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Disaster Risk Reduction Management (DRRM) Of Schools in Lagonoy North District

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1. Introduction

Background of the Study

Emergencies and disasters are an inescapable aspect of daily life, arising from the economic and social structures of societies, their interactions with one another, and the decisions made by those in power. Disasters often occur because certain communities are forced to live in areas prone to hazards such as flooding rivers or volcanic eruptions. As marginalized populations grow, the severity of disasters in terms of lives lost, property damage, and financial costs, especially in developing countries, also increases. With the best land already occupied in both rural and urban settings, people seeking space for homes or farming are pushed onto less desirable land, which offers lower productivity and reduced physical or financial security. Disasters carry significant human and financial costs, leading to fatalities, injuries, and food shortages. While many casualties and injuries may occur immediately after a disaster, issues such as disease outbreaks and food scarcity often develop later, depending on the disaster's type and duration. By understanding the potential impacts of disasters, steps can be taken in advance to mitigate their effects and better protect vulnerable populations.

The global intersection of education and disaster risk has reached a crisis point. Recent data from UNICEF and the World Bank (2024–2025) reveals that climate-related hazards disrupted learning for at least 242 million students, roughly 1 in 7 worldwide, over the last year. We have moved past the era of occasional catastrophes into a permanent state of volatility, where education is routinely halted by chronic flooding, extreme heatwaves, and intensified storms.

The financial and structural burden is immense, but the weight is personal. With disasters costing global education $35.9 billion annually, these figures represent more than just a deficit; they are a call to action. As an administrator, the understanding of quality education has fundamentally shifted. It is no longer enough to simply manage a curriculum; the mission is to build a fortress. In the face of modern

crises, a school must be more than a place of learning; it must be a resilient, safe haven where the future is protected, no matter what happens outside.

The global response is currently guided by the Comprehensive School Safety (CSS) Framework 2022–2030. This framework moves beyond the traditional "fire drill" approach, focusing instead on three critical pillars: Safer Learning Facilities: Moving toward climate-resilient architecture and retrofitting; School Safety and Educational Continuity Management: Administrative policies that ensure learning does not stop (e.g., hybrid learning) when the physical campus is compromised; and Risk Reduction and Resilience Education: Integrating DRRM into the core DNA of the curriculum so that students and teachers are "change agents" rather than just victims.

According to Sustainable Development Goal 4 (Quality Education), established by the United Nations in 2015, its central mission is to ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all. It emphasizes that a quality education cannot exist without a safe environment; it becomes clear that safeguarding educational spaces is foundational to effective learning viz;

> *"ensure inclusive, equitable, and quality education while promoting lifelong learning for all by 2030. It moves beyond simple enrollment to focus on actual learning outcomes, aiming for universal primary and secondary completion and equal access to vocational and higher education. Build and upgrade education facilities that are child-, disability-, and gender-sensitive, and provide safe, nonviolent, inclusive, and effective learning environments for all. Achieving this goal remains critical, as education serves as the primary engine for reducing inequality and driving global sustainable development".*

Furthermore, the Sendai Framework for Disaster Risk Reduction serves as a global standard for your study, shifting the focus from reactive disaster response to proactive risk management. It advocates for Building Back Better, suggesting that schools should not just recover from typhoons or floods but should emerge more resilient through better administrative planning and architectural reinforcement. This framework encourages educational leaders to anticipate hazards, foster a culture of safety among staff and students, and invest in infrastructure improvements that reduce vulnerability to future disasters. By aligning with both SDG 4 and the Sendai Framework, school administrators are better equipped not only to maintain continuity of education during crises but also to create an environment where students can thrive academically and emotionally, even in the face of adversity.

The expansion of the Philippine disaster management narrative reveals a complex intersection between high-level policy and the demanding reality of local implementation. While Republic Act No. 10121 successfully moved the country away from a purely relief-and-rescue mindset, the institutionalization of this shift through DepEd Order No. 37, s. 2022 has placed an unprecedented administrative and moral burden on school heads.

> *"The policy aims to protect the constitutional rights of learners and personnel to life, health, and safety. It applies to all levels (Kindergarten to Grade 12 and ALS)*

and covers all teaching and non-teaching personnel in public schools. Private schools are encouraged to adopt these guidelines".

Educators are now expected to function as makeshift civil engineers and emergency responders, often without a corresponding increase in their Maintenance and Other Operating Expenses (MOOE) to fund physical retrofitting or high-tech early-warning systems. This creates a Paper Resilience trap, where schools maintain impeccable documentation and hazard maps to satisfy national audits, yet remain physically vulnerable to the increasing intensity of super typhoons fueled by climate change. Furthermore, the persistent use of schools as Evacuation Centers (ECs) by local government units creates a systemic friction with the DepEd's mandate for learning continuity. When a school transitions into a shelter, the compliance gap widens as facilities sustain wear and tear beyond their intended capacity, and the sanctuary of learning is temporarily dismantled. Bridging this gap requires moving beyond mere reporting toward a localized, multi-stakeholder approach, one where the burden of risk reduction is shared with the community and supported by climate-proof infrastructure budgets, rather than relying solely on the heroic but overextended efforts of individual school personnel.

The situation in the Bicol Region represents a complex intersection of environmental vulnerability and systemic exhaustion. Because the region acts as the typhoon alley of the Philippines, the traditional school calendar is frequently interrupted, forcing a shift from standard pedagogy to emergency response. This geographical reality transforms the role of a school head from an academic leader into a full-time disaster strategist. Even with the pioneering efforts of DepEd Regional Office V to create localized safety modules, the sheer velocity of climate events often outpaces the implementation of these policies. We aren't just dealing with wind and rain; we are dealing with a geographic triple threat where the proximity to the Philippine Trench and the Sierra Madre's tail end creates a funnel for disaster.

This triple threat of storm surges, flash floods, and landslides creates a fragmented learning environment. When a school is converted into an evacuation center, the mission of the institution shifts overnight, further blurring the lines between social service and education. The most insidious effect, however, is disaster fatigue. This is a state of chronic stress where the recovery phase of one typhoon overlaps with the "preparedness phase" of the next. For teachers, the psychological burden of securing their own homes while simultaneously safeguarding school property and monitoring student safety leads to a unique form of professional burnout.

Technical and systemic readiness also remains a significant hurdle. Buntong et al. (2023) and the Sta. Cruz District Study (2024) observed that while planning and integration were well-implemented, the physical availability of alarms, fire extinguishers, and mechanical systems was often deficient. Both studies recommended that future institutional audits prioritize the functionality of safety hardware over the presence of written manuals. On a broader scale, Dela Cruz and Ormilla (2022) found that the Enabling Environment, the policy and cultural atmosphere of the school, is often the weakest pillar. They recommended that school heads establish dedicated DRRM offices and ensure that budget tracking is transparent. Finally, the Global School Safety Survey (2025) emphasized that disasters cost education systems billions annually, yet only 12% of governments report systematically funded school upgrades. This landmark study recommended that school safety be mandated through formal legislation that forces

cross-sectoral collaboration between disaster authorities and education ministries to ensure sustainable, long-term funding.

The Lagonoy North District faces a unique administrative struggle due to its location at the "mouth" of Lagonoy's funnel-shaped, 37,318-hectare territory. This geography splits the district between coastal barangays vulnerable to Pacific storm surges and upland schools prone to isolation within the Caramoan Peninsula's rugged foothills. Frequent rainfall under a Type II climate often renders mountain trails and river crossings impassable, creating logistical bottlenecks that restrict access to boat or motorcycle transport. Consequently, the district must manage constant environmental threats ranging from typhoons to landslides that frequently isolate these remote classrooms and complicate the delivery of consistent education. This district is defined by a dual-threat topography: its coastal barangays, such as Sipaco and Olas, are directly exposed to the Pacific Ocean's storm surges, while its upland schools are nestled within the rugged, landslide-prone foothills of the Caramoan Peninsula. In Lagonoy North, school administrators and supervisors are tasked with managing DRRM protocols in facilities that often double as community evacuation centers, complicating the Learning Continuity Plan. While the Lagonoy Municipal DRRM Office provides support, the day-to-day administration and supervision of safety, ranging from the conduct of quarterly drills to the structural auditing of aging classrooms, rests on the local school leadership. There is an urgent need to evaluate the effectiveness of these local managers in implementing the four thematic areas of DRRM: Prevention and Mitigation, Preparedness, Response, and Recovery. This study seeks to bridge the gap between the sophisticated mandates of the Philippine government and the practical, ground-level realities faced by the schools of Lagonoy North.

The findings of this research will provide valuable insights into the status and effectiveness of Disaster Risk Reduction Management (DRRM) among schools in Lagonoy North District. Primarily, this research will serve as a vital assessment tool for Department of Education (DepEd) officials and policy planners, providing them with empirical data to refine regional safety protocols and optimize resource allocation for disaster preparedness. For school administrators, the results will offer a roadmap for improving leadership strategies in risk mitigation, enabling them to transition from reactive measures to a proactive culture of resilience. Furthermore, this study will empower teachers by highlighting the need for continuous professional development and the integration of disaster awareness into the academic curriculum, ensuring they are better equipped to lead during crises. At the heart of this research are the students, who stand to benefit from a more secure and resilient learning environment that prioritizes their safety and minimizes learning disruptions during calamities. Beyond the school gates, the local community and parents will gain from the enhanced coordination between schools and barangay units, especially given the school's dual role as a community refuge during typhoons and floods. This work will contribute to the expanding body of knowledge in educational administration and supervision, offering other researchers a localized reference point for studying disaster management within the unique geographical and socio-economic landscape of the Bicol Region.

In the context of the Lagonoy North District, the primary problems requiring study center on the gap between policy compliance and functional reality across the four thematic areas of DRRM. Regarding disaster preparedness, there is a perceived disconnect where routine drills are often viewed as mere compliance exercises rather than deep-level skill building, further complicated by a lack of specialized training for teachers and insufficient emergency communication equipment. In terms of disaster

prevention and mitigation, the study must address the structural vulnerability of older school buildings and the chronic lack of funding for permanent mitigation measures like drainage or retrofitting, which are often sidelined in favor of immediate response needs. The challenges in disaster response are frequently highlighted by the dual role schools play as community evacuation centers, a situation that often leads to resource depletion and damage to school facilities, hindering the transition back to a learning environment. Furthermore, the disaster rehabilitation and recovery phase is often the most neglected, characterized by significant delays in national funding for physical repairs and a critical shortage of psychosocial support services for traumatized students and staff. Ultimately, the geographic isolation of the North District serves as an overarching hurdle, complicating the perceived effectiveness of the program as stakeholders navigate limited local resources and a lack of seamless coordination with municipal authorities.

2. Research Objectives

This study determined the level of implementation of the School Disaster Risk Reduction and Management program among secondary schools in the Lagonoy North District, Division of Camarines Sur. Specifically, this attained the following objectives:

1. To determine the profile of schools in Lagonoy North District in terms of the number of students, number of sections, number of classrooms, number of DRRM staff, years of operations, school lot area, amount of DRRM budget, and availability of materials and equipment.
2. To determine the stakeholders' level of implementation of the schools' DRRM program along with disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery.
3. To assess the significant association between the school profile and the stakeholders' level of implementation.
4. To assess the significant difference in the stakeholders' level of implementation of the DRRM program among schools.
5. To develop an action plan to enhance the schools' capabilities in DRRM.

3. Scope and Delimitation

This study determined the level of implementation of the School Disaster Risk Reduction and Management Program among secondary schools in the Lagonoy North District, Division of Camarines Sur, for School Year 2025-2026.

Specifically, this determined the profile of schools in Lagonoy North District in terms of the number of students, number of sections, number of classrooms, number of DRRM staff, years of operations, school lot area, amount of DRRM budget, and availability of materials and equipment; determined the stakeholders' level of implementation of the schools' DRRM program along with disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery; assessed the significant association between the school profile and the stakeholders' level of implementation; assessed the significant difference between stakeholders' level of implementation of the DRRM program among schools; and developed an action plan to enhance the schools' capabilities in DRRM. A descriptive-associative-comparative research design was used, with the primary respondents

consisting of 377 students selected through stratified random sampling. This method ensures that the sample proportionally represents different grade levels or schools within the district. While the study focuses on students as primary stakeholders, it also involves DRRM coordinators or school heads providing the necessary school profile data.

Private institutions were excluded as they operate under different budgetary frameworks and may not follow the same DepEd DRRM funding mandates. Likewise, the study excluded parents, local LGU officials, and community members. To keep the scope manageable and focused strictly on the internal school environment and the direct experience of the learners.

4. Assumptions

This study was anchored on the assumptions that:

1. The school profiles and administrative records provided are accurate and reflect the current enrollment, facilities, and operational history of the Lagonoy North District.
2. The levels of DRRM program implementation are representative of the school's actual performance during recent natural or man-made hazards, and the schools have existing, active DRRM plans for all four phases, such as prevention, preparedness, response, and recovery, allowing stakeholders to observe and evaluate them.
3. An action plan can be developed to enhance the schools' capabilities in DRRM.

5. Hypotheses

The following hypotheses were tested in this study.

1. Objective: To assess the significant association between the school profile and the stakeholders' level of implementation.
2. Ho: There is no significant association between the school profile and the stakeholders' level of implementation.
3. Ha: There is a significant association between the school profile and the stakeholders' level of implementation.
4. Objective: To assess the significant difference in stakeholders' level of implementation of the DRRM program among schools.
5. Ho: There is no significant difference in stakeholders' level of implementation of the DRRM program among schools.
6. Ha: There is a significant difference in the stakeholders' level of implementation of the DRRM program among schools.

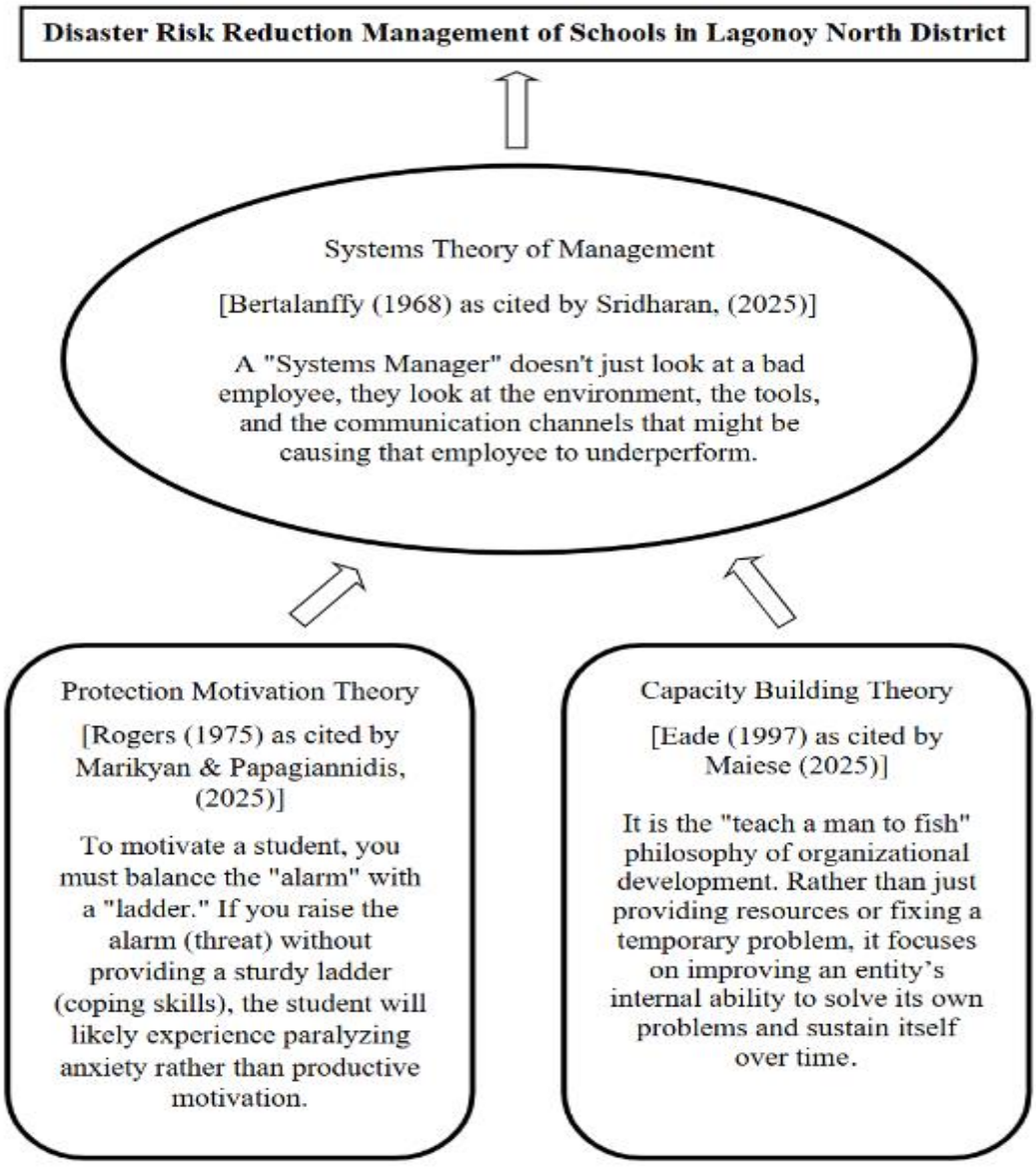
6. Theoretical Framework

The present study was anchored on the following theories, viz., Systems Theory of Management by Bertalanffy (1968) as cited by Sridharan (2025), Protection Motivation Theory by Rogers (1975) as cited by Marikyan and Papagiannidis, (2025), and Capacity Building Theory by Eade (1997) as cited by Maiese (2025).

Systems Theory of Management. This theory was originally conceptualized by Ludwig von Bertalanffy in 1968. It views an organization as a complex system composed of interrelated and interdependent parts that work together to achieve common goals. The theory emerged from Bertalanffy's broader framework called General Systems Theory, which sought to explain how systems function across different disciplines such as biology, engineering, and social sciences.

Figure 1

Theoretical Paradigm



In the latest citation of Sridharan (2025), this theory emphasizes that an organization is a complex, unified entity rather than a collection of isolated departments. The core focus is on interdependence, suggesting that no single part of a business, whether it be marketing, finance, or production, can function in a vacuum.

Because these subsystems are inextricably linked, a decision or change in one area inevitably creates a ripple effect

throughout the entire supersystem. This holistic perspective encourages managers to look beyond individual performance and instead prioritize the synergy of the whole, ensuring that all components work in harmony to achieve the organization's ultimate goals. The theory further highlights the importance of the open system model, which views the organization as a living organism that must interact with its external environment to survive. This process involves taking in various inputs, such as raw materials, labor, and capital, and putting them through a transformation process to create outputs like products or services. A critical emphasis here is placed on feedback loops; by monitoring how the environment reacts to its outputs, a company can adjust its internal processes. This constant exchange allows the organization to achieve "negative entropy," effectively resisting the natural tendency toward decline and disorder by remaining responsive to market shifts.

In this study, the application of Systems Management Theory treats each school in the Lagonoy North District as an Open System, where the school's safety is dependent on the continuous interaction between its internal resources and the external environment. In this framework, the School Profile represents the Inputs the essential raw materials such as human capital (students and staff), physical infrastructure (classrooms and lot area), and financial resources (DRRM budget). Also, this will support the stakeholders' level of implementation of the schools' DRRM program along with disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery.

Protection Motivation Theory. This theory was originally conceptualized by R. W. Rogers in 1975 to explain how individuals are motivated to protect themselves from perceived threats. The theory was first introduced in Rogers' work on fear appeals and attitude change and later expanded in subsequent studies. PMT focuses on how cognitive processes influence a person's decision to adopt protective or preventive behaviors when confronted with potential risks or harmful situations. In the latest citation of Marikyan & Papagiannidis (2025), this theory emphasizes the cognitive appraisal process as the bridge between a perceived threat and a behavioral response. Unlike earlier theories that focused purely on the emotional impact of fear, PMT argues that individuals act based on a calculated mental evaluation. The core of the theory lies in "Protection Motivation" itself, the intermediate state that directs and sustains protective actions, which is triggered when a person perceives a risk as both severe and personally relevant, while simultaneously believing they have the tools to mitigate that risk.

In the context of Disaster Risk Reduction Management (DRRM) for schools in Lagonoy North District, the Protection Motivation Theory (PMT) serves as the cognitive bridge between a school's structural profile and the actual execution of safety protocols. The theory emphasizes that simply having resources such as a large budget, adequate classrooms, or a dedicated DRRM staff does not automatically result in a resilient school environment. Instead, PMT focuses on how these institutional factors influence the threat and coping appraisals of stakeholders. For instance, the physical school lot area and availability of materials directly shape how teachers and administrators perceive their vulnerability to local hazards like typhoons or landslides, which are common in the Bicol region.

Capacity Building Theory. This theory was originally conceptualized by Eade (1997). This theory, which emphasized the concept of capacity-building, particularly as explored in Eade's influential work for Oxfam, redefines development as a process of empowering people rather than merely providing technical solutions. It moves away from the traditional top-down model where external experts dictate terms, shifting the focus toward the inherent agency of the individuals involved. This approach asserts that true development only occurs when people are seen as the primary actors in their own lives, capable of identifying their problems and designing their own solutions. Consequently, capacity-building is treated not as a sideline activity or a specific set of training sessions, but as the fundamental purpose of any social or economic intervention. In the latest citation of Maiese (2025), this theory, Capacity Building Theory, emphasizes the transformation of potential into performance, focusing on the systemic process of developing and strengthening the skills, instincts, and resources that schools need to survive and thrive.

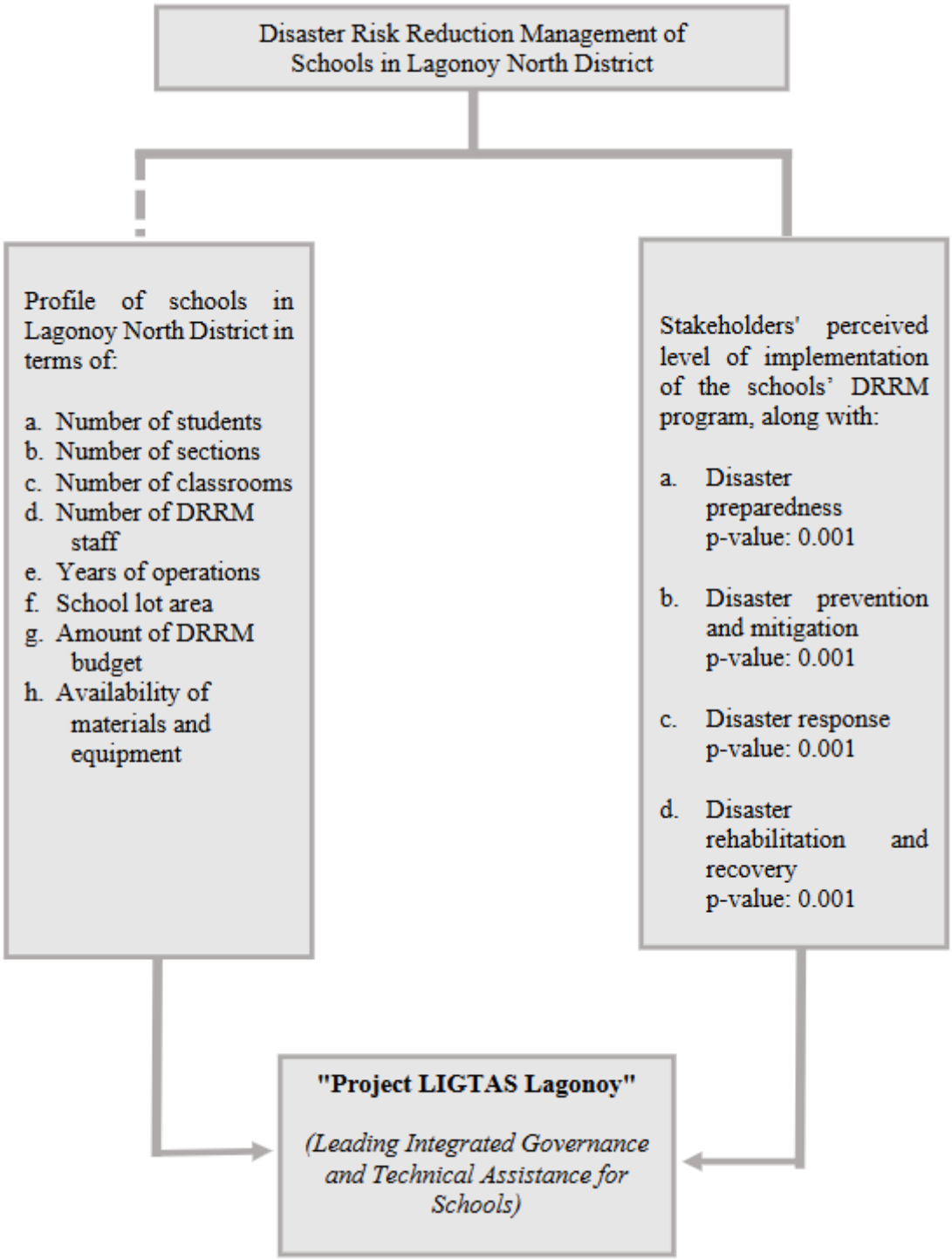
In the context of the present study, the theory shifts the focus from merely having a profile, such as a specific number of DRRM staff or a certain budget to how those inputs are actively utilized to create a functional safety culture. It posits that disaster resilience is not a static state achieved by purchasing equipment, but a continuous process of powering up the school's internal systems so they can independently manage disaster prevention, mitigation, and response without relying solely on external aid. The theory further emphasizes sustainability and institutional ownership across three distinct levels: the individual, the organizational, and the systemic. For the schools in Lagonoy, this means that capacity building is only successful if the DRRM program survives beyond a single training session or budget cycle. It highlights the importance of disaster rehabilitation and recovery as a test of organizational memory and resilience. By focusing on the availability of materials and years of operations, the theory suggests that a school's maturity is defined by its ability to integrate disaster protocols into its daily DNA, ensuring that stakeholders at every level possess the collective efficacy to protect the school community long-term.

7. Conceptual Framework

The Conceptual Paradigm for the schools in Lagonoy North District serves as a structured framework to evaluate and enhance Disaster Risk Reduction Management (DRRM). It systematically connects the institutional profile of the schools with the perceived effectiveness of their safety protocols. By organizing these variables, the study identifies how specific resources and administrative factors influence the overall safety of the academic community. This visual and theoretical roadmap is essential for understanding the current state of disaster readiness and the areas requiring urgent intervention. Ultimately, the paradigm bridges the gap between raw data and the creation of a functional governance model for school safety. It provides a clear logic for how school characteristics directly impact the success of disaster-related initiatives.

Figure 2

Conceptual Paradigm



The first segment of the paradigm focuses on the detailed profile of schools within the Lagonoy North District. This includes demographic and logistical data such as the number of students, sections, and classrooms available to the population. It also accounts for administrative capacity by documenting the number of DRRM staff and the total years of school operations. Physical assets are further examined through the school lot area and the availability of specific DRRM materials and equipment. Most importantly, the financial backbone of these efforts is assessed through the allocated amount of the DRRM budget. Collecting this baseline information is a prerequisite for determining whether schools have the foundational resources necessary to implement safety mandates.

The second core component evaluates the stakeholders' perceived level of implementation across four primary thematic areas of DRRM. These pillars include Disaster Preparedness, which focuses on readiness before an event, and Disaster Prevention and Mitigation, aimed at reducing potential impacts. Additionally, the paradigm measures the effectiveness of Disaster Response during an emergency and the efficiency of Disaster Rehabilitation and Recovery afterward. By surveying stakeholders, the study captures the lived reality of how these programs function on the ground rather than just on paper. This perception-based data is vital for identifying gaps in training, communication, or resource allocation within the district. It ensures that the resulting improvements are tailored to the actual needs and experiences of the school personnel and students.

A significant analytical feature of this paradigm is the inclusion of p-values, associated with each DRRM pillar. These values suggest a high level of statistical significance, indicating that the relationships between school profiles and implementation levels are not due to chance. By applying rigorous statistical testing, the paradigm validates the findings and provides a scientific basis for policy recommendations. This mathematical approach allows researchers to pinpoint which specific school profile variables most strongly correlate with successful disaster management. Having such a low p-value strengthens the argument for targeted funding and staffing based on the identified significant factors. This ensures that any subsequent interventions are data-driven and likely to produce measurable improvements in school safety.

The final phase and intended outcome of the paradigm is the establishment of "Project LIGTAS Lagonoy". This acronym stands for Leading Integrated Governance and Technical Assistance for Schools, emphasizing a comprehensive approach to disaster management. The project is designed to translate the research findings into a practical, localized governance model that provides direct technical support to schools. By integrating governance with technical assistance, the project aims to standardize safety protocols across the Lagonoy North District. It serves as the culmination of the study, moving from theoretical assessment to tangible community action. "Project LIGTAS Lagonoy" represents a commitment to building a culture of resilience that protects both the infrastructure and the lives within the educational system.

8. Definition of Terms

For clarity, the following terms were defined conceptually and operationally.

Project LIGTAS LAGONOY. In this study, Project Ligtas Lagonoy is defined as the proposed strategic intervention and action plan designed to elevate the DRRM implementation status of schools in the Lagonoy North District from their current levels to Highly Implemented.

School Profile. It refers to the unique set of structural, demographic, and functional characteristics that define an educational institution's capacity and environment. In this study, it refers to the specific data gathered through the researcher-made survey instrument or school records, such as the School Micro-Data or EBEIS, to quantify the characteristics of schools in Lagonoy North District

School DRRM Program. This defined as a multi-hazard approach to protecting students and educators from death, injury, and harm in schools, planning for educational continuity in the face of all expected hazards and threats, and promoting the knowledge and skills of learners and duty-bearers to contribute to safer communities and a sustainable future (GADRRRES, 2022). This study, it describes the specific, measurable actions and structures that prove the program is functioning.

Disaster Preparedness. Based on Titko and Ristvej (2020), disaster preparedness is defined as the "knowledge and capacities" developed by various sectors governments, communities, and individuals to effectively anticipate, respond to, and recover from disaster impacts. This includes specific actions like establishing mutual aid agreements, training personnel, and maintaining early warning systems. In this study, it is defined as the aggregate of measures, resources, and systems put in place before an event to effectively anticipate, respond to, and recover from the impacts of likely, imminent, or current hazards.

Disaster Prevention and Mitigation. This refers to activities and measures taken to completely avoid the adverse impacts of hazards and related disasters, and the sustained effort to reduce or eliminate the long-term risk to human life and property from hazards and their effects (Alexander, 2020; Kurata et al., 2023). In this study, it refers to a set of protocols designed to ensure a hazard never reaches a vulnerable population, and about changing the physical or social environment so that the reaction doesn't have to be as extreme.

Disaster Response. This is referring to the immediate actions taken during or directly after a disaster to save lives, reduce health impacts, ensure public safety, and meet the basic subsistence needs of the people affected (FEMA, 2020). In this study, it refers to the actual mobilization of resources, personnel, and specialized protocols to address the immediate consequences of a hazard.

Disaster Rehabilitation and Recovery. This represents the phases that follow the immediate emergency response focuses on restoring basic functionality and the process of returning a community to a new state of normalcy (UNDRR, 2017). In this study, it refers to the specific programs, funding mechanisms, and reconstruction initiatives implemented to restore community services, rebuild infrastructure, and enable the community to return to a functional and ideally improved condition.

9. METHODOLOGY

This presents the methodology of the study and is organized into six key parts. It covers research design, respondents of the study, research instruments, procedure of investigation, ethical considerations, and data analysis techniques.

Research Design

The study employed a descriptive–associative–comparative research design to provide a comprehensive analysis of the schools' Disaster Risk Reduction and Management (DRRM) program. This design is appropriate as it allows the systematic description of existing conditions, the examination of relationships among variables, and the determination of differences across groups within a single investigation. Through this approach, the study was able to determine the profile of schools in Lagonoy North District in terms of the number of students, number of sections, number of classrooms, number of DRRM staff, years of operations, school lot area, amount of DRRM budget, and availability of materials and equipment; determine the stakeholders' level of implementation of the schools' DRRM program along disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery; assess the significant association between the school profile and the stakeholders' level of implementation; and assess the significant difference in the stakeholders' level of implementation of the DRRM program among schools. Similar studies have successfully utilized this combined design to yield comprehensive findings, such as those of Johnson and Christensen (2019), and Fraenkel, Wallen, and Hyun (2012), who emphasized the strength of integrating descriptive, correlational, and comparative approaches in educational research.

The descriptive design was utilized to systematically present and interpret the existing conditions of the schools and the extent of DRRM implementation. This design specifically addressed the objective to determine the profile of schools in Lagonoy North District in terms of the number of students, number of sections, number of classrooms, number of DRRM staff, years of operations, school lot area, amount of DRRM budget, and availability of materials and equipment, as well as to determine the stakeholders' level of implementation of the schools' DRRM program along disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery. Descriptive research is widely used in education to provide accurate portrayals of phenomena as they naturally occur. Studies such as those conducted by Best and Kahn (2016), Calderon and Gonzales (2018), and Aquino (2020) demonstrated the effectiveness of descriptive design in profiling institutional characteristics and assessing program implementation in school settings.

While, the associative design, also known as correlational design, was employed to examine the relationships between variables without manipulating them. This design supported the objective to assess the significant association between the school profile and the stakeholders' level of implementation. By identifying patterns of relationships, the study was able to determine whether variations in school characteristics are linked to differences in DRRM implementation. Associative research is essential in educational studies as it helps explain how variables are connected and provides a basis for further investigation. This approach has been effectively used in studies by Cohen, Manion, and Morrison (2018),

Hattie (2009), and Tabachnick and Fidell (2013), which explored relationships among educational variables and contributed to evidence-based decision-making.

Lastly, comparative design was applied to determine differences in the level of DRRM implementation across schools. This design addressed the objective to assess the significant difference in the stakeholders' level of implementation of the DRRM program among schools. Through comparison, the study was able to identify variations and disparities that may exist among different groups, which is essential for developing targeted interventions. Comparative research is widely utilized in education to examine differences across populations or conditions. Studies conducted by Gay, Mills, and Airasian (2012), McMillan and Schumacher (2014), and Borg and Gall (2017) have demonstrated the usefulness of comparative design in identifying group differences and informing policy and program development.

Respondents of the Study

The primary participants of this study consist of 377 students and a specialized group of teachers from various schools within the Lagonoy North District. By including both groups, the study captures a holistic view of Disaster Risk Reduction Management (DRRM), combining the lived experience of the students with the pedagogical and administrative perspective of the faculty.

To ensure that each school within the district is fairly represented, Stratified Random Sampling was employed. This method is crucial because it accounts for the varying sizes of different schools, and it ensures that the 377 students are not just coming from one or two large schools but are a mini version of the entire district's student population. A unique feature of the methodology is the cluster approach of 25 to 30 respondents per school. This combination of students and teachers serves a specific purpose. From the student perspective**,** as the most vulnerable population during a disaster, their awareness and preparedness levels are the primary metrics of DRRM success. While, from the teacher's perspective**,** teachers act as the first responders and implementers of DRRM protocols.

Table 1

School	N	f	%
A	128	20	5.31
B	218	20	7.96
C	42	10	7.96
D	121	12	3.18
E	131	20	2.65
F	325	30	3.98
G	138	20	5.31
H	226	30	3.98
I	147	20	5.31
J	125	15	7.96
K	250	30	7.96
L	250	30	7.96
M	282	30	7.96
N	129	20	7.96
O	384	30	5.31
P	337	30	5.31
Q	118	10	3.98
R	3777	377	100.00

Respondents of the Study

Note. The table shows the distribution of the 377 respondents according to their school, with percentages indicating each school's proportion of the total sample

Similar approaches have been successfully utilized in studies such as Shaw et al. (2019), who examined school-based disaster preparedness by incorporating both student and teacher perspectives, and Ronan and Johnston (2018), who emphasized the importance of including multiple stakeholders in assessing disaster readiness in educational settings. Likewise, Fernandez and Shaw (2016) demonstrated that combining student and teacher data provides a more comprehensive evaluation of DRRM effectiveness in schools. Also, Tuladhar et al. (2018) argued that while students represent the most vulnerable demographic during a disaster, their level of awareness is directly tied to the efficacy of the top-down implementation by teachers. Therefore, evaluating both cohorts provides a comprehensive metric for the success of DRRM protocols, as teachers serve as the primary "first responders" and policy implementers within the educational environment.

Research Instrument

Questionnaire. The use of a questionnaire in this research serves as the primary quantitative instrument to systematically bridge the gap between school records and stakeholder perceptions. To ensure depth, the instrument should be structured as a Researcher-Made Likert Scale Questionnaire, meticulously aligned with the four thematic pillars of the Philippine National DRRM Framework. This expansion involves breaking down each objective into observable indicators such as the regularity of drills for Preparedness or the availability of psychological first aid for Recovery allowing respondents to rate the level of implementation on a scale from Not Implemented to Fully Implemented. Beyond just gathering raw scores, the questionnaire acts as a standardized diagnostic tool that identifies specific strengths and weaknesses across the Lagonoy North District. By incorporating a section for demographic profiling, the instrument also allows for a comparative analysis to see if teachers and students view the school's safety status through the same lens. To ensure the data is scientifically defensible, the expanded use of this tool must include a rigorous validation process by DRRM experts and a pilot test ensuring that the questions consistently measure what they are intended to measure before the actual field administration.

The research instrument underwent a systematic validation process to ensure it accurately measured the Disaster Risk Reduction Management (DRRM) parameters within the school setting. Initially, the researcher established content validity by submitting the draft questionnaire to a panel of experts, including DRRM coordinators and experienced educators, who evaluated the items for relevance, clarity, and alignment with established safety frameworks. Their feedback was integrated to refine the questions and ensure they were contextually appropriate for the Bicol region’s specific hazard landscape. Following these revisions, the researcher conducted a pilot test in Antipolo National High School, Tinambac North District, which was not part of the actual study sample. The data gathered from this pilot group was then subjected to a reliability analysis to determine the internal consistency of the items. A high coefficient result confirmed that the tool was stable and dependable, meaning it would yield consistent results across different respondents. By combining expert judgment with statistical testing, the researcher ensured that the instrument was both a valid and reliable tool for assessing the DRRM readiness of schools in the district.

In the study of Baluran (2024) conducted in Polomolok, South Cotabato, using a descriptive survey to assess the level of DRRM implementation. The study found varying levels of success across districts noting that while "Response" was consistently high, "Prevention and Mitigation" often lagged. This

justifies your use of a questionnaire to identify specific "gaps" in Lagonoy. While Cordial (2025), in a recent study on Catanduanes Island (a region with a similar typhoon-prone profile to Camarines Sur), Cordial used a perception-based questionnaire to compare the views of "providers" (school heads) and "beneficiaries" (students/parents). The study highlighted significant "perceptual disparities," proving that questionnaires are essential for uncovering if stakeholders actually feel as safe as the school records claim.

Documentary Analysis. In this research, documentary analysis serves as the primary non-intrusive method to establish the baseline profile of schools in the Lagonoy North District, specifically addressing the first set of research objectives. Unlike surveys that rely on human memory or perception, documentary analysis utilizes silent providers of information such as official records, reports, and registries to extract verifiable and longitudinal data. For the school profile, the researcher must gain access to the Enhanced Basic Education Information System (EBEIS) and the School Form 7 (SF7) to accurately record the number of students, sections, and classrooms, ensuring the data aligns with the Department of Education's official counts. For more specialized indicators like the DRRM budget and staff composition, the analysis shifts to the Annual Implementation Plan (AIP) and the School Disaster Risk Reduction and Management (SDRRM) Team Appointments, which provide documented proof of financial allocation and personnel designations rather than mere estimates.

Furthermore, documentary analysis is essential for validating the physical and operational history of the institutions. To determine the "Years of Operation" and "School Lot Area," the researcher examines the School Site Titling documents, Deeds of Donation, or Certificates of Recognition, which offer a legal and historical foundation for the study.

Lopez & Lorejo (2023) emphasized that EBEIS is the "official platform" for Philippine school data used in resource allocation and policymaking. They argue that using these official documents ensures that research data on student enrollees and classroom counts are standardized and recognized by the Department of Education (DepEd). As demonstrated by Fojas (2024) and Sumbillo & Madrigal (2020), documentary analysis is vital for cross-referencing stakeholder perceptions with official school records. By examining the EBEIS and School DRRM Plans, this study follows the evidence-based approach recommended by Lopez & Lorejo (2023) to ensure the profile of Lagonoy North District schools is accurate and legally defensible.

Procedures of Investigation

The investigation followed a systematic descriptive-correlational research process.

Research Design and Planning Phase. The investigation followed a systematic descriptive–associative–comparative research process, carried out through a series of organized and sequential steps to ensure accuracy, reliability, and ethical compliance. The initial phase involved the careful planning of the study, including the alignment of the research design with the objectives and the development of appropriate instruments such as the documentary analysis checklist and the validated survey questionnaire. These instruments were subjected to expert validation to ensure content validity, clarity, and relevance to Disaster Risk Reduction and Management (DRRM). This phase established a strong methodological foundation for the entire research process.

Securing Permissions to Conduct Study. To ensure ethical and administrative compliance, the researcher secured the necessary permits from the Department of Education (DepEd) Schools Division Office of Camarines Sur. Approval was also obtained from the Lagonoy North District Public Schools District Supervisor to allow access to the selected schools. Coordination with school heads was conducted to formally request participation and schedule data collection. This step ensured that all procedures adhered to institutional policies and ethical standards, including voluntary participation, confidentiality, and proper handling of data.

Data Collection Procedures. The data collection phase involved a dual-instrument approach to gather both objective and perceptual data. Documentary analysis and the profile checklist were first administered to obtain factual information such as student population, number of classrooms, DRRM budget, years of operation, and availability of facilities, materials, and equipment. Subsequently, the validated Likert-scale survey questionnaire was administered to school heads and DRRM coordinators to assess the level of implementation of the DRRM program across disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery. Clear instructions were provided, and retrieval of instruments was closely monitored to ensure completeness and accuracy of responses.

Data Organization and Descriptive Analysis. After data collection, all responses were organized, coded, and tabulated for analysis. Descriptive statistical tools such as frequency counts and weighted means were employed to present and interpret the data. These measures were used to categorize the level of implementation into descriptors.

Inferential Analysis and Interpretation of Results. To analyze components of the study, appropriate statistical treatment was applied to the collected data. This process enabled the identification of patterns, relationships, and variations in the stakeholders' level of implementation of the DRRM program in relation to school profile variables. The results of the statistical treatment served as the basis for interpreting the data, drawing meaningful conclusions, and identifying significant trends across the participating schools. These findings also provided essential support for evidence-based decision-making and the development of appropriate recommendations.

Formulation of Conclusions and Action Plan. The final phase involved the interpretation of results in relation to the research objectives and the development of an action plan to enhance the DRRM capabilities of schools. The conclusions drawn from the descriptive, associative, and comparative analyses guided the formulation of practical and evidence-based recommendations. These recommendations aim to strengthen implementation strategies, address identified gaps, and support continuous improvement in disaster preparedness and management within the Lagonoy North District.

Ethical Considerations

This study adhered to established ethical standards in educational and social research to ensure the protection, dignity, and rights of all participants. The following measures will be implemented.

Informed Consent. All respondents were provided with a clear explanation of the study's purpose, procedures, and their role in it. Written consent was obtained from all participants. For respondents who were minors, parental or guardian consent was secured.

Voluntary Participation. Participation in the study was entirely voluntary. Respondents were informed that they may decline to participate or withdraw at any time without penalty or consequence.

Confidentiality and Anonymity. All data collected was treated with strict confidentiality. Respondents' identities were disclosed in any part of the study. Codes or pseudonyms were used in place of names to ensure anonymity during data analysis and reporting.

Non-Maleficence. This study was designed to avoid any psychological. Emotional or physical harm to respondents. Survey and interview questions were framed respectfully and sensitively, particularly when addressing topics such as mental health and autonomy.

Data Protection. All collected data was securely stored in password-protected digital files accessible only to the researcher. Data was used solely for academic purposes and will be disposed of responsibly after the completion of the study.

Use of Artificial Intelligence (AI). AI tools, including Microsoft Copilot, were used to assist in generating research content, organizing data, and refining written outputs. AI was used to manipulate or fabricate data. Its role was limited to enhancing productivity and clarity in documentation and analysis. The researcher maintains full control over interpretation and decision-making, ensuring that AI-generated content is critically reviewed and ethically applied.

Data Analysis Techniques

Frequency Counts. It was utilized to determine the profile of schools in Lagonoy North District in terms of the number of students, number of sections, number of classrooms, number of DRRM staff, years of operations, school lot area, amount of DRRM budget, and availability of materials and equipment. This statistical tool allowed for the systematic tallying and organization of data, making it easier to present the distribution of responses and school characteristics in a clear and concise manner. Through frequency counts, the study was able to provide a concrete numerical description of the participating schools, which served as a basis for further analysis. The use of frequency counts in profiling institutional data is supported by studies such as Best and Kahn (2016) and Calderon and Gonzales (2018), who emphasized its effectiveness in summarizing categorical and numerical data in educational research.

Percentage Techniques. It was applied to complement frequency counts by converting raw data into relative values, thereby facilitating clearer interpretation and comparison of school profile variables. This statistical method was particularly useful in presenting proportions of schools based on specific characteristics, such as availability of DRRM materials and allocation of budget. By expressing data in percentages, the study provided a more meaningful understanding of how frequently certain conditions or resources are present across schools. This approach is consistent with studies conducted by Aquino (2020) and Singh and Masuku (2016), which highlighted the importance of percentage analysis in interpreting survey and profile data in educational settings.

Weighted Mean. It was employed to determine the stakeholders' level of implementation of the schools' DRRM program along disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery. Using a Likert-scale instrument, responses were assigned corresponding weights and averaged to describe the overall level of implementation using qualitative descriptors. This allowed the study to quantify perceptions and translate them into measurable indicators of program effectiveness. The use of weighted mean in assessing program implementation is supported by Acierto et al. (2023), who utilized similar techniques in evaluating school safety measures, and by Likert (1932), who established the foundation for scaling attitudes and perceptions in research.

Chi-Square Test. It was used to assess the significant association between the school profile and the stakeholders' level of implementation of the DRRM program. This statistical tool determined whether variations in school characteristics are related to differences in implementation levels. By examining the relationship between categorical variables, the study was able to identify whether certain school conditions influence the effectiveness of DRRM practices. The application of the Chi-square test in examining associations is supported by studies such as McHugh (2013) and Cohen, Manion, and Morrison (2018), who demonstrated its usefulness in analyzing relationships between variables in educational and social research.

One-Way Analysis of Variance (ANOVA). was utilized to assess the significant difference in the stakeholders' level of implementation of the DRRM program among schools. This statistical technique enabled the comparison of mean scores across multiple groups to determine whether variations in implementation levels are statistically significant. Through ANOVA, the study identified disparities among schools, which are essential in understanding whether DRRM practices are uniformly implemented or vary depending on school conditions. This method is supported by studies such as Santiago and Rivera (2024), who used ANOVA to compare disaster preparedness across schools, and by Field (2018), who emphasized its effectiveness in detecting group differences in educational research.

RESULTS AND DISCUSSION

This chapter details the research outcomes and offers an in-depth analysis aligned with the study's core objectives. Utilizing data derived from adapted questionnaires and teacher-made assessments, the findings are processed through rigorous statistical methods. These results are then contextualized within the framework of existing literature and theoretical models to clarify observed trends.

Profile of Schools in Lagonoy North District.

The profile of schools in Lagonoy North District provides a comprehensive overview of their key characteristics, including student population, number of sections, classroom availability, DRRM personnel, years of operation, school lot area, budget allocation, and available materials and equipment.

Table 2 provides a comprehensive profile of seventeen schools within the Lagonoy North District, detailing their operational capacities and resource allocations. The student population across these institutions varies significantly, ranging from as few as 42 students in School C to a high of 384 students in School O. In terms of infrastructure and staffing, the majority of the schools operate with a single

DRRM staff member, though School N and School O are notable exceptions with nine and seven staff members, respectively. The historical data reveal a broad spectrum of experience,

School C has operated for 120 years, while Schools D, N, and Q are relatively new, with only 3 years of operation. Furthermore, land area and financial resources fluctuate between sites; for instance, School I and School Q occupy 20,000 sqm, while School C occupies only 500 sqm. Regarding disaster preparedness, the availability of DRR materials is inconsistent across the district, with nine schools reporting "yes" for availability and eight schools reporting "no". The distribution of academic sections and classes generally aligns with student population sizes, with School O managing the highest volume at 16 sections and 14 classes. Financial allocations for Disaster Risk Reduction (DRR) are concentrated in only three institutions, Schools C, D, and O, while the remaining fourteen schools report a budget of zero for these specific initiatives.

Table 2

Profile of Schools in Lagonoy North District

School	Students	Sections	No. of Classes	DRRM Staff	Years Operation	School Land Area	Budget	Availability of DRR Materials
A	128	7	7	1	56	11 129	0	Yes
B	218	8	7	1	78	2000	0	Yes
C	42	5	2	1	120	500	20,000	Yes
D	121	6	6	3	3	10,000	25,000	No
E	131	1	5	1	40	10000	0	No
F	325	14	14	0	73	15000	0	No
G	138	6	4	1	68	10000	0	No
H	226	10	10	1	6	10000	0	Yes
I	147	6	7	1	63	20,000	0	Yes
J	125	6	6	1	65	10000	0	No
K	250	8	8	1	77	20,000	0	No
L	250	13	13	2	79	10,000	0	No

M	282	2	14	1	78	12,000	0	Yes
N	129	4	4	9	3	9,400	0	No
O	384	16	14	7	29	10,388	25,000	Yes
P	337	12	14	1	56	10,000	0	Yes
Q	118	5	5	1	3	20,000	0	Yes

Note. Table 2 summarizes the profile of schools in Lagony North District, including student population, classes, DRRM staff, years of operation, land area, budget, and availability of DRR materials.

Analysing the data, Lagonoy North District reveals a landscape of significant operational disparities and inconsistent resource allocation across seventeen schools. While some schools serve as the district's primary hub with the highest student population and academic volume, some schools represent the historical anchor of the district, having operated for several decades despite occupying a minimal land area. A critical concern emerges in the realm of Disaster Risk Reduction (DRR), where financial support is restricted to some of the schools, leaving fourteen institutions with a budget of zero. Furthermore, staffing for safety is heavily skewed; while most schools operate with only a single staff member, the relatively new School N is remarkably well-resourced with nine DRRM staff. This lack of standardization is further evidenced by the fact that nearly half of the schools lack basic DRR materials, suggesting that a student's level of safety and access to modern facilities is largely determined by the specific institution they attend rather than a unified district-wide standard.

It can be inferred that the data from Lagonoy North District reveals a systemic decoupling of institutional needs from resource allocation, creating a geographic lottery where a student's safety depends on their specific school rather than a unified district standard. This stark disparity, exemplified by School N's staffing surplus versus the zero-budget status of fourteen other institutions, suggests that funding is driven by administrative or political prioritization rather than a vulnerability-based assessment. Consequently, the district operates in a state of operational fragility, where a single staff member is often responsible for the entire safety apparatus of a campus. The lack of standardized DRR materials indicates that historical and high-volume schools are being allowed to stagnate while resources are concentrated in a few flagship locations. Ultimately, without a centralized, needs-based redistribution of assets, the district remains structurally ill-equipped to manage a large-scale emergency across its broader network.

The operational landscape of Lagonoy North District reflects a systemic fragmentation where resource distribution is governed by institutional history rather than contemporary safety requirements. Research by Mamon et al. (2023) on spatial vulnerability in aging schools directly mirrors the historical anchor dilemma, suggesting that schools with minimal land area and decades of operation often face a double jeopardy of being too cramped for modern evacuation protocols while simultaneously being overlooked for infrastructure upgrades. This inequity is exacerbated by the postcode lottery of Disaster Risk Reduction (DRR) funding; as explored in Mamlo's (2022) studies on School-Based Management,

decentralized budgeting frequently fails institutions that lack hub status, explaining why fourteen schools in the district are left with a zero DRR budget.

Furthermore, the staffing anomaly of School N boasting nine DRRM staff against the single-staff reality of its peers aligns with findings by Villanueva and Cruz (2021) regarding staffing pattern disparities. Their work indicates that newer institutions are often benchmarked against modern safety standards during their inception, while older schools remain trapped in legacy staffing structures that provide only the bare minimum. Ultimately, as Baker et al. (2020) argue in their analysis of funding clumping, the concentration of resources in primary hubs creates a district-wide environment where a student's physical safety and access to modern facilities are incidental to the specific gate they enter, rather than being guaranteed by a unified, standardized mandate.

This discussion is anchored in Systems Theory, which emphasizes that organizations function as interconnected units. Sections operate as subsystems within the school. Effective coordination among subsystems enhances system stability. When sections are well-managed, overall preparedness improves. Organizational coherence strengthens resilience. This finding also recognizes physical infrastructure as an essential system component. Classrooms interact with human and organizational elements. Weak infrastructure affects overall system performance. Balanced infrastructure strengthens system resilience. Physical systems support preparedness, which is explained by Systems Theory, which recognizes the physical environment as a core system component. Space interacts with human and organizational elements. Limited space constrains system performance. Adequate physical systems enhance resilience. Likewise, this finding is supported by the Protection Motivation theory, which states that organizations depend on critical resources to function effectively. Human resources are essential assets. Schools with sufficient DRRM staff have greater operational capacity. Resource availability shapes preparedness.

Stakeholders' Level of Implementation of the Schools' DRRM Program

This section presents the stakeholders' perceived level of implementation of the schools' DRRM program and looks at how well the institution transitions from planning to action. This assessment was grounded in four thematic pillars that cover the entire disaster lifecycle along the disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery. These are presented in Tables 3a to 3d.

Disaster Preparedness. Table 3a shows the stakeholders' level of implementation of the schools' DRRM in terms of disaster preparedness. It can be seen that the top indicator perceived by the stakeholders was "defines role and responsibilities in a functional DRRM committee, contingency plans are available and always regularly reviewed, and earthquake and fire drills are conducted regularly and are familiar to students and staff" with a weighted mean of 3.13. Middle ranks were "integrates DRRM concepts across learning areas, teachers and other staff received basic DRRM orientation, and students are generally aware of basic disaster response procedures and advanced preparedness skills" with a weighted mean of 3.05, and "conducts hazard mapping activities with hazard-prone areas clearly identified and documented, buildings undergo safety inspection, evacuation routes are posted, assembly areas are designated and known to the school community, and safety signages are visible in most areas" with a weighted mean of 3.02, ranked second and third respectively.

Also, “Places early warning and communication systems that are consistently tested, and emergency kits and supplies are present and sufficient in quantity or completeness” with a weighted mean of 2.87 ranked fourth, while “involves parents and community members in DRRM planning and activities” with a weighted mean of 2.86 ranked fifth. The average weighted mean for all indicators is 2.99, which carries a verbal interpretation of implemented.

The school’s indicate a indicating a functional disaster preparedness program, but not yet an exhaustive approach to safety. The strongest aspect of the program lies in organizational readiness, specifically through the defined roles of the DRRM committee and the regular conduct of earthquake and fire drills. This is supported by the effective integration of disaster concepts into the curriculum and basic orientations for students and staff. Furthermore, the involvement of parents and the community in planning remains the least developed area of the program. Overall, while internal protocols are solid, reaching a fully implemented status would require more consistent logistical upkeep and stronger external partnerships.

Table 3a

Stakeholders' Level of Implementation of the Schools’ DRRM Program in terms of Disaster Preparedness

Indicators	WM	Int.	Rank
Conducts hazard mapping activities with hazard-prone areas clearly identified and documented.	3.02	I	3
Defines role and responsibilities in a functional DRRM committee, contingency plans are available, and are always regularly reviewed.	3.13	I	1
Integrates DRRM concepts across learning areas, teachers and other staff receive basic DRRM orientation, and students are generally aware of basic disaster response procedures and advanced preparedness skills.	3.05	I	2
Places early warning and communication systems that are consistently tested.	2.87	I	4
Involves parents and community members in DRRM planning and activities.	2.86	I	5
Average Weighted Mean	2.99	I	

Note: WM-Weighted Mean, Int.=Interpretation, AWM=Average Weighted Mead, Range 3.25-4.00=Fully Implemented (FI) ,2.51-3.25=Implemented (I), 1.76-2.5o=Slightly Implemented (SI), 1.00-1.75=Not Implemented (NI)

Looking closely at the results, it can be inferred that the findings indicate that disaster preparedness among the schools in Lagonoy North District is generally implemented, with most indicators reflecting active but still developing practices. The highest-rated indicator suggests that schools are more consistent in establishing organizational structures, maintaining contingency plans, and conducting regular drills, which reflects stronger emphasis on procedural readiness. However, slightly lower ratings in areas such as early warning systems, availability of emergency supplies, and community involvement suggest gaps in resource adequacy and stakeholder engagement. Overall, the results imply that while foundational preparedness mechanisms are in place, further strengthening is needed in operational readiness and community integration to achieve a more comprehensive and sustained level of disaster preparedness across schools.

The literature suggests a shift from general preparedness (one-size-fits-all) toward localized resilience, where success is measured by student competence, structural integrity, and the ability to maintain education during crises. The results are mirrored in the stakeholder perspective, as Pasion (2022) and Epe (2024) observe that while policy awareness is high, actual student knowledge and hands-on capability remain "average." The human and technical dimensions present further challenges; Malahay (2025) and Rofiah (2025) highlight the plight of educators in high-risk zones and inclusive schools who lack the structural assessments and specialized infrastructure necessary for genuine safety. To address these gaps, researchers like Alcayna et al. (2025) and Dela Cruz and Ormilla (2022) advocate for a shift from generalized national policies to localized, budget-transparent action plans. This evolution is underpinned by the Comprehensive School Safety Framework (CSSF) 2022–2030 and DepEd Order No. 37, s. 2022, which moved the metric of success from simple emergency drills to "educational continuity" and multihazard resilience. Ultimately, the literature suggests that "perceived implementation" is a social construct built on trust in leadership (American Journal of Education, 2025) and the visible protection of the most vulnerable populations (UNICEF, 2025), necessitating a transition from planning centers to resource-equipped hubs of active community participation.

The implementation of the school DRRM program reflects a strong alignment with the Threat Appraisal phase of Protection Motivation Theory (PMT). The high prioritization of functional DRRM committees and regular drills suggests that the school community perceives a high degree of severity and vulnerability regarding disasters like earthquakes and fires. This perception of risk drives the protection motivation to establish formal safety protocols and hazard mapping. However, the results also highlight a potential gap in Coping Appraisal, specifically regarding response costs and self-efficacy. The lower rankings for maintaining sufficient emergency kits and involving parents in planning indicate that while the school understands the threat, the perceived cost or difficulty of maintaining physical resources and community engagement may be hindering full implementation.

Disaster Prevention and Mitigation. Table 3b presents the stakeholders' perceived level of implementation of the schools' DRRM in terms of disaster prevention and mitigation. The school community demonstrates its highest level of performance in "identifies the major hazards that may affect them" garnering a weighted mean of 3.07. This is closely followed by "clears evacuation routes and emergency exits" which ranks second with a weighted mean of 3.02. The third ranked indicator involves "identifies students and staff who are most vulnerable during disasters" which received a weighted mean of 2.91. Trailing slightly behind is "uses environmental management practices to reduce hazard impacts"

ranking fourth with a weighted mean of 2.88. The lowest ranked area of implementation is "allocates resources for disaster prevention and mitigation activities" which has a weighted mean of 2.75. Despite these variations in ranking, all individual indicators as well as the overall average weighted mean of 2.92 fall within the range of 2.51 to 3.25 resulting in a verbal interpretation of implemented.

Table 3b

Stakeholders' Level of implementation of the schools' DRRM program in terms of Disaster Prevention and Mitigation

Indicators	WM	Int.	Rank
Identifies students and staff who are most vulnerable during disasters.	2.91	I	3
Identifies the major hazards that may affect its community.	3.07	I	1
Clears evacuation routes and emergency exits.	3.02	I	2
Uses environmental management practices to reduce hazard impacts.	2.88	I	4
Allocates resources for disaster prevention and mitigation activities.	2.75	I	5
Average Weighted Mean	2.92	I	

Note. WM-Weighted Mean, Int.=Interpretation, AWM=Average Weighted Mead, Range 3.25-4.00=Fully Implemented (FI) ,2.51-3.25=Implemented (I), 1.76-2.5o=Slightly Implemented (SI), 1.00-1.75=Not Implemented (NI)

The results suggest that schools are most proficient at the conceptual and preparatory stages of mitigation, specifically identifying hazards and clearing physical paths for exit. These are foundational tasks that require more organizational effort than financial capital. However, there is a noticeable decline in scores as the indicators move toward resource-heavy requirements. The lowest rank for resource allocation, which is rank 5, implies that while the school identifies risks, it struggles to secure or distribute the actual funding and materials needed to actively mitigate those risks. This indicates a planning-execution gap where the knowledge of what needs to be done outpaces the financial capacity to do it.

It can be inferred that while school administrators and staff are highly capable of recognizing risks and mapping out what should be done, they face significant hurdles in securing the actual budget or materials needed to execute those preventive measures. Likewise, the schools have successfully mastered

the administrative side of mitigation, like identifying hazards and exits, but are limited by a lack of dedicated funding and a less-developed focus on long-term environmental safety. This gap between strategic planning and physical execution often results in a preparedness paradox, where high-quality safety protocols exist primarily on paper while the actual infrastructure remains vulnerable. Consequently, the burden of resilience falls on resourceful but underfunded personnel who must navigate the constant tension between meeting comprehensive safety standards and operating within restrictive fiscal realities.

The results reveal a critical implementation gap in Philippine school-based disaster management, where high administrative compliance often masks a lack of tangible physical and technical readiness. Baluran (2023) and Castillo et al. (2026) identify this as a mastery of paperwork over actual hazard mitigation, a sentiment echoed by Acierto, Robas, and Monte (2023) and Dela Cruz and Ormilla (2022), who emphasize that without dedicated budgets for structural retrofitting and drainage systems, prevention remains largely theoretical. This lack of precision is further noted by Abregana (2025), who points out the reliance on generic rather than site-specific hazard mapping. Beyond infrastructure, Luminarias and Liquido (2025) and Pandapatan (2024) describe a resource-awareness paradox where stakeholder knowledge is high, but the technical skills for risk assessment are absent, a situation Viado (2023) finds worsened in rural areas by non-functional or improvised equipment. While Valeria et al. (2024) and Pasion (2022) note that specialized schools struggle with the non-structural challenge of tailoring disaster education to diverse cognitive needs, Cubillas et al. (2022) and the PMC (2025) synthesis conclude that true safety is only achievable through better synergy between school-based planning and municipal-level engineering projects.

The alignment of the school's DRRM program with Capacity Building Theory emphasizes the process by which an organization develops and strengthens its skills, instincts, and resources to survive and adapt in a high-risk environment. According to this theory, capacity is not a static state but a developmental hierarchy that begins with Institutional Knowledge. This is evidenced by the school's highest-rated indicator identifying major community hazards, which demonstrates a foundational cognitive capacity to perceive and analyze risk. The theory further posits that for knowledge to become resilience, it must be converted into functional capacity. The school achieves this through the clearing of evacuation routes, signifying a transition from planning to physical readiness.

However, Capacity Building Theory also highlights that the most sophisticated human skills remain vulnerable without resource capacity, which serves as the structural backbone of any program. The fact that allocating resources for prevention and mitigation received the lowest rank identifies a capacity gap. From a theoretical standpoint, this suggests that while the school has successfully built its intellectual and technical competencies to an "Implemented" level, it lacks the sustained financial and material investment required to reach "Full Implementation". Ultimately, the data illustrate a school in the middle stage of capacity maturity, where the human and procedural pillars are strong, but the supportive pillar of resource allocation requires further strengthening to ensure long-term sustainability.

Disaster Response. Table 3c reveals the stakeholders' perceived level of implementation regarding the schools' DRRM program in terms of disaster response. The highest-rated indicator involves the "functional toilets and handwashing facilities are available after a disaster, cleanliness of facilities is maintained to prevent health risks, and waste disposal is properly managed during emergency situations",

which earned a weighted mean of 3.02. Ranking second is the implementation of “clears procedure for search, rescue, and evacuation during disasters, teachers and staff are trained in basic life-saving skills (first aid, CPR, basic rescue), and there is a system for accounting for all students and staff during and after a disaster”, with a weighted mean of 2.93. The third rank is held by the “designates a medical area or safe space for treatment, with coordination with local health units or emergency responders, and procedures are in place for referral to hospitals when necessary”, scoring a weighted mean of 2.90. Indicators with lower implementation levels include the “maintains reliable backup power, communications, and learning continuity options”, and “provides mental health and psychosocial support after incidents”, with weighted mean of 2.76 and 2.69 which ranked fourth and fifth, respectively. Overall, the disaster response component achieved an average weighted mean of 2.86, resulting in a verbal interpretation of "Implemented". The school DRRM program is effectively "Implemented" but remains in a state of compliance-based readiness rather than resilient excellence. The program is strongest at the start (Planning/Preparedness) and weakest at the point of action (Response).

Table 3c

Stakeholders' Level of Implementation of the Schools’ DRRM Program in terms of Disaster Response

Indicators	WM	Int.	Rank
Clears procedure for search, rescue, and evacuation during disasters, teachers and staff are trained in basic life-saving skills (first aid, CPR, basic rescue), and there is a system for accounting for all students and staff during and after a disaster.	2.93	I	2
Designates a medical area or safe space for treatment, with coordination with local health units or emergency responders, and procedures are in place for referral to hospitals when necessary.	2.90	I	3
Maintains the cleanliness of facilities, waste disposal is properly managed during emergency situations, and functional toilets and handwashing facilities are available after a disaster.	3.02	I	1
Maintains reliable backup power, communications, and learning continuity options	2.76	I	4
Provides mental health and psychosocial support after incidents.	2.69	I	5
Average Weighted Mean	2.86	Implemented	

Note. WM-Weighted Mean, Int.=Interpretation, AWM=Average Weighted Mead, Range 3.25-4.00=Fully Implemented (FI) ,2.51-3.25=Implemented (I), 1.76-2.5o=Slightly Implemented (SI), 1.00-1.75=Not Implemented (NI)

These indicate that the schools in Lagonoy North District demonstrate an overall implemented level of performance, with certain strengths concentrated on immediate health, sanitation, and basic safety provisions during and after emergencies. The highest-rated indicator suggests that schools prioritize maintaining functional sanitation facilities and proper waste management, reflecting a strong awareness of health risk prevention in post-disaster situations. This is followed closely by established procedures for evacuation, search and rescue, and basic life-saving skills among teachers and staff, indicating that operational response protocols are in place but still require strengthening in execution consistency and training depth. The presence of designated medical areas and coordination mechanisms with health units further shows that structural response systems exist, although their effectiveness may vary depending on actual disaster conditions.

However, the lower-rated indicators point to notable gaps in more advanced and sustained response capacities. The limited implementation of backup power systems, communication continuity measures, and learning continuity strategies suggests vulnerability in maintaining essential services during prolonged disruptions. Similarly, the relatively low rating for mental health and psychosocial support highlights an area that is often underdeveloped despite its importance in post-disaster recovery. Overall, while the disaster response component is functionally implemented, the results imply that it remains largely compliance-driven rather than resilience-oriented, with stronger emphasis on basic response structures than on comprehensive recovery and continuity systems.

It can be inferred that while schools can execute traditional response activities like evacuation and sanitation, they remain significantly less prepared for the modern and holistic requirements of disaster recovery, such as maintaining digital communication through power outages and addressing the mental health trauma of the school community. This disparity highlights a shift in disaster management where physical checklists are no longer sufficient, as the intangible infrastructure, specifically data systems and social cohesion, remains precariously exposed to technical collapse. Furthermore, the narrow focus on physical repairs often overlooks the profound psychological toll on students and faculty, ignoring the fact that restoring a building is far simpler than restoring a sense of safety.

The results highlight a recurring compliance-capability gap where schools often mistake administrative paperwork and visible markers for true operational readiness (Cordial, 2025; Yang et al., 2025). While stakeholders including students and teachers frequently report high levels of "theoretical" preparedness, their actual response skills remain moderate due to a lack of specialized equipment and hands-on simulation (Sabanal Baluran, 2023; Viado, 2023; Comighud, 2020). Also, a major point of consensus is that community and student engagement—such as participatory mapping and family involvement—significantly bolsters the perceived reliability of DRRM protocols (Arao Arao et al., 2023; Cruz & Ormilla, 2022; Mella et al., 2021). However, researchers differ on the primary barriers to success: some point to a need for transformational leadership to secure resources (Sabanal, 2024), while others argue that budgetary constraints and poor infrastructure remain the ultimate "glass ceiling" regardless of stakeholder intent (Cubillas, 2018).

The results of the schools' DRRM program implementation in Lagonoy North District align with Protection Motivation Theory (PMT) by demonstrating how coping appraisal, the evaluation of one's ability to manage a threat, influences disaster response. High response efficacy is evident in the top-ranked indicator for maintaining functional toilets and handwashing facilities, suggesting stakeholders believe these specific actions are highly effective at preventing health risks during emergencies. Self-efficacy is reflected in the training of teachers and staff in life-saving skills like CPR and basic rescue, which builds the internal confidence and capability required to perform protective behaviors. Conversely, lower scores in mental health support and backup power systems highlight response costs, where perceived barriers such as lack of resources or technical difficulty may reduce the motivation to fully implement these specific protective measures. This disparity suggests that the school's motivation is currently skewed toward immediate physical survival rather than holistic recovery, as seen in the "Implemented" status across most indicators. Ultimately, strengthening the perceived value of these lower-ranked services could bridge the gap between basic compliance and a fully realized protective environment.

Rehabilitation and Recovery. Table 3d details the stakeholders' perceived level of implementation of the schools' DRRM program regarding rehabilitation and recovery. The highest-ranking indicator is the prompt "restores teaching and learning activities promptly after disasters, temporary learning spaces are provided when school facilities are under rehabilitation, and learning materials and equipment lost due to disasters are adequately replaced or upgraded", which achieved a weighted mean of 2.95. This is followed by the "implements assistance programs to support teachers, staff, and learners' recovery needs", ranking second with a weighted mean of 2.84. The "integrates safety standards and hazard-resistant features during post-disaster reconstruction" ranks third with a weighted mean of 2.81. Lower implementation is observed in the "initiates rehabilitation and recovery considering long-term risk reduction and sustainability, and the stakeholders participate in planning to ensure inclusive and resilient recovery outcomes", which ranks fourth with a weighted mean of 2.78. The lowest-ranked indicator is the "provides psychosocial support services to students and school personnel affected by disasters", with a weighted mean of 2.76. Overall, the rehabilitation and recovery phase attained an average weighted mean of 2.84, which falls within the "Implemented" range.

Table 3d

Stakeholders' Level of implementation of the schools' DRRM Program in terms of Rehabilitation and Recovery

Indicators	WM	Int.	Rank
Integrates safety standards and hazard-resistant features during post-disaster reconstruction.	2.81	I	3
Restores teaching and learning activities promptly after disasters, temporary learning spaces are provided when school facilities are	2.95	I	1

Note.	under rehabilitation, and learning materials and equipment lost due to disasters are adequately replaced or upgraded.			WM-
	Provides psychosocial support services to students and school personnel affected by disasters.	2.76	I	5
	Implements assistance programs to support teachers, staff, and learners' recovery needs.	2.84	I	2
	Initiates rehabilitation and recovery, considering long-term risk reduction and sustainability, and the stakeholders participate in planning to ensure inclusive and resilient recovery outcomes.	2.78	I	4
	Average Weighted Mean	2.84	Implemented	

Weighted Mean, Int.=Interpretation, AWM=Average Weighted Mead, Range 3.25-4.00=Fully Implemented (FI) ,2.51-3.25=Implemented (I), 1.76-2.5o=Slightly Implemented (SI), 1.00-1.75=Not Implemented (NI

The school's DRRM program is successfully implemented, but has not reached the fully implemented stage in any category. The program is characterized by strong internal administration and physical safety protocols, but it is undermined by low community involvement, inadequate technical redundancy, and a lack of psychological support services. This "Implemented" status suggests a functional foundation that manages to meet basic compliance requirements but fails to achieve the holistic resilience necessary for complex, modern crises. Consequently, the program remains a centralized administrative effort rather than a deeply rooted community culture, leaving the institution vulnerable to long-term social and technical disruptions that extend far beyond the initial emergency.

It can be inferred that the schools are prepared to survive a disaster but are not yet equipped to recover from one efficiently. Therefore, the focus must shift from basic compliance to securing dedicated funding for technical infrastructure and institutionalizing mental health support for students and staff. Moving beyond physical safety requires a paradigm shift that views recovery as a multi-dimensional process involving technological resilience and psychological healing rather than just structural repair. Without this holistic expansion, the school remains trapped in a cycle of temporary fixes that fail to address the long-term disruptions to the educational environment and the well-being of its members.

The results underscore a consistent rehabilitation gap in DRRM implementation. Studies by Daminar (2026), Balanggoy (2024), and Sabanal Baluran (2023) agree that while school preparedness and immediate response are rated "high" due to institutionalized drills, the recovery phase remains "moderate" and reactive. A primary similarity across the literature is that administrative capacity is strong in technical compliance but weak in long-term execution, often hindered by funding gaps and infrastructure delays (Gaudiel, 2023). However, the studies differ on the specific nature of these recovery failures: Alcayna et

al. (2022) and Cubillas et al. (2022) point to a lack of specialized equipment and monitoring, whereas Libre and Tarun (2025) and Yunus et al. (2024) argue that the true deficiency is a lack of psychosocial care and trauma-informed learning. Ultimately, the literature converges on the role of leadership, with Comighud (2020) and Villarin (2023) suggesting that successful rehabilitation depends less on formal guidelines and more on a leader's ability to mobilize community resources.

The results show alignment with the Systems Management Theory concept, which reveals a school environment functioning as an open system that must balance various internal subsystems to recover from external environmental shocks. The theory posits that an organization is a set of interrelated parts; here, the educational subsystem is prioritized, as evidenced by the highest ranking for restoring teaching and learning activities promptly after disasters. This aligns with the systemic goal of maintaining core operations to prevent total entropy, or organizational decay, by ensuring learning materials are replaced, and temporary spaces are provided. However, a contrast arises in the human subsystem; while the theory suggests all parts are interdependent for total health, the data show that psychosocial support services for students and personnel rank lower than immediate assistance programs and infrastructure needs. With an overall average interpretation of "Implemented," the system is currently in a state of homeostasis; it has successfully returned to a functional level but has not yet reached the "Fully Implemented" synergy required for total resilience and long-term sustainability.

Summary. Table 3e provides a summary of the stakeholders' perceived level of implementation of the schools' Disaster Risk Reduction and Management (DRRM) program across four thematic areas. Among these areas, "Disaster Preparedness" received the highest rating with an average weighted mean of 2.99. This is followed by "Disaster Prevention and Mitigation" with an average weighted mean of 2.92, and "Disaster Response" with an average weighted meanof 2.86. The area of "Disaster Rehabilitation and Recovery" received the lowest rating, garnering an average weighted mean of 2.84. Despite these differences in ranking, all four components, along with the Overall AWM of 2.90, fall within the 2.51–3.25 range. Consequently, the stakeholders perceive the entire DRRM program and its individual components as being "Implemented".

Table 3e

Summary of the Stakeholders' Level of Implementation of the Schools' DRRM Program

ASPECTS	AWM	Int.
Disaster Preparedness	2.99	I
Disaster Prevention and Mitigation	2.92	I
Disaster Response	2.86	I
Disaster Rehabilitation and Recovery	2.84	I

Overall AWM	2.90	Implemented

Note. WM-Weighted Mean, Int.=Interpretation, AWM=Average Weighted Mead, Range 3.25-4.00=Fully Implemented (FI) ,2.51-3.25=Implemented (I), 1.76-2.5o=Slightly Implemented (SI), 1.00-1.75=Not Implemented (NI)

The results indicate that stakeholders generally perceive the Disaster Risk Reduction and Management (DRRM) program in the schools as being implemented across all thematic areas. This suggests that schools in the district have made consistent efforts to integrate disaster risk reduction practices into their institutional programs and activities. The relatively higher perception of implementation in disaster preparedness reflects the schools' emphasis on proactive measures such as planning, awareness activities, and capacity-building initiatives that help learners and personnel anticipate potential hazards. Likewise, the positive assessment of disaster prevention and mitigation implies that schools are undertaking actions aimed at minimizing risks and strengthening protective measures within the school environment. The findings also indicate that response-related activities are recognized by stakeholders, highlighting the presence of mechanisms that enable schools to act promptly during emergency situations. Meanwhile, the comparatively lower perception in rehabilitation and recovery suggests that post-disaster restoration and long-term rebuilding processes may require further strengthening and sustained support. Overall, the results demonstrate that while the DRRM program is generally implemented in the schools, there remains an opportunity to further enhance certain components to ensure a more comprehensive and balanced approach to disaster resilience.

It can be inferred that the schools are structurally prepared but resource limited. They possess the administrative framework to anticipate disasters, but their ability to sustain operations and provide holistic recovery is hindered by weaknesses in technical redundancy and emotional support systems. To improve, the focus must shift from basic compliance to securing the specialized resources and community partnerships needed for the recovery phase. Specifically, this transition requires the integration of psychological first aid and mental health initiatives into existing safety protocols to address the human element of disaster impact. Ultimately, bridging the gap between bureaucratic readiness and functional capacity will ensure that these institutions can offer a stable environment for both academic continuity and long-term community healing**.**

Based on the results, this study noted that school administrators demonstrated capacity in institutional planning and resource management. The study conducted in Cabadbaran City (2026) assessed the implementation of Republic Act 10121 and found consistent implementation ratings across the same four thematic areas: prevention and mitigation, preparedness, response, and recovery. Complementing these findings, research in the District of Motiong, Samar (2025) highlighted that while schools maintained robust School Disaster Risk Reduction Management (SDRRM) systems, a critical gap exists in translating national policies into practical, context-specific actions at the grassroots level. Furthermore, a 2026 study in Region XII underscored the significant correlation between administrative awareness and the effectiveness of disaster preparedness, suggesting that high leadership competence in identifying both natural and man-made hazards is essential for the successful execution of safe learning facility protocols.

The Protection Motivation Theory (PMT) is relevant to the results because it provides a psychological lens through which to interpret the stakeholders' level of implementation of the schools' Disaster Risk Reduction and Management (DRRM) program. PMT suggests that individuals engage in protective behaviors based on two cognitive processes: threat appraisal, which involves evaluating the severity of a danger, and coping appraisal, which involves evaluating one's ability to respond to that danger. The data provided reflects a successful transition from these internal motivations to external actions, as the overall perception falls within the Implemented range. Specifically, the highest perceived implementation is found in Disaster Preparedness, which aligns with a strong coping appraisal where stakeholders feel most effective when engaging in proactive, organized readiness. In contrast, the lower relative scores for Disaster Response and Disaster Rehabilitation and Recovery might indicate a perceived response cost or a slight decrease in self-efficacy when facing the unpredictable complexities of an active or post-disaster environment. This suggests that while stakeholders feel capable of planning, they may perceive the actual execution and long-term recovery as more resource-intensive or difficult to manage. Furthermore, the consistency across all categories indicates that the protection motivation is not just an individual sentiment but has been institutionalized into a functional school culture. Ultimately, while PMT focuses on the internal intent to protect, the stakeholders' feedback confirms that this motivation has been consistently operationalized across all pillars of the school's DRRM framework.

Significant Associations between School Profile and Stakeholders' Level of Implementation of the DRRM Program

The test among significant associations was conducted to determine whether the school profile variables are related to the stakeholders' level of implementation of the Disaster Risk Reduction and Management (DRRM) program. This analysis aims to identify whether certain characteristics of schools influence how DRRM initiatives are carried out and perceived by stakeholders.

The test on significant associations between school profile and stakeholders' level of implementation of the DRRM program shows varying chi-square values across different profile indicators. The number of students obtained a chi-square value of 255 with a p-value of 0.242. The number of sections recorded a chi-square value of 187 with a p-value of 0.271. The number of classrooms yielded a chi-square value of 136 with a p-value of 0.298. The number of DRRM staff obtained a chi-square value of 85 with a p-value of 0.330. The years of operation recorded a chi-square value of 204 with a p-value of 0.263. The school lot area also showed a chi-square value of 136 with a p-value of 0.298. The amount of DRRM budget obtained a chi-square value of 34 with a p-value of 0.371. Lastly, the availability of materials and equipment recorded the lowest chi-square value of 17 with a p-value of 0.386. All indicators were interpreted as not significant based on their corresponding p-values.

Table 4

Significant Associations between School Profile and Stakeholders' Level of Implementation of the DRRM Program

Profile	Implementation of DRRM	X^2	p-value	Int.

Number of students	Implementation of the DRRM program	255	0.242	NS
Number of sections		187	0.271	NS
Number of classrooms		136	0.298	NS
Number of DRRM staff		85	0.330	NS
Years of operation		204	0.263	NS
School lot area		136	0.298	NS
Amount of DRRM budget		34	0.371	NS
Availability of materials and equipment		17	0.386	NS

Note. χ^2 = chi-square value; Int. = interpretation; p > .05 = not significant (NS); p ≤ .05 = significant.

The results of the chi-square test indicate that all school profile variables, including number of students, number of sections, number of classrooms, number of DRRM staff, years of operation, school lot area, amount of DRRM budget, and availability of materials and equipment, yielded p-values ranging from 0.242 to 0.386. All of these values are higher than the level of significance, which indicates that none of the computed chi-square values provide sufficient evidence of a statistically significant association with the stakeholders' level of implementation of the DRRM program. Although the chi-square values vary across indicators, with the highest value observed in number of students and the lowest in availability of materials and equipment, these differences do not translate into meaningful statistical relationships. This pattern suggests that variations in school profile characteristics do not significantly influence how DRRM programs are implemented across the schools. In other words, regardless of differences in size, resources, staffing, or duration of operation, the level of DRRM implementation remains relatively consistent among the participating schools. The findings imply that implementation practices may be more influenced by standardized policies, external mandates, or shared district-level practices rather than by internal school profile differences.

Based on the analysis, it can be inferred that stakeholders' perceptions of the DRRM program are independent of school profile characteristics. The lack of significant associations suggests that other factors such as the quality of training, leadership commitment, or community involvement may play a more critical role in shaping stakeholders' perceptions than structural or resource-based variables. In practical terms, this implies that improvements in DRRM implementation should focus more on program processes and engagement strategies rather than relying solely on school profile indicators like budget or staff numbers. Consequently, a one-size-fits-all approach based on institutional size or funding may be less effective than tailored interventions that prioritize organizational culture and active participation. Moving forward, policymakers should look beyond demographic data to investigate the qualitative drivers

of program success, ensuring that safety initiatives are deeply embedded in the school's daily operations and values.

The findings of this study are consistent with prior research indicating that organizational size or resources do not always determine the effectiveness or perception of disaster preparedness programs. For example, studies by Smith and Petley (2009) and Shaw et al. (2011) emphasized that community participation, awareness campaigns, and staff competency are often stronger predictors of DRRM success than the mere presence of physical resources. Similarly, research in Philippine schools by Cruz (2018) found that stakeholder perception of DRRM implementation depended more on training programs and drills rather than the size or budget of the school. These studies reinforce the conclusion that qualitative aspects of program implementation can outweigh quantitative school characteristics.

The results can also be understood through the lens of Capacity Building Theory and Systems Theory**.** Organizational Theory suggests that a school's culture, leadership, and stakeholder engagement strongly influence program implementation outcomes, whereas Resource Dependence Theory posits that while resources matter, organizations can effectively adapt and achieve goals through strategic use of available resources. The absence of significant associations in Table 4 aligns with these theories, highlighting that stakeholder perceptions of DRRM program implementation are more influenced by internal organizational dynamics and strategic processes than by measurable structural variables.

Significant Differences in Stakeholders' Level of Implementation of the DRRM Program among Schools

This section presents the comparative analysis of the stakeholders' level of implementation of the Disaster Risk Reduction and Management program across schools in Lagonoy North District. It examines whether variations exist among schools in terms of disaster preparedness, disaster prevention and mitigation, disaster response, and disaster rehabilitation and recovery, based on stakeholders' responses. The test on significant differences was conducted to determine whether stakeholders' levels of implementation of the Disaster Risk Reduction and Management (DRRM) program vary across different schools. This analysis examines whether there are meaningful variations in how the DRRM program is implemented and perceived, highlighting schools that may be performing better or need improvement.

Table 5 presents the results of a one-way ANOVA conducted to determine whether there are significant differences in stakeholders' perceived levels of implementation of the Disaster Risk Reduction and Management (DRRM) program across 17 schools. A one-way ANOVA was used because it is robust to violations of the assumption of homogeneity of variances. The analysis revealed a statistically significant difference among group means, F (26.40, 16.18) = 2.82, $p < .001$, indicating that at least one school's mean perception differs significantly from the others. To identify which specific schools differed, a Tukey post hoc test was conducted. The post hoc analysis showed that while many comparisons were not statistically significant, several group pairs exhibited significant differences ($p < .05$), particularly involving Groups 10, 13, 14, 15, and 16.

Table 5

Significant Differences in Stakeholders' Levels of Implementation of the DRRM Program among Schools

Differences in stakeholders' perceived levels of implementation of	F	p-value	Int.
DRRM program across schools	17.2	0.001	Significant

Note. F=F Statistics; Int. = interpretation; $p > .05$ = not significant (NS); $p \leq .05$ = significant.

The One-Way ANOVA result indicates that the variance in perceived DRRM implementation between schools is larger than the variance within schools, suggesting meaningful differences in stakeholders' perceptions. The Tukey HSD post hoc comparisons revealed that Group 10 consistently differed from multiple other schools, including Groups 1, 2, 3, 4, 5, 7, 8, and 9, while Groups 13, 14, 15, and 16 also displayed significant differences with several schools. Negative mean differences in many comparisons suggest that the latter group in each pair had higher perceived implementation scores. This pattern demonstrates that while some schools are performing comparably, certain schools are perceived by stakeholders as implementing DRRM programs more effectively than others.

From these results, it can be inferred that school-specific factors significantly influence stakeholders' perceptions of DRRM program implementation. Differences in perception may be related to leadership quality, staff engagement, availability of resources, or frequency and effectiveness of disaster preparedness activities. Schools such as Group 10, which consistently showed higher scores in multiple comparisons, may serve as benchmarks or models of best practices, whereas schools with lower perceived implementation may require additional training or support to enhance program effectiveness.

The findings are consistent with prior research indicating variability in disaster preparedness across schools. For instance, Cruz (2018) found that stakeholders' perception of DRRM program implementation depended more on active staff engagement and school leadership than on structural resources. Similarly, Delos Santos (2020) highlighted that the frequency and quality of drills influenced perception of program effectiveness. International studies, such as Shaw et al. (2011) and Smith & Petley (2009), also report that organizational practices and stakeholder involvement, rather than resources alone, explain differences in DRRM outcomes. These studies support the observed significant differences across schools in the current study.

The observed differences align with Protection Motivation Theory, which posits that program outcomes are shaped by the fit between organizational processes, leadership, resources, and context. Schools with strong leadership, engaged staff, and structured DRRM activities are likely to achieve higher perceived implementation levels, while schools with less effective organization or lower stakeholder engagement may lag. The significant differences revealed by Welch's ANOVA and confirmed by post hoc comparisons underscore the importance of contextual and organizational factors in shaping stakeholders' perceptions of DRRM program effectiveness.

Action Plan to Enhance Schools' Capabilities in Disaster Risk Reduction and Management

In an era defined by accelerating climate volatility and geological unpredictability, the educational landscape must undergo a fundamental shift. Schools can no longer function solely as centers for academic instruction; they must evolve into fortified sanctuaries of safety. Enhancing School Disaster Risk Reduction and Management (SDRRM) capacities transcends mere regulatory compliance, standing instead as a moral imperative. By prioritizing the physical and psychological well-being of students and staff, we ensure that the pursuit of knowledge is never compromised by the threat of preventable harm.

To move beyond the abstract, this Action Plan is engineered to bridge the critical gap between theoretical emergency protocols and functional, ground-level resilience. Many institutions possess paper plans that fail under the pressure of a real-world crisis. This strategy focuses on institutionalizing safety, transforming static documents into a living culture of preparedness. By embedding risk reduction into the daily rhythm of school life, we ensure that when disaster strikes, the response is instinctive, organized, and effective. The success of this plan hinges on the strength of community coordination and multi-sectoral partnerships. A school does not exist in a vacuum; its safety is inextricably linked to local government units, emergency responders, and the families it serves. By fostering a collaborative ecosystem of information-sharing and resource-pooling, this Action Plan creates a safety net that extends far beyond the school gates. Ultimately, our goal is to build a legacy of resilience that empowers the next generation to face an uncertain future with confidence and composure.

Analyze Phase. In this phase, the current state of Disaster Risk Reduction and Management (DRRM) in the Lagonoy North District is evaluated by identifying the gap between actual performance and the desired "Fully Implemented" standard. The data reveals an overall average weighted Mean of 2.90, which classifies the district's implementation as "Implemented". While this confirms that basic DRRM protocols are operational, the analysis highlights a performance plateau since the score sits in the middle of the AWM = 2.51–3.25 range, failing to reach the "Fully Implemented" threshold.

A thematic breakdown identifies Disaster Preparedness as the district's primary strength, with the highest AWM of 2.99, suggesting that stakeholders have a solid grasp of readiness activities. However, the analysis pinpointed a downward trend as the phases move toward post-disaster actions, with Disaster Response having an AWM of 2.86 and Disaster Rehabilitation and Recovery with AWM of 2.84 receiving the lowest ratings. This discrepancy indicates a critical "implementation gap" where the district is more capable of planning for a disaster than it is of managing the immediate aftermath and long-term recovery. Consequently, this phase identifies a specific need for targeted training or resource restructuring focused on the recovery and rehabilitation pillars to ensure the district can move toward a more comprehensive and resilient DRRM status.

The findings revealed several critical gaps, as while most schools have a designated SDRRM coordinator, the role is often an add-on to a full teaching load, leading to inconsistent monitoring and documentation. There was a significant gap between urban and rural schools. Many schools lack basic emergency hardware, such as functional early warning systems (EWS) or up-to-date fire extinguishers. Disaster drills (earthquake/fire) are conducted regularly, but they often lack the stress-test element. Participants frequently treat them as a routine formality rather than a life-saving rehearsal. A percentage

of older school buildings do not meet current seismic or flood-resistance standards, yet they serve as primary evacuation centers for the local community.

Design Phase. This phase serves as the strategic transition from identifying school vulnerabilities to engineering actionable solutions. In this phase, the primary focus is on the creation of a comprehensive DRRM Action Plan that outlines how a school will move from a state of risk to a state of resilience. Unlike traditional models, the modified approach emphasizes agility and stakeholder collaboration, ensuring that the design is not just a document on a shelf, but a functional roadmap tailored to the specific geographical and social context of the campus.

To begin the design process, the focus is on establishing Clear and Measurable Safety Objectives. Instead of broad goals, the action plan specifies exact outcomes, such as ensuring that 100% of the school population can complete an evacuation to a designated safe zone within a specific timeframe. These objectives serve as the benchmarks for the entire project, guiding the selection of training modules for teachers and the technical requirements for emergency equipment. By anchoring the plan in measurable data, school administrators can objectively prove whether their capacity-building efforts are actually working.

The second core element involves Resource Mapping and Structural Strategy. During this stage of the design, planners determine the hardware and software required for disaster readiness. This includes designing the layout for early warning systems—such as solar-powered sirens or automated SMS alerts—and identifying the specific personnel who will form the School Disaster Management Committee (SDMC). The plan details the logistical flow of resources, ensuring that emergency kits, medical supplies, and search-and-rescue tools are strategically placed and easily accessible based on the hazard maps developed during the previous Analysis phase.

Furthermore, the Design Phase focuses on Instructional and Pedagogical Integration. To enhance long-term capacity, the action plan outlines how DRRM concepts will be woven into the existing school curriculum across various grade levels. This might involve designing specialized workshops for faculty on psychological first aid or creating age-appropriate safety storyboards for younger students. By designing these educational interventions proactively, the school ensures that disaster awareness becomes a core part of the institutional culture rather than a one-time event, fostering a mindset of preparedness as a lifestyle among students and staff.

Finally, incorporates Evaluation Frameworks and Feedback Loops directly into the design. Before moving into full-scale development, planners design the rubrics and assessment tools that will be used to grade the effectiveness of drills and training sessions. This modified aspect allows for rapid prototyping, where a small section of the plan—such as a fire exit strategy—can be tested and refined based on immediate feedback from local fire marshals or community leaders. This ensures that when the full action plan is eventually implemented, it has already been vetted for practical flaws, maximizing the school's ability to protect its most precious assets: its students. The validity of this design is rooted in the Comprehensive School Safety (CSS) Framework. By aligning the objectives with national and international DRRM standards, ensures that the plan is not just a localized effort but a professionalized

approach to safety. Experts in the field of emergency management were consulted to verify that the proposed response protocols are technically sound.

Develop Phase. This phase represents the critical transition from theoretical planning to the tangible creation of a school's Disaster Risk Reduction and Management (DRRM) infrastructure. In this stage, the strategic blueprints from the Design Phase are used to produce actual deliverables, such as localized hazard maps, teacher training manuals, and student safety workbooks. The modified nature of this phase encourages a collaborative production process where school administrators work alongside local emergency responders to ensure that all instructional materials and emergency protocols are technically accurate and culturally sensitive. By the end of this phase, the school should have a physical and digital DRRM Toolkit ready for institutional use.

Beyond the creation of educational content, the Development Phase focuses on the physical assembly and procurement of life-saving resources identified in the action plan. This involves the acquisition of Go-Bags, the installation of early warning hardware like solar-powered sirens, and the strategic placement of first-aid stations across the campus. Detailed Standard Operating Procedures (SOPs) are drafted into a formal School Resilience Manual, ensuring that roles such as the Search and Rescue lead or the Communication officer are clearly defined in writing. This formalization ensures that the school's capacity to respond to a disaster is embedded in its organizational structure rather than relying on the memory of individual staff members.

A hallmark during development is the inclusion of Technical Validation and Rapid Prototyping. Before a full-scale rollout, a small pilot group, typically the School Disaster Management Committee, conducts tabletop exercises to test-drive the newly developed materials and protocols. This allows the team to identify logistical bottlenecks, such as a confusing evacuation route or an impractical communication chain, before they are tested in a high-stakes environment. By integrating feedback from these mini tests, the development team can refine the action plan, ensuring that the final tools are user-friendly, realistic, and fully optimized to enhance the school's overall resilience during an actual emergency.

CONCLUSIONS

1. Resource disparities exist among schools in Lagonoy North District, particularly in DRRM budget allocation, staffing, and availability of emergency materials, despite differences in student population and school size.
2. Stakeholders generally perceive the DRRM program as implemented across all components, with Disaster Preparedness rated highest and Disaster Rehabilitation and Recovery rated lowest, indicating a functional but not fully optimized implementation.
3. No significant association exists between school profile variables and the stakeholders' perceived level of DRRM implementation, suggesting that implementation is not influenced by school size, age, or available resources.
4. A significant difference exists in stakeholders' perceived levels of DRRM implementation across schools, indicating that implementation quality varies depending on the specific school context.

RECOMMENDATIONS

1. Lagonoy North District may implement a needs-based resource allocation model that prioritizes staffing and budgetary support for high-risk gaps identified in the school profiles. Specifically, the district can standardize DRRM staffing levels, which currently remain stagnant at one staff member for both the smallest school and the largest, and immediately appoint personnel for other schools, which report zero staff despite their high enrollment. The district shall redirect a portion of the available budget to the school that currently lacks essential DRR materials.
2. Lagonoy North District may implement a post-disaster recovery framework that prioritizes the thematic areas of Disaster Response and Rehabilitation and Recovery, which currently hold the lowest implementation. This shall include redistributing budgets and DRRM staff specifically to high-population schools that currently have no dedicated safety personnel to ensure the physical and human infrastructure is capable of managing active emergencies. By shifting focus from static preparedness toward active response and recovery, the district can elevate its overall "Implemented" status and ensure that its operational longevity translates into complete institutional resilience.
3. Since physical and operational characteristics like budget, staff size, and years of operation do not statistically dictate the success of a school's disaster program, the district should shift its strategy from resource accumulation to enhancing qualitative factors such as leadership, community engagement, and standardized training. The focus must be on standardizing emergency drills and transparent communication across all institutions. Specifically, the district should address the weakest thematic area by developing community-based recovery toolkits that rely on clear procedures rather than purely financial or infrastructural variables.
4. Lagonoy North District may implement a mentorship program where high-performing schools share best practices with those struggling to meet standards. Rather than a uniform approach, authorities should provide targeted resources and localized training specifically to schools with lower perceived implementation levels to ensure a consistent safety standard for all stakeholders.

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A P P E N D I C E S

APPENDIX A

LETTER TO CONDUCT STUDY

NAGA COLLEGE FOUNDATION, INC.
M.T. Villanueva Ave., Naga City, Philippines

Graduate Studies

January 14, 2026

NORMA B. SAMANTELA, CESO V
Schools Division Superintendent
Division of Camarines Sur
San Jose Pili, Camarines Sur

Dear Madam,

The undersigned is currently working on research entitled, **"Disaster Risk Reduction Management of Schools in Lagonoy North District"**, in partial fulfillment of the requirements for the Master of Arts in Education major in Administration and Supervision at Naga College Foundation, Inc., Naga City.

In this regard, I respectfully request your kind approval to allow me to conduct the said study among the public schools in the **Lagonoy North District**. The study aims to assess and strengthen the disaster risk reduction and management practices of schools, which may serve as a basis for future planning and policy improvement.

Rest assured that the conduct of the study will strictly adhere to ethical research standards. The confidentiality of respondents and schools will be fully observed, and the research activities will not disrupt the regular operations of the schools involved.

Attached herewith is a copy of my research questionnaire for your reference. I am hoping for your favorable consideration of this request.

Thank you very much for your time and support.

Respectfully yours,

JAYBEE B. FRANCIA
Researcher

Noted:

LEHAI BECHAYDA – BELORO, EdD
Adviser

JOSEPHINE FRANCIA R. VILLANUEVA, LLB, PhD, EdD
Dean, School of Graduate Studies

Approved:

NORMA B. SAMANTELA, CESO V
Schools Division Superintendent

APPENDIX B

ENDORSEMENT FROM THE SDO TO CONDUCT STUDY

Republika ng Pilipinas
Kagawaran ng Edukasyon
Rehiyon V
TANGGAPAN NG MGA PAARALANG PANSANGAY NG CAMARINES SUR

1st ENDORSEMENT
January 29, 2026

Respectfully returned to **JAYBEE B. FRANCIA** a researcher from NAGA COLLEGE FOUNDATION, NAGA CITY, , **APPROVING** the request to conduct a study titled: ***DISASTER RISK REDUCTION MANAGEMENT OF SCHOOLS IN LAGONOY NORTH DISTRICT,*** in partial fulfillment of the requirements for the Graduate School Academic Program, on the following conditions:

1. Coordination shall be made with the Public Schools District Supervisors (PSDSs) and Schoolheads;
2. Observe, free, prior, and informed consent; and by securing parental permission from the parents /guardians of learners involved in the study;
3. Observe the provision of DepEd Order No. 9, s. 2005, "Instituting measures to increase engaged time-on-task and ensuring compliance therewith, the no disruption of classes policy;
4. Observe the provision of Republic Act 10173, the Data Privacy Act of 2012 in gathering data and information from this Division;
5. Gathered data must be used for research purposes only: and
6. Provide this office through **DR. HAZEL M. SALCEDO**, Senior Education Program Specialist in Planning and Research with the **softcopy** of the completed research output via email at researchsdocamsur@gmail.com and **research.camsur@o365.deped.gov.ph** for filing and reference purposes.

NORMA B. SAMANTELA, CESO V
Schools Division Superintendent

SDO CAMSUR: Leading Change, Transcending Barriers, Serving All
Address: Freedom Sports Complex, San Jose, Pili, Camarines Sur
Email: deped.camsur@deped.gov.ph
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Trunklines: 8711553/8813483/09171128401/09088220911/09189338220 *For assistance call the local Operator (200, 207 or 101)

APPENDIX C

QUESTIONNAIRE

Stakeholders' level of implementation of the School's DRRM Program.

Direction: This survey aims to assess stakeholders' level of implementation of the School's Disaster Risk Reduction and Management (DRRM) Program. Please read each statement carefully and answer honestly based on your actual knowledge, experiences, and observations. Select the option that best reflects the extent to which each statement is implemented in your school. Kindly answer all questions to ensure the accuracy and completeness of the results based on the following rating scale.

Rating	Interpretation
4	Fully Implemented
3	Implemented
2	Slightly Implemented
1	Not Implemented

INDICATORS				
A. DISASTER PREPAREDNESS	**Rating**			
1. Conducts hazard mapping activities with hazard-prone areas clearly identified and documented, buildings undergo safety inspection, evacuation routes are posted and assembly areas are designated and known to the school community, and safety signages are visible in most areas.	1	2	3	4
2. Defines role and responsibilities in a functional DRRM committee, contingency plans are available and always regularly reviewed, and earthquake and fire drills are conducted regularly and are familiar to students and staff.	1	2	3	4
3. Integrates DRRM concepts are across learning areas, teachers and other staff received basic DRRM orientation, and students are generally aware of basic disaster response procedures and advanced preparedness skills.	1	2	3	4
4. Places early warning an d communication systems and are consistently tested, and emergency kits and supplies are present and sufficient in quantity or completeness,	1	2	3	4

5. Involves parents and community members in DRRM planning and activities.	1	2	3	4
B. DISASTER PREVENTION AND MITIGATION				
1. Identifies students and staff who are most vulnerable during disasters.	1	2	3	4
2. Identifies the major hazards that may affect its community.	1	2	3	4
3. Clears evacuation routes and emergency exits.	1	2	3	4
4. Uses environmental management practices to reduce hazard impacts.	1	2	3	4
5. Allocates resources for disaster prevention and mitigation activities.	1	2	3	4
C. DISASTER RESPONSE				
1. Clears procedure for search, rescue, and evacuation during disasters, teachers and staff are trained in basic life-saving skills (first aid, CPR, basic rescue), and there is a system for accounting for all students and staff during and after a disaster.	1	2	3	4
2. Designates medical area or safe space for treatment, with coordination with local health units or emergency responders, and procedures are in place for referral to hospitals when necessary.	1	2	3	4
3. Functional toilets and handwashing facilities are available after a disaster, cleanliness of facilities is maintained to prevent health risks, and waste disposal is properly managed during emergency situations.	1	2	3	4
4. Maintains reliable backup power, communications, and learning continuity options	1	2	3	4
5. Provides mental health and psychosocial support after incidents.	1	2	3	4
D. DISASTER REHABILITATION AND RECOVERY				
1. Integrates safety standards and hazard-resistant features during post-disaster reconstruction.	1	2	3	4

2. Restores teaching and learning activities promptly after disasters, temporary learning spaces are provided when school facilities are under rehabilitation, and learning materials and equipment lost due to disasters are adequately replaced or upgraded.	1	2	3	4
3. Provides psychosocial support services to students and school personnel affected by disasters.	1	2	3	4
4. Implements assistance programs to support teachers, staff, and learners' recovery needs.	1	2	3	4
5. Initiates rehabilitation and recovery considering long-term risk reduction and sustainability and the stakeholders participate in planning to ensure inclusive and resilient recovery outcomes.	1	2	3	4

APPENDIX D

ACTION PLAN

Action Plan to Enhance School DRRM Capabilities

"Project LIGTAS Lagonoy"

(Leading Integrated Governance and Technical Assistance for Schools)

Goal: To achieve a "Highly Implemented" status across all four DRRM thematic areas by addressing the specific gaps identified in the school profile.

Pillar 1: Safe Learning Facilities

Addresses: Profile 1c (Classrooms), 1f (Lot Area), and Objective 2b (Prevention/Mitigation).

Strategy	Activity	Output
Hazard Identification	Conduct an annual Student-Led School Watching and Hazard Mapping to identify structural risks.	Updated Hazard Map
Structural Integrity	Coordinate with LGU/DPWH for the assessment of buildings older than 20 years (Profile 1e).	Certificate of Safety

Safe Zone Marking	Delineate evacuation routes and "Safe Zones" based on school lot area and student population density.	Signages & Painted Routes

Pillar 2: School Disaster Management

Addresses: Profile 1d (DRRM Staff), 1g (Budget), and Objective 2a (Preparedness).

Strategy	Activity	Output
Institutionalization	Designate and train a School DRRM Team with specific roles (Search & Rescue, First Aid, Communication).	Designation Orders
Policy Integration	Incorporate DRRM protocols into the School Governing Council (SGC) and PTA meetings.	Minutes of Meeting
Resource Allocation	Earmark 5% of MOOE or seek Adopt-a-School Program (ASP) partners for DRRM equipment (Profile 1h).	SIP/AIP Budget Allocation

Pillar 3: DRR in Education & Continuity

Addresses: Objective 2c (Response) and 2d (Recovery).

Strategy	Activity	Output
Curriculum Integration	Contextualize DRRM lessons in Science, Health, and Araling Panlipunan across all sections.	Contextualized Lesson Plans
Capability Building	Conduct Quarterly Multi-Hazard Drills (Earthquake, Flood, Fire) tailored to Lagonoy's geography.	Drill Evaluation Reports
Learning Continuity	Develop a **Public Assistance & Recovery Plan,** including modular/online shifts during calamities.	Learning Continuity Plan (LCP)

Key Recommendations for Lagonoy North District

1. **District-Wide Standardization:** Since Objective 4 explores *differences* between schools, the District Office should provide a standardized "Minimum DRRM Package" (standardized signage, sirens, and first-aid kits) to minimize the gap between high-resource and low-resource schools.

2. **Stakeholder Integration:** Strengthen the partnership with the Local Government Unit (LGU) of Lagonoy for technical assistance in engineering assessments of older school buildings (Objective 1e).

3. **Data-Driven Decisions:** Use the "Significant Associations" found in Objective 3 (e.g., if larger schools have lower implementation scores) to prioritize technical assistance and funding to those specific school categories.

DRRM Monitoring & Evaluation (M&E) Plan

Project Title: *Project LIGTAS (Leading Integrated Governance and Technical Assistance for Schools)*

1. Logic Model for M&E

Level	Indicator	Data Source	Frequency
Input	Availability of Budget (1g) and Materials (1h)	School PPMP & Inventory Log	Quarterly
Output	No. of Staff trained (1d) and Drills conducted	Training Certificates / Drill Reports	Every 3 Months
Outcome	Increased "Perceived Level of Implementation" (Obj 2)	Stakeholder Satisfaction Survey	Semi-Annual
Impact	Zero casualties and minimal property damage	Post-Disaster RADaR Reports	Post-Calamity

2. Quarterly Monitoring Tool (SDRRM Tracker)

Use this checklist to monitor the physical and operational status of DRRM in each school section.

Key Area	Indicator (Success Criteria)	Status (1-5)	Remarks/Gaps
Preparedness	100% of Sections (1b) have a Go-Bag and First Aid Kit.		
Prevention	Fire extinguishers are tagged and not expired.		

Mitigation	Hazard maps are displayed in all Classrooms (1c).		
Response	100% of Students (1a) participated in the Quarterly Drill.		
Recovery	The Learning Continuity Plan (LCP) is updated and signed.		

3. Evaluation of Stakeholder Perception (Objective 4)

To address the "Significant Difference" between schools, use this evaluation matrix during the **District Mid-Year Review**.

Research Variable	Evaluation Question	Data Analysis Method
Staffing (1d)	Does the ratio of DRRM staff to students affect response time?	Correlation Analysis
Budget (1g)	Is there a significant increase in implementation when budget is higher?	Regression Analysis
Stakeholders (2)	Do parents perceive the school as "safer" than teachers do?	T-Test (Comparison of Means)

4. Reporting Schedule (M&E Cycle)

1. **Month 3 (Progress Monitoring):** School DRRM Coordinator submits the *Inventory & Training Status Report* to the District Office.
2. **Month 6 (Mid-Term Evaluation):** Conduct the **Stakeholder Perception Survey** (Objective 2) to see if interventions are being felt on the ground.
3. **Month 12 (Annual Review):** Compare the **School Profile (Objective 1)** against the **Implementation Level (Objective 2)** to adjust the SIP for the following year.

5. Continuous Improvement (CI) Loop

If the M&E data shows a "Low Level of Implementation" in **Disaster Recovery (2d)** despite having a high budget (1g):

- **Root Cause Analysis:** Is it a lack of training or a lack of coordination with the LGU?
- **Correction:** Re-allocate funds from "Materials" to "Technical Capacity Building" for the staff.

Note: For Lagonoy North, pay close attention to schools with large **Lot Areas (1f)**. M&E should verify if the early warning sirens are audible in the farthest corners of the campus.

CURRICULUM VITAE

JAYBEE B. FRANCIA

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Zone 6, Himanag, Lagonoy

Camarines Sur

PERSONAL INFORMATION

Date of Birth:	July 13, 1989
Place of Birth:	Himanag, Lagonoy, Camarines Sur
Age:	36 year-old
Religion:	Roman Catholic
Sex:	Male
Civil Status:	Married
Nationality:	Filipino
Language/Dialect Spoken:	Bicol, Tagalog, English
Parents:	Mr. Celedonio Solo Francia
	Mrs. Wilma Barde Francia

EDUCATIONAL BACKGROUND

Graduate Studies: Naga College Foundation, Inc.
M.T. Villanueva Avenue, Naga City
Master of Arts in Education
major in Educational Management

Tertiary: Partido State University
Goa, Camarines Sur
Bachelor of Science in Entrepreneurship
2005 - 2009

Secondary: Himanag High School
Himanag, Lagonoy, Camarines Sur
2001 - 2005

Primary: Himanag Elementary School
Himanag, Lagonoy, Camarines Sur
1995 – 2001

EMPLOYMENT RECORD

- Locally – Funded Teacher
  Himanag National High School
  Himanag, Lagonoy, Camarines Sur
  2017– 2018

- Regular Permanent Teacher
  Himanag National High School
  Himanag, Lagonoy, Camarines Sur
  2018 – 2023

- Teacher In-Charge
  Bocogan Bay National High School
  Bocogan, Lagonoy, Camarines Sur
  August 29, 2023 – present

Designation:	District BSP Coordinator Lagonoy North District
	District DRRM Coordinator Lagonoy North District
Years in Service:	8 years
Present Position:	Teacher II

TRAINING AND SEMINARS ATTENDED

- Human Resource Merit Promotion and Selection Board Assessors Training (December 18-19, 2025)
- School Leadership Master Class for School Head (May 2, 2025- October 30, 2025)
- Training of Revised K-12 Curriculum Phase II- School Leaders (September 15-18, 2025)
- Seminar on the Procedures and Requirments for School Site Surveying, Registration, and Titling (September 9, 2025)