

# ASSESSMENT ON THE IMPLEMENTATION OF MEASURES AND PRACTICES ON DISASTER RISK REDUCTION AND MANAGEMENT

Justine Paul Iglesia  
School of Education, Criminology, Arts and Psychology  
University of Saint Louis  
Tuguegarao City, Philippines

Ma. Minette Fritzie Marcos  
School of Education, Criminology, Arts and Psychology  
University of Saint Louis  
Tuguegarao City, Philippines

Jamayca Orpilla  
School of Education, Criminology, Arts and Psychology  
University of Saint Louis  
Tuguegarao City, Philippines

**Abstract**— Global warming has increased the frequency of typhoons and hurricanes with strong winds, well as the ensuing marine disasters. Philippines, located in the Pacific Ring of Fire, experiences an average of 20 typhoons every year. For instance, Enrile, a municipality in Cagayan Province located along the Cagayan River, is one of Cagayan's most vulnerable municipalities during disasters as it is prone to flash floods, landslides, and erosion. Hence, this paper aims to determine the implementation of the programs and practices of the Local Government Unit of Enrile in accordance with the National Disaster Risk Management Framework of RA 10121 through the assessment of residents and implementers, respectively. This study utilized mixed-method research employing quantitative and qualitative types, specifically descriptive and basic qualitative research. Consequently, results reveal a significant difference in the assessment of the residents and the implementers. The study concludes that the MDRRMC of Enrile has a high level of implementation in the policies, programs, and activities of Disaster Risk Reduction and Management along its four phases: prevention and mitigation, disaster preparedness and risk reduction, emergency response, and rehabilitation and recovery. Hence, the compliance of different programs, policies, and activities of MDRRMC of Enrile on Disaster Risk and Reduction Management (RA 10121) is high. In addition, the challenges and experiences encountered by the residents and implementers in disaster risk reduction and management include unequal distribution of disaster aid, delayed response and recovery, insufficient warning systems and devices, lack of proper training for DRRM team and rescue operations, and challenges in convincing people to evacuate.

**Keywords**— *Disaster Risk Reduction and Management, Policies and Programs, Local Government Unit, Typhoons, Floods, SDG 11, SDG 13, SDG 3, SDG 17*

## I. INTRODUCTION

Regular natural disasters frequently result in significant loss of life and extensive economic damage. Among these, typhoons pose the greatest threat to the Philippines due

to their destructive winds, flooding, and secondary hazards. The frequency and intensity of these events have increased with global warming, intensifying risks in vulnerable regions (Liu et al., 2013). Owing to its geographic location in the Pacific Ring of Fire, the Philippines experiences an average of 20 typhoons annually, accounting for approximately 25% of the world's total (Donato & Lorica, 2020; Holden & Jacobson, 2012). Between 1970 and 2013, 322 of the 856 tropical storms entering Philippine waters caused damage (NDRRMC, 2014). Recent examples include Typhoon Ulysses in November 2020, which brought unprecedented rainfall to Cagayan Valley, resulting in extensive flooding and an estimated Php 4.95 billion in damage to infrastructure and agriculture (NDRRMC, 2020; Mata et al., 2022).

The municipality of Enrile, Cagayan Province, is particularly vulnerable due to its proximity to the Cagayan River. It frequently experiences flash floods, landslides, and erosion, with remote barangays becoming isolated during typhoons (UNOCHA, 2012). Typhoon Lawin in 2016, one of the most powerful storms to make landfall in the Philippines, caused extensive structural damage in the municipality, with UNITAR-UNOSAT estimating at least 591 damaged structures in Enrile alone (International Charter Space and Major Disasters, 2016). Recognizing such vulnerabilities, the Philippine government has enacted major legislation on climate adaptation and disaster management. The Climate Change Act of 2009 (Republic Act 9729) integrates climate change into national and local planning, while the Philippine Disaster Risk Reduction and Management Act of 2010 (Republic Act 10121) provides a framework for preparedness, mitigation, response, and recovery (Domingo, 2014). These policies establish national and local DRRM councils, mandate horizontal and vertical cooperation, and require LGUs to allocate at least 5% of their income to disaster risk reduction activities (Cruz, 2014).

The effectiveness of these laws, however, depends heavily on LGU-level implementation.

Despite these frameworks, significant gaps persist in practice. Studies have identified challenges including inadequate resources, insufficient technical capacity, weak coordination among institutions, low community awareness, and limited integration of science-based disaster prediction and preparedness (Matyas & Pelling, 2015). These barriers often result in delays in early warning, fragmented response efforts, and underutilization of disaster funds.

This study, therefore, seeks to examine the policies, programs, and activities of the Local Government Unit of Enrile, particularly at the barangay level, in relation to Republic Act 10121. Specifically, it aims to assess the extent of compliance with DRRM mandates and identify areas requiring stronger support. The study is directly aligned with the United Nations Sustainable Development Goals, particularly SDG 11 (Sustainable Cities and Communities), which emphasizes resilience to disasters; SDG 13 (Climate Action), which calls for strengthened adaptive capacity to climate-related hazards; and SDG 3 (Good Health and Well-being), which relates to minimizing disaster-related injuries and fatalities. It also supports SDG 17 (Partnerships for the Goals) by underscoring the importance of collaboration between national agencies, LGUs, and communities. By situating local DRRM efforts within the global SDG framework, the research highlights the critical role of local governance in reducing risks, protecting lives, and building resilience in disaster-prone communities.

## II. METHODS

This study employed a multi-method design combining quantitative and qualitative approaches, specifically descriptive research and basic qualitative research as described by Merriam and Tisdell (2016). The descriptive method was used to assess the level of implementation of disaster risk reduction and management (DRRM) in the municipality of Enrile, while the qualitative approach was applied to capture the issues and challenges encountered in the implementation of DRRM programs. The study was conducted in Enrile, Cagayan, with disaster-prone communities identified by the Municipal Disaster Risk Reduction and Management Council (MDRRMC), particularly San Jose, San Roque, and Villa Maria. Two groups of respondents participated in the research: residents who had lived in the municipality for more than ten years and had direct experience with DRRM implementation, and LGU officials from the MDRRMC who were responsible for implementing DRRM policies and activities. Purposive and quota sampling were employed, with thirty residents per barangay invited to participate, selected based on availability, accessibility, and consent.

Three instruments were used in the study. The first was a checklist adapted from the provisions of Republic Act 10121, the Philippine Disaster Risk Reduction and

Management Act of 2010, covering the four phases of DRRM: prevention and mitigation, preparedness and risk reduction, emergency response, and rehabilitation and recovery. Responses were rated on a five-point scale corresponding to levels of implementation. The second was a survey questionnaire administered to residents to assess their perspectives on DRRM implementation, while the third consisted of semi-structured interviews with residents and LGU officials to capture their challenges, experiences, and recommendations. Data collection was conducted in the communities and households of the respondents. Permission to conduct the study was secured from the municipal mayor and the barangay captains, and respondents were individually assisted in completing the questionnaire. Ethical protocols were strictly followed, including obtaining informed consent, ensuring voluntary participation, maintaining anonymity and confidentiality, and minimizing potential biases in both data collection and analysis.

Quantitative data were analyzed using descriptive and inferential statistics. The weighted mean was applied to measure the level of DRRM implementation using the following ranges: 4.50–5.00 (Fully Implemented), 3.50–4.49 (Highly Implemented), 2.50–3.49 (Implemented), 1.50–2.49 (Less Implemented), and 1.00–1.49 (Not Implemented). To determine whether significant differences existed between the assessments of residents and LGU implementers, an independent samples t-test was employed. Meanwhile, qualitative data from interviews were subjected to thematic analysis to generate recurring themes on issues, challenges, and lived experiences related to the implementation of DRRM in Enrile. This integrated analysis provided a comprehensive understanding of both the extent of compliance with RA 10121 and the contextual barriers affecting DRRM implementation at the local level.

## III. RESULTS AND DISCUSSION

Table 1. Level of implementation on the different programs, policies, and activities related to Disaster Risk Management and Mitigation

DRRM PHASES	RESIDENTS		IMPLEMENTERS	
	MEAN	QD	MEAN	QD
Prevention and Mitigation	3.73	Highly Implemented	4.29	Highly Implemented
Disaster Preparedness and Risk Reduction	4.02	Highly Implemented	4.31	Highly Implemented
Emergency Response	4.11	Highly Implemented	4.40	Highly Implemented

Rehabilitation and Recovery	3.91	Highly Implemented	4.39	Highly Implemented
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Early warning mechanism.	3.75	Highly Implemented	4.5	Fully Implemented
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Table 1 shows the level of implementation of the different phases of Disaster Risk Management as assessed by the residents and implementers. The results revealed that Disaster Risk Management and Mitigation practices, as stipulated in R.A 10121, are highly implemented in the Municipality of Enrile. Overall, the MDRRM of Enrile is actively implementing the Disaster Risk Management and Mitigation policies and programs. Each community in the Philippines upholds the right to address the root causes of disaster risk factors within their locale by bolstering the community's organizational capacity for disaster risk reduction and management and building resilience among the residents of the locale as one of the basic preparations in disaster situations (Viloria, 2012). According to RA 10121, the local government unit serves one of the most significant functions in disaster risk management. The results of the study indicated that the Disaster Risk Management and Mitigation activities outlined in RA 10121, also referred to as the Disaster Risk Reduction Management Act of 2010, are highly implemented in the municipality of Enrile.

Table 1a. Level of Implementation of activities under Prevention and Mitigation

Activities	RESIDENTS		IMPLEMENTERS	
	Mean	QD	Mean	QD
Hazard Mapping and urban planning.	3.64	Highly Implemented	4.78	Fully Implemented
Education and Awareness.	4.09	Highly Implemented	4.42	Highly Implemented
Sufficient shelter food & clothes.	4.2	Highly Implemented	4.5	Fully Implemented
Antibiotics and medical kits.	4.02	Highly Implemented	3.85	Highly Implemented
Transportation to help the affected people.	3.94	Highly Implemented	4.85	Fully Implemented
Community involvement and participation.	4.10	Highly Implemented	4.5	Fully Implemented
Checking the infrastructures.	3.73	Highly Implemented	4.07	Highly Implemented
Declogging of waterways and canals.	2.92	Moderately Implemented	3.78	Highly Implemented
Dredging of rivers.	2.85	Moderately Implemented	3.64	Highly Implemented

Table 1a presents the implementation levels of prevention and mitigation activities, as assessed by residents and implementers. According to resident assessments, the findings indicate that most DRRM activities are highly implemented. These activities include community involvement, education and awareness initiatives, and distribution of antibiotics and medical kits. Conversely, residents assess hazard mapping, declogging of waterways and canals, and dredging of rivers as implemented to a lesser extent. On the other hand, implementers consider transportation, hazard mapping, and early warning mechanisms to be highly implemented. In contrast, implementers evaluate the dredging of rivers, declogging of waterways and canals, and distribution of antibiotics and medical kits as implemented to a lesser degree. Disasters, both natural and human-induced, have the potential to cause immense destruction, loss of life, and economic disruption. While it may be impossible to eliminate the occurrence of disasters, effective prevention and mitigation strategies can significantly reduce their impact. Disaster risk reduction and management, encompassing prevention and mitigation efforts, is vital in safeguarding communities, minimizing damage, and saving lives. Preventing disasters and mitigating disaster loss through government expenditure is an essential disaster management strategy (Wu & Guo, 2021). Overall, the study reveals that the MDRRM of Enrile is active in implementing prevention and mitigation activities and policies.

In addition, the study further reveals that prior to the typhoon, the Municipal Disaster Risk Reduction and Management (MDRRM) office of Enrile takes proactive measures to prevent and mitigate the impact of the typhoon. These measures include conducting hazard mapping, assessing infrastructure condition, and preparing evacuation centers along with necessary equipment. This finding reinforces the notion that municipalities with comprehensive disaster management plans, resources, and assistance are better equipped to implement them effectively (Florano, 2014).

Table 1b Level of Implementation of Activities under Emergency Preparedness and Risk Reduction

Activities	RESIDENTS		IMPLEMENTERS	
	Mean	Qualitative Descriptive	Mean	Qualitative Descriptive
Organization of team working on risk reduction.	4.16	Highly Implemented	4.42	Highly Implemented
The warning systems are in place to the community level.	4.07	Highly Implemented	4.07	Highly Implemented

The team made an official warning.	3.94	Highly Implemented	4	Highly Implemented
Evacuation centers are provided for the community.	4.14	Highly Implemented	4.14	Highly Implemented
Plans and maps have been made in advance.	3.80	Highly Implemented	4.64	Fully Implemented
Conduct of community- based programs on disaster risk reduction.	4.08	Highly Implemented	4.57	Fully Implemented
The disaster awareness and public information projects or programmes being undertaken to the community.	3.94	Highly Implemented	4.21	Highly Implemented
Availability of funds for disaster risk reduction and preparedness.	4.02	Highly Implemented	4.78	Fully Implemented

Table 1b shows the assessment of residents and implementers regarding the level of implementation of emergency preparedness and risk reduction activities. According to resident evaluations, all activities in this category are highly implemented. However, implementers assessed three specific activities—the development of plans and maps in advance, community- based programs on disaster risk reduction, and availability of funds for disaster risk reduction and preparedness—as fully implemented. In an increasingly complex and uncertain world, it is imperative to prioritize preparedness and risk reduction measures to mitigate the impact of disasters. Preparedness refers to the actions taken to anticipate, plan for, and effectively respond to potential disasters, while risk reduction focuses on minimizing vulnerabilities and enhancing the community resilience. During the period of preparedness and risk reduction, the potentially disastrous impacts of a disaster are reduced (Kunz et al., 2014). Based on the results of the study, it revealed that the MDRRM highly implements preparedness and risk reduction phase. The findings indicate that the Municipal Disaster Risk Reduction and Management (MDRRM) office of Enrile demonstrates preparedness before typhoons strike. The MDRRM team proactively engages in risk reduction efforts, including the establishment of evacuation centers for potential residents in need, creation of effective emergency warnings that are well-understood by the community, availability of evacuation maps, and implementation of disaster awareness and public information programs. However, it has been observed that the

MDRRM team lacks adequate training in rescue operations. Therefore, conducting comprehensive rescue training sessions for both the MDRRM team and the barangays is crucial in enhancing their preparedness and response capabilities. The study contradicts the findings of Dariagan et al. (2020), which suggested that many local governments have low levels of disaster preparedness and response capabilities. Conversely, the Municipal Disaster Risk Reduction and Management (MDRRM) Office of Enrile aligns with the findings of Kunz et al. (2014), demonstrating that effective disaster preparedness reduces the impact of calamities and enhances the efficiency of relief assistance in barangays.

Table 1c Level of Implementation of Activities under Emergency Response

Activities	RESIDENTS		IMPLEMENTERS	
	Mean	Qualitative Descriptive	Mean	Qualitative Descriptive
Relief operation	4.41	Highly Implemented	4.78	Fully Implemented
Providing aid for the people who are in imminent danger by the search and rescue team.	4.42	Highly Implemented	4.85	Fully Implemented
Dissemination/ Information sharing of disaster related information.	4.10	Highly Implemented	4.71	Fully Implemented
Development/provision of temporary shelter.	4.09	Highly Implemented	4.64	Fully Implemented
Health service.	4.2	Highly Implemented	4.5	Fully Implemented
Early recovery mechanism.	3.90	Highly Implemented	4.35	Highly Implemented
Management of dead and missing.	3.70	Highly Implemented	4.21	Highly Implemented
Evacuation management.	4.22	Highly Implemented	4.64	Fully Implemented
Social protection intervention.	4.04	Highly Implemented	4.5	Fully Implemented
Civil & uniformed services coordination.	4.02	Highly Implemented	4.5	Fully Implemented

Table 1c displays the assessment of residents and implementers on the implementation level of emergency response activities. According to resident evaluations, all activities in this category are highly implemented. However, implementers considered only two activities, specifically, the early recovery mechanism and management of the deceased and missing, as highly implemented, while the remaining activities were assessed as fully implemented. The Emergency Response phase is a critical stage of the disaster risk reduction and management cycle, encompassing actions taken before, during, and immediately after a disaster to minimize its impacts and provide prompt assistance and support to those affected (Kulatunga, Thayaparan, & Al-Dahash, 2016). It is a multifaceted process that requires strategic planning, preparedness, and coordinated action. The collective efforts of government agencies are crucial in ensuring public safety and promoting resilience. The study's findings indicate that Enrile's Municipal Disaster Risk Reduction and Management Council (MDRRMC) demonstrates a high level of activity implementation during the emergency response phase. Specifically, during typhoons, the MDRRMC of Enrile engages in relief operations, disseminates disaster-related information to the barangays, conducts search and rescue operations, provides health services, and coordinates with civil and uniformed services. These actions exemplify the commitment and effectiveness of the MDRRMC in responding to emergencies and ensuring the community's welfare.

Table 1d Level of Implementation of Activities under Rehabilitation and Recovery

Activities	RESIDENTS		IMPLEMENTERS	
	Mean	Qualitative Descriptive	Mean	Qualitative Descriptive
Search and retrieval of people lost.	3.94	Highly Implemented	4.57	Fully Implemented
Shelter/Relocation for affected victims.	4.22	Highly Implemented	4.5	Fully Implemented
Psycho Social Counseling for affected victims.	3.31	Moderately Implemented	4.28	Highly Implemented
Infrastructure and Relocation plan of structures that had been destroyed.	3.9	Highly Implemented	4.21	Highly Implemented
Recovery of damaged Environment.	4.16	Highly Implemented	4.28	Highly Implemented

Table 1d presents the assessment of residents and implementers regarding the implementation levels of activities related to rehabilitation and recovery. According to the assessment of residents, the results indicate that activities such as relocation of affected victims, recovery of the damaged

environment, and search and retrieval of missing individuals are assessed more favorably. However, residents consider the relocation plan and psycho- social counseling for affected victims to a lesser extent. On the other hand, according to the assessment of implementers, search and retrieval of missing individuals and relocation of affected victims are considered higher in terms of implementation. Contrarily, the remaining activities are assessed to a lesser degree by implementers. The primary purpose of post-disaster recovery is to get back to normal. Rehabilitation and recovery can be measured by restoring the environment to its pre-disaster state or reconstructing buildings or infrastructure damaged by the disaster (Chang, 2011). Based on the results of the study, the MDRRMC of Enrile is active in implementing disaster management rehabilitation and recovery measures. Furthermore, the result of the study revealed that the MDRRMC of Enrile highly implemented the activities that led to the effective and quick recovery of Enrile following a disaster. The activities include relocation of affected victims, infrastructure and relocation plan of structures that had been destroyed, and recovery of damaged environment. These post-disaster recovery efforts have aimed to increase the community's resilience through well- designed plans for its implementation (Mutter & Luchi, 2020). The more the community owns disaster management plans, aids, and resources, the easier it is to implement them (Florano, 2014).

Table 2. Significant difference in the level of implementation of disaster risk reduction and management activities as assessed by the residents and implementers

GROUP	Mean	t-value	p-value	Decision
Implementers	4.35	2.087	.038	Reject Ho
Residents	3.94			

The table presents a significant difference in the level of implementation of Disaster Risk Management activities as assessed by the residents and implementers. It can be gleaned on the result that there is a significant difference in the level of implementation of Disaster Risk Management as assessed by the residents and implementers since the probability value is lower than 0.05 level of significance. Hence the null hypothesis is rejected. The results revealed that the assessment of residents on the disaster risk reduction and management activities is lower than the assessment of the implementers. Furthermore, the result revealed a significant difference in the level of implementation of Disaster Risk Management as assessed by the residents and implementers. The study revealed that the Municipal Disaster Risk Reduction and Management Council (MDRRMC) of Enrile, the office that implements the DRRM plan, assessed its own implementation higher than the assessment given by the residents, being the receiver of the implemented DRRM activities and programs. Moreover, the significant difference in the level of implementation of the DRRM of Enrile as assessed by the implementers and residents exists due to the higher assessment of the implementers themselves. This implies that the implementers, being the primary provider of DRRM programs and measures, are highly satisfied with their performance and the outcomes they render to their stakeholders.

Hence, they believe that the DRRM plan is highly-implemented. The findings affirmed the study of Cruz (2014) that most LGUs assessed their disaster risk reduction and management in all the cycles of disaster prevention and mitigation, preparedness, response, and recovery as very prepared and satisfied. On the other hand, the residents, being the immediate receiver of the DRRM practice, assessed the level of implementation of DRRM plan on a lower level compared to the assessment of the implementers. This implies that the implemented programs and practices under DRRM are facing some irregularities and challenges in the perception of the residents who serve as the beneficiary of the same. The lower assessment of residents emphasizes the particular areas or challenges that need further improvement from the implementers.

### **Challenges in the Implementation of Disaster Risk Reduction Management**

On the latter part of the study, the challenges faced by both the residents and the implementers in the implementation of the DRRM of Enrile, Cagayan, Philippines were determined through an interview. However, only the residents have given the particular challenges they face in implementing the same. Whereas, after a thorough review of the individual responses of the interviewees, the common information and similar answers obtained were categorized into themes. The following results reveal the different challenges faced by both the implementers and respondents during the implementation of the Disaster Risk Reduction and Management Plan.

#### **a. Insufficient Warning Systems and Devices**

Prevention and mitigation phases include essential action plans that prioritize efforts centered on hazard evaluation and mitigation, vulnerability assessments, and risk assessments. These phases focus on a thorough investigation on the various elements that lead to people's susceptibility. As a result, they are vulnerable and are exposed to dangers and calamities which includes the dissemination of information and warnings regarding the occurrence of a typhoon, its severity, and possible effects on particular areas (NDRRMC Plan, 2011). The dissemination of such information and warning suggests the utilization of sufficient warning systems and devices, such as local radios, and television stations, weather radios, outdoor warning sirens, megaphones, and others (Dela Cruz, 2016). However, this study illustrates that one of the specific problems faced by the residents of Enrile Cagayan, Philippines when it comes to their LGU's implementation is the insufficient warning systems and devices. They have revealed that although information about possible calamities are announced through radio or television, the only warning system utilized by the barangays during disasters are megaphones. Hence, it takes longer time for announcements or warnings to reach particular areas.

#### **b. Challenges in Convincing People to Evacuate**

The critical factors that affect the preparedness and readiness of Filipinos are access to information, especially about the evacuation plan. Hence, the necessity to ensure the mobility of people during disasters (Laingo et al., 2022). Evacuating people

residing in areas susceptible to flooding and heavy winds and rainfall must be ensured to prevent casualties and injuries (Lobaton, 2018). However, this study illustrates that one of the specific problems faced by the residents of Enrile Cagayan, Philippines when it comes to their LGU's implementation of DRRM is the challenge of convincing specific residents to evacuate. The respondents reveal that some members of the community, despite receiving enough warnings about the occurrence of typhoon and call for evacuation, refuse to leave their houses that are susceptible to flooding. Therefore, some residents decide to evacuate only when the water level starts to rise or submerge their houses.

#### **c. Lack of Proper Training for DRRM Team and Rescue Operations**

Rescue operations play an essential part in the phase of disaster response, which aims to produce shelter and help disaster victims as quickly and effectively as possible (Rawls & Turnquist, 2010). The effort to give these necessities to the victims must be organized rapidly via a dependable communication network. Typically, disaster rescue operations comprise many phases, including establishing communication systems, conducting search and rescue operations, and providing essential first aid services (Narayanan & Ibe, 2015). However, this study illustrates that one of the specific problems faced by the residents of Enrile, Cagayan, Philippines when it comes to their LGU's implementation is the lack of proper training for DRRM team and rescue operations as the authorities lack enough strategies to organize the logistics and routes for rescue and relief activities. The respondents believe that the rescue teams should improve their logistics planning, organize the essential resources and relief goods, plan the places for the distributions of goods, and improve the transportation of evacuees and other resources.

#### **d. Unequal distribution of Disaster Aid**

In typhoon crises, food, water, and monetary and medical help are required, and the effort to provide these aids to the victims must be organized (Narayanan & Ibe, 2015). The provision of these necessities is a part of the disaster response that must be executed during calamities in order to aid in the immediate needs of the affected families and individuals (Browner & Dilling, 2014). However, in the conduct of this study, it has been found that one of the specific problems faced by the residents of Enrile, Cagayan, Philippines when it comes to their LGU's implementation, is the unfair distribution of disaster aid. It has been enunciated by the residents that the relief goods, such as food and water, albeit enough, were not proportionately distributed according to the number of individuals or families living in a household. Moreover, the monetary aids that are intended for the reconstruction of houses were not objectively given according to the level of deterioration or destruction of houses or parts thereof, brought by typhoons. As a result, the residents do not cope similarly with their losses.

#### **e. Delayed Response and Recovery**

Disaster response is one of the phases of disaster risk reduction and management that plays a role during or following a disaster. According to Sec. 3 of R.A. 10121, an act of providing

emergency response is the immediate action in order to help people who have been injured, to lessen its impact, and to provide basic necessities to those affected. Therefore, a quick assistance and support is needed in order to ensure that the impacts of the disaster is minimized; hence, the necessity to lead, organize, and regulate it efficiently (Kulatunga, Thayaparan & Al-Dahash, 2016). On the other hand, this study illustrates that one of the specific problems faced by the residents of Enrile, Cagayan, Philippines when it comes to their LGU's implementation is the delayed response and recovery. The respondents expressed that in the past years, they have faced a slow delivery of response during calamities, such as the delayed provision of food and transport of affected families to evacuation centers. It has been specified that the insufficient number of rescue personnel to cater to the needs of residents somehow impedes the provision of supposedly urgent and immediate response and recovery, such as the rebuilding of houses, restoration of, and reconstruction of public utilities.

#### IV. CONCLUSION AND RECOMMENDATIONS

Local government plays a significant role before, during, and after disasters since they do not only have direct control over their constituents, but they also have a responsibility to grasp the community's needs. They are responsible for monitoring all four stages of emergency management—preparedness, response, recovery, and mitigation—regardless of the size of the community or the type of disaster that occurred. The government assists in the immediate aftermath, funds, and direction for long-term recovery and mitigation. In light of the findings of this research, it shows that there is a significant difference in the assessment of the residents and the implementers. The study concludes that the MDRRMC of Enrile has a high level of implementation in the policies, programs, and activities of Disaster Risk Reduction and Management along its four phases: prevention and mitigation, disaster preparedness and risk reduction, emergency response, and rehabilitation and recovery. Hence, the compliance of different programs, policies, and activities of MDRRMC of Enrile on Disaster Risk and Reduction Management (RA 10121) is high. In addition, the challenges and experiences encountered by the residents and implementers in disaster management include unequal distribution of disaster aid, delayed response and recovery, insufficient warning systems and devices, lack of proper training for DRRM team and rescue operations, and challenges in convincing people to evacuate.

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