



Strategies and Practice in Disaster Response Management of Lagonoy Camarines Sur: Inputs for Participatory DRRM Planning

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ABSTRACT. This descriptive-quantitative study investigates the strategies and practices in disaster response management implemented by the local government of Lagonoy, Camarines Sur, Philippines with the aim of providing valuable inputs for participatory Disaster Risk Reduction and Management (DRRM) planning. Given the municipality's vulnerability to natural hazards such as flash floods and landslides due to continuous heavy rainfall, the study seeks to assess the effectiveness of existing response measures and identify areas for improvement. The research focuses on key aspects of disaster response, including prevention and mitigation, preparedness, response, and recovery efforts. It evaluates how local strategies align with national policies, such as Republic Act 10121 or the Philippine DRRM Act of 2010, and their effectiveness in addressing the immediate and long-term needs of affected communities. Moreover, the study highlights the role of community participation in enhancing resilience and ensuring a more inclusive and adaptive DRRM approach. Findings from this study will serve as a basis for strengthening local DRRM strategies by integrating participatory planning methods that empower communities and stakeholders. Recommendations will focus on improving coordination, resource allocation, and capacity-building efforts to enhance disaster preparedness and response in Lagonoy, ultimately contributing to a more resilient and proactive community.

KEYWORDS: *Strategies, Practice, Disaster Response Management*

INTRODUCTION

In recent years, natural disasters have become more frequent and more severe, and this trend is anticipated to continue because of climate change in the years to come. According to Zubair Ahmed (2013), this has led to an increase in human suffering. Although risks to humans from natural hazards cannot be eliminated, they can be minimized through methodical strategies such as disaster risks reduction (DRR) strategies, which can be applied scientifically to reduce vulnerability and foster societal resilience through multi-sectoral and multi-dimensional measures. Natural or man-made disasters continue to pose a significant obstacle to achieving global sustainability, Sani Abubakar Mashi, Obaro Dominic Oghenejabor, and Amina Ibrahim Inkani in 2019. Disasters including destructive storms, desertification, drought, and flood are common, it is widely acknowledged that policies and practices must be improved to minimize the risk of disasters, and one method to do this is to guarantee that laws are put in place to ensure that DRR (Disaster Risk Reduction) policies are effectively integrated into disaster management procedures. Jurisch, M., and Wittmann, S. Krcmar, H. & (2015). also, environmental hazards have become more prevalent over the past few decades, endangering both people and property. Floods brought on by torrential rain are just one example of the increased frequency and intensity of natural disasters. O. Patterson and F. Weil & K. Patel (2010) Community-based participatory researchers have embraced this concept of community, which is seen to give a more proactive and advocacy-focused approach. We finish up by talking about the benefits and drawbacks of community involvement in disaster response and disaster research.

A worldwide policy goal has been taken to advance Target E's progress and increase the number of local and national DRR strategies, but less focus has been placed on how these strategies can or should take context into account, particularly situations affected by violent conflict. Comfort, L. K., Ko, K., & Zagorecki, A. (2004). In a real disaster response system, the dynamic between falling capacity and rising demand determines how fragile the system is and when it will break. The network of responding organizations can more effectively coordinate their responses due to access to key information. Paton, D. and Jackson, D. (2002). Planning for disaster readiness requires the creation of training programs to make up for the few possibilities for gaining practical experience in disaster response. The planning tool for integrating and mainstreaming a DRR approach inside local development, as well as for guiding and creating cogent local plans and activities, is a local disaster risk reduction and resilience strategy. There is no greater necessity, according to Nowell, B. et al. (2017), than when creating systems for handling complex disasters, to comprehend design concepts that can foster the flexibility and

resilience of complex organizational systems operating in uncertain and turbulent situations. It begins by outlining a shared knowledge of disaster risk, and then specifies policies and goals to stop the occurrence of new risks, lessen those that already exist, recover from disasters, and increase resilience in the areas of the economy, society, health, and the environment. Plans and activities are developed in accordance with the strategy. Having an effective and cogent response that is in keeping with established strategic objectives is the main objective of planning institutional responses to changing risks, threats, or specific incidents. Malla, SB, et al., It establishes a workable strategy and serves as a starting point. It is created with a long-term vision, but it also includes some flexibility and regular evaluation procedures to capitalize on learning and adapt to changes in intricate global processes. These patterns motivated the researchers to identify the strategies and procedures used by the municipal administration of Lagonoy, Camarines Sur, in managing disaster response.

The Philippines is among the most disaster-prone countries in the world, frequently experiencing typhoons, earthquakes, volcanic eruptions, floods, and landslides due to its geographical location in the Pacific Ring of Fire and typhoon belt. In particular, the Bicol Region, including the municipality of Lagonoy in Camarines Sur, is consistently affected by natural disasters that disrupt lives, damage infrastructure, and hinder socio-economic development. These frequent hazards necessitate an efficient, well-coordinated, and inclusive approach to disaster response and management. Disaster Risk Reduction and Management (DRRM) has evolved in recent years to emphasize not only preparedness and mitigation but also community participation. In the Philippines, the implementation of Republic Act No. 10121, or the Philippine Disaster Risk Reduction and Management Act of 2010, has mandated local government units (LGUs) to develop localized and participatory DRRM plans. However, the effectiveness of disaster response strategies still varies widely among municipalities due to differences in resources, training, coordination, and community involvement.

The Municipality of Lagonoy, located in the eastern part of Camarines Sur, is one of the localities highly susceptible to natural hazards such as flash floods, landslides, and storm surges due to its geographical location and climatic conditions. While its vulnerability is well-recognized, there remains a research gap in understanding how local DRRM strategies are operationalized, particularly in terms of community participation, equitable resource allocation, and localized policy implementation. Existing studies on disaster management in the Bicol Region often focus on hazard mapping, preparedness, or response outcomes but seldom analyze the integration of participatory mechanisms within local DRRM structures. This lack of

comprehensive assessment limits opportunities for evidence-based improvement in disaster governance at the community level.

Moreover, anecdotal, and observational accounts suggest that disaster response initiatives in Lagonoy are often centrally coordinated by local authorities, with limited engagement of community-based organizations and sectoral stakeholders. This top-down approach can lead to uneven resource distribution, gaps in coordination among barangays, and reduced local ownership of DRRM programs. There is also limited documentation on how national policies such as those outlined in RA 10121 are translated into context-specific actions at the municipal and barangay levels.

Hence, this study was undertaken to examine the strategies and practices in disaster response management implemented by the LGU of Lagonoy, Camarines Sur, and to identify opportunities for integrating participatory planning approaches into its DRRM framework. By assessing existing measures across the areas of prevention and mitigation, preparedness, response, and recovery, the research aims to evaluate both the effectiveness and inclusiveness of current DRRM practices. The findings will provide valuable insights for enhancing participatory DRRM planning that promotes shared responsibility, equitable resource management, and stronger community resilience in Lagonoy and similar coastal-mountainous municipalities in the Philippines.

CONCEPTUAL FRAMEWORK

This study is anchored on the Philippine Disaster Risk Reduction and Management Act of 2010 (RA 10121), which mandates Local Government Units (LGUs) to formulate, implement, and evaluate disaster risk reduction and management (DRRM) plans, programs, and activities to ensure the safety and resilience of their constituents.

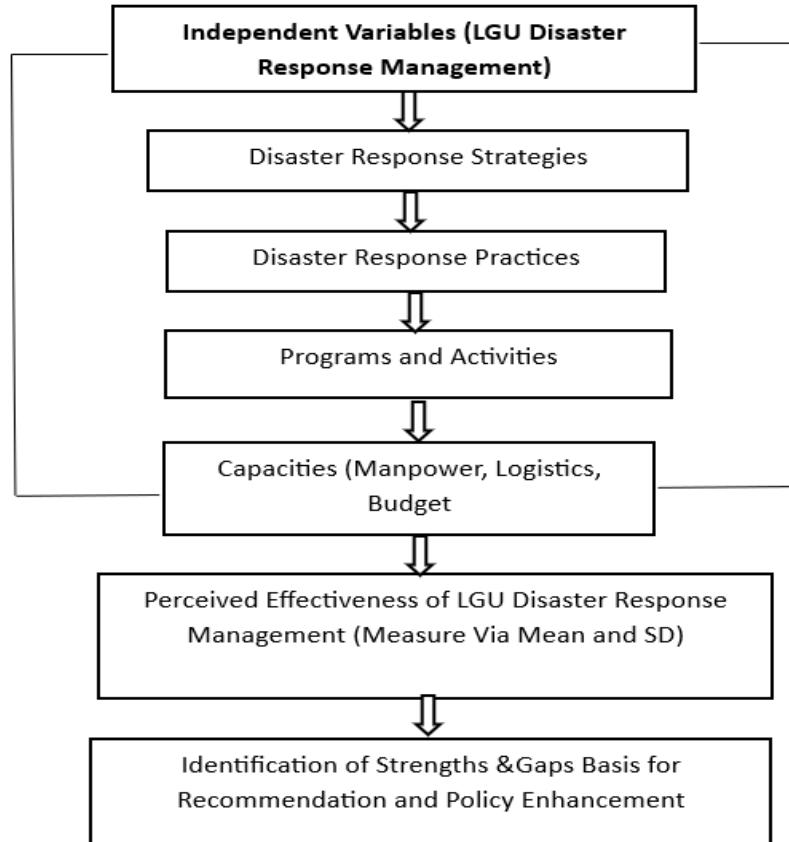


Figure 1 – Conceptual Framework

The conceptual framework is built on the idea that effective disaster response management is determined by the integration of four major components: strategies, practices, programs and activities, and LGU capacities. These elements serve as the independent variables, representing the LGU's operational mechanisms in disaster response: Disaster Response Strategies – this pertains to the plans, protocols, and coordination mechanisms adopted by the LGU before, during, and after a disaster. Disaster Response Practices – means the actual procedures and actions implemented on the ground, including early warning dissemination, evacuation drills, and rescue operations. Programs and Activities – are all organized efforts such as relief distribution, emergency medical services, and community education campaigns. While, Capacities – this refers to the available resources, including manpower, logistics, budget allocation, and equipment, which enable the LGU to carry out its disaster response duties.

The dependent variable is the perceived effectiveness of disaster response management, as measured by the level of agreement of barangay officials, community leaders, emergency responders, and residents using a five-point Likert scale. Statistical treatment of responses (mean and standard deviation) provides a quantitative basis for evaluating strengths and weaknesses. The findings derived from this framework serve as the basis for identifying gaps

and formulating actionable recommendations to enhance LGU disaster preparedness, improve coordination among stakeholders, and strengthen local resilience against future disasters.

General Objectives

This study aimed to assess the strategies and practice in disaster response management in the municipality of Lagonoy, Camarines Sur.

Specific Objectives

1. Determine the strategies and practice in disaster response management of LGU Lagonoy
2. Identify the program /projects/activities in disaster response management of LGU Lagonoy
3. Determine the capacities of local government unit in disaster response management

Scope and Limitations

This study will focus on the strategies and practices of disaster response management in the municipality of Lagonoy, Camarines Sur. It will cover key areas such as disaster prevention and mitigation, which aim to reduce risks by minimizing vulnerabilities, decreasing exposure, and strengthening community capacities to withstand potential hazards. The study will also examine disaster preparedness efforts to help communities anticipate, cope with, and recover from emergencies and disasters. Additionally, it will explore disaster response initiatives designed to preserve lives and provide essential needs to affected populations in accordance with established standards, both during and immediately after a disaster. Lastly, the study will address disaster rehabilitation and recovery efforts, focusing on restoring and improving infrastructure, livelihoods, and overall living conditions while enhancing the resilience of affected communities, following the “building back better” approach.

METHODOLOGY

This study employed a descriptive-quantitative research design to examine the strategies and practices in disaster response management implemented by the Local Government Unit (LGU) of Lagonoy, Camarines Sur. The research focused on assessing the effectiveness, inclusiveness, and alignment of local DRRM strategies with national policies and community needs. A structured survey questionnaire was the primary data-gathering instrument, developed

based on the guidelines of the Philippine Disaster Risk Reduction and Management Act (RA 10121) and validated by experts in disaster management and public administration. The questionnaire was divided into four sections, covering disaster response strategies, practices, programs, and activities, and LGU capacities.

A total of 1,148 respondents were selected through purposive sampling, representing the key stakeholders of the municipality's disaster risk reduction and management system. This sampling method was deemed appropriate because the study sought to obtain insights specifically from individuals and groups directly involved in or affected by DRRM activities. The respondents included barangay officials, members of Barangay DRRM Committees, LGU department heads, emergency responders, educators, and community representatives from hazard-prone areas. Data collection was carried out through face-to-face administration of questionnaires with the assistance of enumerators trained in ethical research protocols.

The use of purposive sampling ensured that participants possessed firsthand experience, technical knowledge, or decision-making roles relevant to disaster response and recovery operations. Their inclusion provided a comprehensive perspective on the municipality's preparedness, coordination mechanisms, and community engagement practices. By capturing the views of those actively engaged in disaster management at both the institutional and grassroots levels, the study was able to generate meaningful insights that reflect the actual dynamics and challenges of DRRM implementation in Lagonoy, Camarines Sur.

Responses were measured using a five-point Likert scale (1- Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree, 5 - Strongly Agree) Descriptive statistics, specifically mean and standard deviation, were used to determine the level of agreement of respondents regarding LGU strategies and capacities. Interpretation of means followed standard descriptive equivalence (1.00–1.80 - Strongly Disagree, 1.81–2.60 - Disagree, 2.61–3.40 - Neutral, 3.41–4.20 - Agree, 4.21–5.00 - Strongly Agree).

To ensure data reliability, the instrument underwent pilot testing, and internal consistency was measured using Cronbach's alpha, yielding values above the acceptable threshold of 0.70. Data were processed and analyzed using SPSS software to compute frequency distributions, means, and standard deviations. The results provided a quantitative assessment of the strengths and gaps in the disaster response management of the LGU, forming the basis for interpretation, conclusions, and recommendations.

RESULTS AND DISCUSSIONS

Disaster response management strategies and practices of Local Government Units (LGUs), such as those in Lagonoy, Camarines Sur, are critical given the country's vulnerability to typhoons, floods, earthquakes, and other climate-related hazards. The findings highlight that the LGU prioritizes preparedness through training, equipment provision, and coordination, reflecting compliance with the mandates of the Philippine Disaster Risk Reduction and Management Act of 2010 (RA 10121). However, challenges in areas like financial assistance, post-disaster recovery, livelihood support, and health services reveal the persistent gaps faced by many LGUs nationwide, particularly those in resource-constrained rural communities. Strengthening community participation, ensuring sustainable funding, and integrating long-term recovery initiatives are essential in building resilience, aligning with the national framework that emphasizes a whole-of-community approach to disaster risk reduction and management.

Table 1 Disaster Response Strategies of LGU Lagonoy, Camarines Sur

In this table 1 presents the Disaster Response strategies of LGU Lagonoy, Camarines Sur, Philippines. The findings reveal that the Local Government Unit (LGU) of Lagonoy demonstrates generally strong disaster response strategies, with mean ratings ranging from 3.33 to 3.85. Several key areas were rated "Strongly Agree", indicating high effectiveness. These include the provision of sufficient training for emergency responders (M - 3.84, SD - 3.56), the equipping of emergency response teams with necessary resources (M - 3.83, SD - 3.56), and the timely dissemination of disaster-related information (M - 3.85, SD - 3.58). These results suggest that the LGU prioritizes capacity building, preparedness, and communication mechanisms during disaster events.

No	Disaster Response Strategies	Mean	SD	Description
1	The LGU has an effective early warning system.	3.51	3.52	Agree
2	Disaster preparedness programs are regularly conducted.	3.83	3.56	Agree
3	The LGU provides sufficient training to emergency responders.	3.84	3.56	Strongly Agree
4	Emergency response teams are well-equipped with necessary tools and resources.	3.83	3.56	Strongly Agree
5	The LGU ensures timely dissemination of information during disasters.	3.85	3.58	Strongly Agree
6	Coordination with local and national agencies is effective.	3.45	3.41	Agree
7	The LGU has established evacuation plans for various disaster scenarios.	3.73	3.46	Agree
8	The community is actively involved in disaster preparedness efforts.	3.34	3.33	Neutral

9	Relief and aid distribution is efficiently managed during emergencies.	3.36	3.35	Neutral
10	Post-disaster recovery programs are effectively implemented.	3.33	3.36	Neutral
11	The LGU conducts regular disaster risk assessments.	3.75	3.48	Agree
12	The LGU allocates sufficient budget for disaster response management.	3.73	3.46	Agree
13	The LGU provides continuous training and updates on disaster management policies.	3.81	3.53	Agree
14	Public awareness campaigns on disaster risks and response strategies are regularly conducted.	3.71	3.44	Agree
15	The LGU collaborates with non-government organizations in disaster management efforts.	3.34	3.36	Agree

Meanwhile, other aspects such as the conduct of regular disaster preparedness programs (M - 3.83, SD - 3.56), disaster risk assessments (M - 3.75, SD - 3.48), budget allocation for disaster response (M = 3.73, SD - 3.46), continuous training on disaster management policies (M - 3.81, SD - 3.53), and public awareness campaigns (M - 3.71, SD - 3.44) were rated "Agree". This suggests that while the LGU has established functional systems, there remains room for enhancement, particularly in terms of sustained implementation and wider community participation.

However, the results also highlight some areas of concern. Community involvement in preparedness efforts (M - 3.34, SD - 3.33), efficiency in relief and aid distribution (M - 3.36, SD - 3.35), and post-disaster recovery programs (M - 3.33, SD - 3.36) only received "Neutral" ratings. This indicates possible gaps in community engagement, equitable resource distribution, and long-term recovery initiatives. Strengthening these dimensions is crucial for building resilience and ensuring holistic disaster response. Generally, the LGU demonstrates strong organizational capacity and technical readiness, but it needs to bolster grassroots participation, streamline aid distribution, and enhance recovery programs. A more inclusive and community-centered disaster management approach could help transform existing strategies into more sustainable and resilient practices.

Table 2-Practices in Disaster Response Management of LGU Lagonoy, Camarines Sur

Table 2 presented the practices in disaster response management of LGU Lagonoy, Camarines Sur, Philippines. The results demonstrate that the Local Government Unit (LGU) of Lagonoy employs generally effective disaster response practices, with mean scores ranging from 3.30 to 3.85. Several practices received "Strongly Agree" ratings, reflecting high levels of effectiveness. These include the conduct of emergency drills and simulations (M - 3.85, SD - 3.58), the establishment of a clear chain of command during

disaster operations (M - 3.83, SD - 3.56), prompt activation of evacuation procedures (M - 3.84, SD - 3.56), organized and timely relief operations (M - 3.83, SD - 3.56), availability of emergency responders (M - 3.83, SD - 3.56), and proper documentation of disaster response activities (M - 3.85, SD - 3.58). These findings suggest that the LGU has developed a structured operational framework that strengthens preparedness and immediate response.

No	Disaster Response Practice	Mean	SD	Description
1	The LGU regularly updates its disaster response plans.	3.63	3.66	Agree
2	Emergency drills and simulations are conducted frequently.	3.85	3.58	Strongly Agree
3	The LGU collaborates with community leaders during disaster response.	3.81	3.53	Agree
4	There is a clear chain of command during disaster response operations.	3.83	3.56	Strongly Agree
5	The LGU efficiently mobilizes resources in times of disaster.	3.78	3.54	Agree
6	Communication channels during disasters are reliable and accessible.	3.82	3.50	Agree
7	The LGU promptly activates evacuation procedures when needed.	3.84	3.56	Strongly Agree
8	The community actively participates in disaster response initiatives.	3.34	3.33	Neutral
9	Relief operations are conducted in an organized and timely manner.	3.83	3.56	Strongly Agree
10	Recovery and rehabilitation efforts are well-coordinated and sustainable.	3.33	3.36	Neutral
11	The LGU ensures the safety and security of evacuation centers.	3.83	3.54	Agree
12	Emergency responders are readily available and accessible.	3.83	3.56	Strongly Agree
13	The LGU maintains proper records and documentation of disaster response activities.	3.85	3.58	Strongly Agree
14	Feedback from past disasters is used to improve response practices.	3.36	3.35	Neutral
15	The LGU engages with external organizations for disaster response support.	3.30	3.31	Neutral

At the same time, practices such as updating disaster response plans (M - 3.63, SD - 3.66), collaboration with community leaders (M - 3.81, SD - 3.53), efficient mobilization of resources (M - 3.78, SD - 3.54), reliable communication channels (M - 3.82, SD - 3.50), and ensuring safety in evacuation centers (M = 3.83, SD = 3.54) were rated "Agree." This indicates that while the LGU performs satisfactorily in these areas, further improvements could enhance coordination and inclusivity in response efforts.

On the other hand, some practices were rated only "Neutral", highlighting areas that require attention. These include community participation in

disaster response initiatives (M - 3.34, SD - 3.33), coordination of recovery and rehabilitation efforts (M - 3.33, SD - 3.36), integration of feedback from past disasters (M - 3.36, SD - 3.35), and engagement with external organizations (M - 3.30, SD - 3.31). These relatively lower scores suggest gaps in post-disaster sustainability, community empowerment, and collaborative partnerships. Generally, the LGU of Lagonoy demonstrates strong operational readiness and organizational capacity in disaster response, particularly in emergency preparedness, coordination, and relief operations. However, to achieve a more resilient and adaptive disaster management system, there is a need to enhance community involvement, feedback integration, and collaboration with external stakeholders. Strengthening these dimensions will help ensure that response strategies are not only immediate and effective but also sustainable and inclusive.

These results implied that in day-to-day operations, indicate that the LGU of Lagonoy has established a solid disaster response framework that ensures efficiency in preparedness and immediate response. The consistent conduct of drills, clear command structures, timely evacuation procedures, and organized relief operations reflect operational discipline and readiness, which are critical in minimizing disaster impacts on the community. However, the “Neutral” ratings on community participation, recovery and rehabilitation coordination, feedback integration, and external collaborations suggest that while the LGU excels in immediate response, long-term and inclusive strategies remain limited. This means that in regular operations, the LGU can respond effectively to emergencies but may fall short in sustaining recovery, empowering local communities, and fostering partnerships. Thus, strengthening everyday practices to include participatory decision-making, continuous feedback loops, and stronger engagement with civil society and NGOs will ensure that disaster response operations evolve from being primarily reactive to becoming more proactive, adaptive, and sustainable.

Table 3- Programs, Projects, and Activities in Disaster Response Management of LGU Lagonoy, Camarines Sur

No	Programs, Projects, and Activities of LGU	Mean	SD	Description
1	The LGU implements effective disaster preparedness programs.	3.53	3.46	Agree
2	Regular training programs are conducted for disaster response teams.	3.85	3.58	Strongly Agree
3	Community-based disaster risk reduction programs are well-established.	3.74	3.56	Agree
4	The LGU has sufficient emergency response equipment and supplies.	3.83	3.56	Strongly Agree
5	Public awareness campaigns on disaster response are conducted regularly.	3.75	3.58	Agree

6	The LGU provides financial assistance to disaster-affected families.	3.33	3.32	Neutral
7	There are established partnerships with non-government organizations for disaster response.	3.24	3.26	Neutral
8	The LGU regularly monitors and evaluates disaster response programs.	3.71	3.55	Agree
9	Health services are readily available during disaster response operations.	3.39	3.40	Neutral
10	The LGU ensures proper allocation of budget for disaster response initiatives.	3.35	3.258	Neutral
11	Evacuation centers are adequately equipped and maintained.	3.41	3.46	Agree
12	Livelihood support programs are provided to disaster-affected communities.	3.33	3.26	Neutral
13	The LGU engages in capacity-building activities to improve disaster response.	3.85	3.58	Strongly Agree
14	Feedback mechanisms are in place to improve disaster response initiatives.	3.23	3.26	Neutral
15	Climate change adaptation programs are integrated into disaster response management.	3.84	3.56	Strongly Agree

Table 3 presents the respondents' assessment of the programs, projects, and activities (PPAs) implemented by the Local Government Unit (LGU) of Lagonoy, Camarines Sur in the area of disaster response management. Overall, the data reveal that the LGU has made significant strides in strengthening disaster preparedness and response initiatives, with several items rated within the "Agree" to "Strongly Agree" range.

The highest-rated PPAs include (1) regular training programs for disaster response teams ($M = 3.85$, $SD = 3.58$), (2) adequate emergency response equipment and supplies ($M = 3.83$, $SD = 3.56$), (3) capacity-building activities to improve disaster response ($M = 3.85$, $SD = 3.58$), and (4) integration of climate change adaptation programs into disaster response management ($M = 3.84$, $SD = 3.56$), all of which were interpreted as "Strongly Agree." These results suggest that the LGU places a high priority on human resource development and technical preparedness. Regular training programs ensure that local responders are equipped with the necessary skills to respond to emergencies effectively, a practice mandated under Section 12 of Republic Act No. 10121 (Philippine Disaster Risk Reduction and Management Act of 2010), which requires the establishment and training of Local Disaster Risk Reduction and Management Offices (LDRRMOS) to lead disaster preparedness and response efforts (Congress of the Philippines, 2010). The availability of emergency response equipment further demonstrates compliance with RA 10121's call for investment in risk reduction measures and response capabilities (Sec. 2[c]).

The high-rating for climate change adaptation (CCA) integration is also notable, as it aligns with the national and global shift toward mainstreaming

CCA into disaster risk reduction planning. This is consistent with the Sendai Framework for Disaster Risk Reduction 2015–2030, which calls for “the strengthening of disaster risk governance and investment in disaster risk reduction for resilience” (UNDRR, 2015, Priority 2 and 3). By integrating CCA into disaster response management, the LGU recognizes that climate-induced hazards such as typhoons, flooding, and sea level rise pose recurring threats to the community, and therefore need to be systematically addressed through long-term planning.

The mid-rated PPAs include community-based disaster risk reduction (CBDRR) programs ($M = 3.74$), public awareness campaigns ($M = 3.75$), regular monitoring and evaluation of disaster response programs ($M = 3.71$), and maintenance of evacuation centers ($M = 3.41$), all rated as “Agree.” These scores imply that while programs exist, there may be room for improvement in terms of frequency, coverage, and impact. The Sendai Framework underscores the importance of “understanding disaster risk” through public awareness and education (Priority 1), as well as continuous monitoring and evaluation to improve governance and operational readiness (UNDRR, 2015). Strengthening these areas could further enhance community preparedness and minimize disaster impacts.

On the other hand, the lowest-rated PPAs were (1) established partnerships with non-government organizations (NGOs) for disaster response ($M = 3.24$, $SD = 3.26$), (2) feedback mechanisms to improve disaster response initiatives ($M = 3.23$, $SD = 3.26$), (3) provision of livelihood support programs to disaster-affected communities ($M = 3.33$, $SD = 3.26$), (4) provision of financial assistance to disaster-affected families ($M = 3.33$, $SD = 3.32$), and (5) sufficiency of budget allocation for disaster response initiatives ($M = 3.35$, $SD = 3.26$), all of which were described as “Neutral.” These results indicate potential gaps in post-disaster recovery and rehabilitation efforts, as well as in participatory governance. While the LGU is seen as effective in preparedness and response, respondents appear less certain about the adequacy of financial support, livelihood restoration, and mechanisms for soliciting feedback from affected populations. According to RA 10121, the Local DRRM Fund may be utilized not only for preparedness and response but also for post-disaster rehabilitation and recovery activities, including livelihood assistance (Congress of the Philippines, 2010, Sec. 21). The relatively low ratings in these areas may point to either a lack of visibility of such initiatives at the community level or a perceived insufficiency of resources allocated for these activities.

The absence of strong NGO partnerships and feedback mechanisms is also significant. Multi-stakeholder collaboration is a critical component of both RA 10121 and the Sendai Framework, which emphasize that disaster risk

reduction and response should be a “shared responsibility” among government, civil society, the private sector, and local communities (UNDRR, 2015). Strengthening partnerships with NGOs and formalizing channels for community feedback could enhance accountability, transparency, and inclusivity in disaster response programs.

In summary, the results reveal that the LGU of Lagonoy is performing well in terms of preparedness, training, equipment, and CCA integration, which are vital for effective disaster response. However, greater attention should be directed toward financial readiness, post-disaster livelihood support, and participatory mechanisms to ensure that disaster management efforts are holistic, sustainable, and community-centered. Doing so will allow the LGU to fully meet the objectives of RA 10121 and contribute to achieving the priorities of the Sendai Framework for Disaster Risk Reduction.

Overall, the findings indicate that while the LGU of Lagonoy has strong programs in terms of preparedness, training, and integration of climate change adaptation measures, it needs to place greater emphasis on community support, health and livelihood recovery, and collaborative partnerships. Strengthening these dimensions will help ensure that disaster response management is not only technically sound but also socially inclusive and sustainable. The implications of these findings to the community of Lagonoy highlight both strengths and challenges in disaster response management. The strong performance of the LGU in preparedness, training, and climate change adaptation directly benefits residents by ensuring that emergency responders are well-equipped and that proactive measures are in place to reduce risks before disasters occur. However, the “Neutral” ratings in financial assistance, health services, livelihood support, and feedback mechanisms suggest that communities may face difficulties in recovery and rehabilitation, especially the most vulnerable sectors such as low-income families, farmers, and fisherfolk who rely heavily on daily livelihoods. Limited partnerships with NGOs and insufficient post-disaster support may also hinder long-term resilience, leaving affected households more dependent on external aid. Strengthening these weak areas would provide communities with not only immediate protection but also sustainable support systems, empowering them to actively participate in disaster response while building self-reliance and adaptive capacity against recurring hazards.

Table 4 - Capacities of Local Government Unit in Disaster Response Management

No	Capacities of LGU in Disaster Response Management	Mean	SD	Description
1	The LGU has a well-structured disaster response team.	3.83	3.56	Agree

2	The LGU has adequate personnel for disaster response operations.	3.85	3.58	Strongly Agree
3	The LGU possesses sufficient knowledge and skills in disaster response management.	3.84	3.56	Agree
4	The LGU has access to modern technology and equipment for disaster response.	3.83	3.56	Agree
5	Coordination between LGU departments during disaster response is effective.	3.85	3.58	Strongly Agree
6	The LGU provides timely and accurate disaster-related information to the public.	3.83	3.56	Agree
7	The LGU can conduct risk assessments and disaster planning.	3.84	3.56	Agree
8	The LGU has sufficient financial resources to support disaster response initiatives.	3.81	3.55	Neutral
9	The LGU ensures the availability and readiness of emergency shelters.	3.83	3.56	Agree
10	The LGU collaborates effectively with national and international agencies for disaster response.	3.85	3.58	Strongly Agree
11	The LGU conducts regular capacity-building activities for disaster response personnel.	3.84	3.56	Agree
12	Disaster response operations are well-documented and evaluated for improvement.	3.83	3.56	Agree
13	The LGU encourages community participation in disaster response initiatives.	3.85	3.58	Strongly Agree
14	The LGU has established standard operating procedures for various disaster scenarios.	3.83	3.56	Agree
15	The LGU ensures transparency and accountability in disaster response resource management.	3.84	3.56	Agree

Table 4 presents the respondents' assessment of the capacities of the Local Government Unit (LGU) in disaster response management. The results generally indicate that the LGU demonstrates strong organizational and operational capacities to respond to disasters, as most indicators are rated within the "Agree" to "Strongly Agree" range.

The highest-rated capacities highlight four crucial areas where the LGU excels: (1) adequacy of personnel for disaster response operations, (2) effective coordination between LGU departments during disaster response, (3) collaboration with national and international agencies, and (4) encouragement of community participation in disaster response initiatives, all of which obtained a mean score of 3.85 and were interpreted as "Strongly Agree."

These findings are consistent with the mandates of Republic Act No. 10121, or the Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010, which emphasizes the establishment of "an integrated and coordinated disaster risk reduction and management policy, plan and budget at the national and local levels" (RA 10121, Sec. 2). The high ratings on personnel adequacy and departmental coordination suggest that the LGU has effectively

institutionalized its Local Disaster Risk Reduction and Management Office (LDRRMO) and operationalized its Local DRRM Council, as required under Sections 11 and 12 of RA 10121. This means that organizational structures and human resources are in place to ensure efficient mobilization during disaster events.

The strong rating for collaboration with national and international agencies further demonstrates compliance with the Act's call for multi-stakeholder partnerships and intergovernmental cooperation (RA 10121, Sec. 2[e]). This collaboration is crucial in mobilizing external technical assistance, equipment, and relief resources when the scale of a disaster overwhelms local capacity. Additionally, the LGU's encouragement of community participation is aligned with RA 10121's principle of "adopting a disaster risk reduction and management approach that is holistic, comprehensive, integrated, and proactive in lessening the socioeconomic and environmental impacts of disasters" (Sec. 2[d]). Community involvement also resonates with Priority 4 of the Sendai Framework for Disaster Risk Reduction 2015–2030, which calls for enhancing disaster preparedness for effective response and "building back better" in recovery, rehabilitation, and reconstruction.

In contrast, the lowest-rated capacity pertains to the sufficiency of financial resources to support disaster response initiatives, which received a mean score of 3.81 and was described as "Neutral." This finding suggests a level of uncertainty among respondents regarding the adequacy of funding to sustain disaster response operations. Financial readiness is a cornerstone of disaster management because it allows LGUs to pre-position relief goods, maintain emergency equipment, fund rapid mobilization efforts, and provide continuous training for responders. RA 10121 mandates the allocation of at least five percent (5%) of the estimated revenue from regular sources as the Local DRRM Fund (Sec. 21), which may be used for pre-disaster preparedness programs and post-disaster activities. A neutral perception of financial sufficiency could indicate either limited awareness of this fund among stakeholders or a perceived inadequacy of funds relative to the scale of hazards faced by the locality.

The results therefore underscore an important insight: while the LGU is organizationally capable and demonstrates strong coordination and community engagement, financial sustainability remains a critical area for improvement. Addressing this gap aligns with Sendai Framework Priority 3, which calls for "investing in disaster risk reduction for resilience" through public and private investment in structural and non-structural measures to enhance resilience at all levels. Increasing budget allocations, institutionalizing contingency funds, and forging partnerships with private

sector actors and development organizations may help strengthen the LGU's financial capacity for disaster response.

Overall, the findings reveal that the LGU is well-prepared in terms of personnel, coordination mechanisms, and collaborative networks, which are vital components of disaster response management. However, ensuring financial adequacy will enable the LGU to sustain and scale its response operations, thereby fully realizing the goals of RA 10121 and contributing to the broader objectives of the Sendai Framework in reducing disaster losses and safeguarding community resilience.

The implication of these findings suggests that while the LGU of Lagonoy possesses strong institutional and operational capacities in disaster response management, its ability to sustain and expand these efforts is challenged by limited financial resources. The municipality's strengths in human resources, coordination, and community participation indicate that it is organizationally prepared to respond effectively to disasters, which is crucial given Lagonoy's frequent exposure to typhoons and flooding. However, without sufficient funding, long-term recovery programs, livelihood support, and technological upgrades may remain constrained, leaving vulnerable communities at risk of prolonged hardship after disasters. Strengthening fiscal support, whether through local revenue generation, national government allocations, or external partnerships, is therefore vital to ensure that Lagonoy's disaster response capacities remain resilient, inclusive, and adaptive to the escalating threats posed by climate change.

CONCLUSIONS

The study concludes that the LGU of Lagonoy, Camarines Sur demonstrates strong disaster response management capacities, particularly in training, equipping response teams, inter-agency coordination, evacuation procedures, and community engagement initiatives. Its strategies and practices highlight effective preparedness and organizational coordination, supported by capacity-building programs and climate change adaptation measures. However, several gaps remain, especially in financial resources, post-disaster recovery, relief distribution, health and livelihood support, and partnerships with external organizations. Overall, while the LGU shows substantial institutional strength in disaster response, enhancing financial sustainability, community participation, and inclusive recovery mechanisms is essential to achieve a more resilient, adaptive, and comprehensive disaster management system.

RECOMMENDATIONS

The LGU of Lagonoy is encouraged to make disaster response more community-centered and sustainable by forming barangay disaster committees, holding regular community drills, and pre-positioning relief goods for faster and fairer distribution. Recovery programs should focus on helping families rebuild homes, restore livelihoods, and get psychosocial support, with the help of government agencies, NGOs, and private partners. Health services can be improved by training barangay health workers and sending mobile health teams to affected areas. The LGU should also secure a dedicated disaster fund and build partnerships to support bigger projects. Continuous public information campaigns, regular community feedback after disasters, and the use of technology like SMS alerts and hazard maps will help keep everyone prepared and informed. These steps will make Lagonoy more ready, more resilient, and better able to recover from disasters.

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