“Idi pimmalaot kami ket adda dagitoy marines nga nangpasardeng kanyami rason nga nagsubli kami”***

(When we went out to sea, there were Marines who stopped us which is why we turned back).

Participant 2 from the Community, commented that:

***“Idi nakita dak nga pimmalaot immay dak mismo dinanunon nga pawilan, dagitay marines nukwa sir”***

(When they saw us go out to sea, they came to stop us personally, those Marines did, sir).

Participant 3 from the MDRRMC, conveyed:

***“Naki coordinate kami sa mga marines and barangay officials. Para maprevent ang pagpunta sa laot, at dapat kumpleto lahat ang mga bangka na naka tali, kung may kulang, dapat agad itong itawag sa amin para alam namin yung gagawin”***

(We coordinated with the Marines and barangay officials. To prevent people from going out to sea, and to ensure all boats were securely tied up. If any boat was missing, it should be reported to us immediately so we would know what action to take).

Meanwhile, participant 3 from the community, shared:

***"Idi napan nak nagpana'n barok ken adda nakakita kanyak nga Marines binagaan nak nga agawid"***  
(When I went out to fish, some Marines saw me and told me to go back).

Participant 4 from the MDRRMC, asserted:

***"Madama ti kinapigsa ti bagyo na ket napan mi latta inkarigatan nga nirescue isuda kadwami digitay barangay tanod kasi nag kurang kam ti tao ta napan da met nag rescue ti sabali nga lugar"***

(Currently there's a strong storm yet we still went and did our best to rescue them together with the barangay tanods because we were short on personnel since others had gone to rescue people in different areas).

Participant 6 from the MDRRMC, mentioned:

***"Incoordinate mi ti barangay officials nga umay da tumulong ti panagrescue tapno alalisto ti panagresponde"***

(We coordinated with the barangay officials so they could help with the rescue efforts and ensure a quick response).

Regulatory adherence involves the actions taken by the Municipal Disaster Risk Reduction and Management Council to ensure that disaster response is effective, lawful, and aligned with established guidelines. Under regulatory adherence includes the re-dissemination of information and risk management. MDRRMC personnel worked closely with community members to spread vital information using strategies such as repeated reminders, risk explanations, and social media outreach for wider distribution. Community participants also emphasized the importance of early engagement with barangay officials and proactive communication to address concerns about property and reduce resistance. Risk control is another key aspect. In collaboration with the Marines and barangay officials, the MDRRMC took steps to prevent potential hazards, such as halting fishing activities during the disaster. Since fishing is a primary livelihood for many residents, this posed a significant challenge. The MDRRMC issued warnings and worked with the Marines to prevent individuals from going to sea, ensuring their safety by stopping them before they could depart.

Moreover, this is supported by the the Social Impact Theory that supports the idea that individuals can be influenced by social forces depending on the strength, immediacy, and number of influencing sources. In Brgy. Ablan, the MDRRMC applied this principle by strengthening community trust and cooperation through repeated reminders, clear communication, and active engagement. By providing clear explanations of disaster risks and collaborating with barangay officials, the MDRRMC fostered a collective response to disaster risks, enhancing local resilience. They also leveraged social media to ensure widespread dissemination of crucial safety information, reinforcing disaster safety awareness.

Lastly, the study of Muharman (2024) strengthen the fact that people tend to select information that supports their existing beliefs, often disregarding information that contradicts their views. In Brgy. Ablan, some community members trusted informal sources or advice aligned with their belief that the storm was not as severe as reported, even when official warnings indicated otherwise. This behavior highlights how people may reinforce misconceptions and ignore important information, especially when it conflicts with their preconceptions.

## Unheeded Voices

Unheeded voices are concerns that are disregarded or neglected by those in positions of authority, reflecting the unaddressed needs or viewpoints of individuals or groups, which can result in negative outcomes.

Participant 1 from the Community, indicated that:

***"Nagur uray kami met sir ngem dikam immasa nga umay dan kasi nagpigsa idi ti agdama nga didigra ket maamak kami nga rumwaren."***

(We waited patiently, sir. But we were not hoping that someone would come because the danger was getting worse, and we were afraid to go out that time).

Participant 2 from the Community, expressed that:

***"Awan sir. Awan met imimay idi isu nga adda ditoy nak latta balayen ta awan met papanak a sabali."***

(No sir, no one came at that time. That's why I just stayed in my house because I had nowhere else to go).

Participant 3 from the Community, revealed:

***"Nagdengneg kam latta ti radyon nga pagalan dadduma nga impormasyon panggep ti madama a didigra ta awan met immay sir"***

(We just listened to the radio to get information about the ongoing disaster because no one came sir).

Participant 4 from the Community, revealed:

***"Agur uray nak latta idin nu anya man ti impormasyon a dumanon ken inubrak lattan ti kabaalak ta awan met umay"***

(I just waited for information to come and managed the things I can do because no one came).

Participant 5 from the Community, commented that:

***"Basar ka dayta a situation sir ket awan met ti nasagap mi nga impormasyon nga aggapu kanyada, isu nga naguray kam latta nga agadda ti kuryenten tapno adda pag updatan mi babaen ti mapaspasamak"***



(Based on that situation sir, we didn't receive any information from them, so we waited for the electricity to re appear for us to have updates from the situation).

Participant 6 from the Community, conveyed that:

*"Basta insalakan mi latta bagbagi mi idin ta awan met dumanon kanyami nga impormasyon no anat ubraen mi"*  
(We just saved ourselves back then because no information came about what we should do).

Participant 7 from the Community, stated that:

*"Adda met immay nagpakdaar ti impormasyon ngem gapu ti kinapigsa idi ti didigran awan met naaramidan min ta mabuteng kam metten nga rumwaren."*

(Someone came to give information but because of the severe disaster, we did not manage to do anything, and we were frightened to go outside).

Unheeded voices highlight significant gaps in the information and support provided by the MDRRMC during disasters. Participants expressed frustration and vulnerability due to delays or the absence of clear guidance. The community members shared their experience of waiting for long periods without any direction, which forced them to make independent decisions. Despite evident risks, no official evacuation order was given, leaving them stranded in unsafe conditions. Others turned to alternative sources like radio or electricity for updates, underscoring a failure in direct communication channels. Participants described taking independent actions or prioritizing personal safety, reflecting their resilience but also their isolation during crisis.

This is supported by UNDRR (2015), which stated that poorly conceived emergency preparedness and response plans fail to save lives and property, and they often worsen resilience and post-disaster recovery by increasing the impact of a disaster. Lack of preparedness efforts, early warning systems, and communication systems ensure that cities, communities, and individuals threatened by natural or other hazards cannot act in sufficient time or appropriately to reduce injury, loss of life, and damage to property and fragile environments. Sustainability cannot be achieved if the community itself and local authorities do not understand the importance of and need for local emergency preparedness and response.



# **BUILDING COHESION: MUNICIPAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL AND THE COMMUNITY**

## PROPOSED ACTION PLAN

### BUILDING COHESION: MUNICIPAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL AND THE COMMUNITY

#### Rationale

Barangay Ablan in Burgos, Ilocos Norte is particularly susceptible to natural disasters like typhoons, landslides, and flooding, especially in its lower-lying areas. Typhoon season brings heavy rains that often cause rivers to overflow, resulting in flooding of homes and agricultural land. The barangay's steep terrain also makes it prone to landslides, particularly after extended periods of rain, threatening both the safety of residents and local infrastructure. During the disaster operations there are factors hindering the cooperation between the Municipal Disaster Risk Reduction and Management Council (MDRRMC) and the community namely: poor communication, such as lack of information, misinformation, power outage, and delayed information; property over safety such as personal and animal property and kleptophobia; and disregarding information such as ignoring information and misinterpretation of risk. Additionally, there are also actions taken by the MDRRMC to overcome the challenges during disaster operation namely; integrated response; risk reduction such as compulsory relocation, refusal agreement, and disaster lifeline; regulatory adherence such as re-dissemination of information and risk control.

The study's findings emphasized the importance of addressing challenges in disaster preparedness and response by fostering collaboration and understanding. Communities gained insights into the difficulties faced by the disaster risk reduction council, leading to improved communication, stronger collaboration with the MDRRMC, and enhanced resilience. The MDRRMC benefited from understanding community challenges, enabling them to develop more effective strategies and partnerships. The Local Government Unit (LGU) was guided to create cohesive policies, allocate resources efficiently, and strengthen ties with the community. Students gained valuable knowledge about disaster operations and the significance of collaborative efforts in disaster risk reduction, while educational institutions were provided with material to enhance curricula and promote awareness. The study also contributed to the body of knowledge in disaster management, providing a foundation for researchers to explore innovative strategies and serving as a resource for future researchers to further examine community preparedness and response.

#### Objectives

To improve cooperation, preparedness, and safety measures in disaster response efforts. This will strengthen the cohesion between the community and the Municipal Disaster Risk Reduction and Management Council. Promoting enhanced collaboration and readiness, the community will become more resilient, allowing the MDRRMC to respond more efficiently to emergencies with a coordinated approach.

#### Strategies

Collaborate with the Disaster Risk Reduction and Management Office of the Municipality of Burgos, Ilocos Norte, and the Barangay Chairman of Barangay Ablan, Burgos, Ilocos Norte, to conduct a seminar titled Building Cohesion: Municipal Disaster Risk Reduction and Management Council and the Community. Encourage residents to participate in the seminar to help reduce potential risks and enhance safety measures.

# BUILDING COHESION: MUNICIPAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL AND THE COMMUNITY (MATRIX)

**Table 1:** *BUILDING COHESION: MUNICIPAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL AND THE COMMUNITY.*

ACTIVITY	OBJECTIVE	STRATEGY	PERSON INVOLVED	TIMEFRAME
<ul style="list-style-type: none"> <li>Conduct Seminar</li> </ul>	<ul style="list-style-type: none"> <li>To enhance cooperation, readiness, and safety measures during disaster response efforts. This will, in turn, strengthen the cohesion between the community and the Municipal Disaster Risk Reduction and Management Council (MDRRMC).</li> </ul>	<ul style="list-style-type: none"> <li>The researchers will collaborate with the Disaster Risk Reduction and Management Office of the Municipality of Burgos, Ilocos Norte, and the Barangay Chairman of Barangay Ablan, Burgos, Ilocos Norte, to conduct a seminar entitled Building Cohesion: Municipal Disaster Risk Reduction and Management Council and the Community. Encourage residents to participate in the seminar to help reduce potential risks and enhance safety measures.</li> </ul>	<ul style="list-style-type: none"> <li>MDDRMC</li> <li>Local residents of Brgy. Ablan, Burgos, Ilocos Norte</li> </ul>	<ul style="list-style-type: none"> <li>2 – 3 Hours</li> </ul>

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the research summary, conclusion, and recommendations of the study.

#### Summary

The study found out that the factors that hindered the cooperation between Municipal Disaster Risk Reduction and Management Council and the community during disaster operation are poor communication, including lack of information, misinformation, power outage, and delayed information; property over safety including personal and animal property and kleptophobia; disregarding information including ignoring information and misinterpretation of risk.

The study also revealed that the actions taken by the MDRRMC to overcome the challenges during disaster operation are integrated response; risk reduction such as compulsory relocation, refusal agreement, and disaster lifeline; regulatory adherence such as re-dissemination of information and risk control.

Furthermore, the study revealed that during the disaster, participants experienced frustration and vulnerability due to delays and the lack of clear direction from the MDRRMC.

#### Conclusion

It can be gleaned from the results that there is an absence of cohesive efforts which led to the emergence of the key factors that prevent strong collaboration between the Municipal Disaster Risk Reduction and Management Council and the community during disaster operations. This problem not only increases the risks faced by the community but also hinder the MDRRMC's ability to deliver timely and effective assistance. Overcoming this challenge would be vital as it will fortify the connection between the MDRRMC and the community in building greater cohesion that would foster their strategies of working together in future disaster scenarios.

#### Recommendations

Based on the findings and conclusions, the following recommendations were formulated:

1. The MDRRMC may provide a Handheld Transceiver (HT) to the community by distributing the device in every household which will aid in transmitting their voice or data as radio waves over a specific frequency range especially during disaster operations allowing emergency responders, search and rescue teams, and survivors to stay in contact even without electricity.
2. The Local Government Unit (LGU) may establish an animal shelter for the residents to secure their animals during disaster. Feedback sessions with community members may provide a platform as part of disaster operation, ensuring that disaster plans are inclusive and appropriate.
3. The MDRRMC may conduct comprehensive information dissemination, through flyers, bulletin boards, television, and text messages to ensure wider information distribution.
4. The Barangay and/or Sitio leaders may develop programs and training to help residents prepare by providing essential knowledge and creating local action plans to equip them with the skills to mitigate the effects and impacts of the disasters. These efforts can ensure faster responses, reduce risks, and help the community manage disasters on their own.
5. The researchers highly recommend to the MDRRMC in the local government of Burgos, Ilocos Norte to adopt the action plan entitled "Building Cohesion" to improve strategies in reducing risks and ensuring safety during natural disasters.

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