WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Preparedness, Practices, and Implementation of Disaster Risk Reduction Management: Basis for Disaster Contingency Plan

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A B S T R A C T:

This study explored the preparedness, practices, and implementation of Disaster Risk Reduction and Management (DRRM) in public elementary schools within the 5th Educational District (EDDIS V) of the Schools Division Office of Bulacan. Anchored in the need for improved school safety amid frequent natural and human-induced disasters, the research employed a mixed-methods approach combining quantitative surveys and qualitative interviews among 130 respondents—comprising 65 school heads and 65 DRRM coordinators. Results revealed a generally high level of preparedness, particularly in crisis analysis, technology integration, and capacity building. Schools have established emergency response teams, conduct regular risk assessments, and utilize social media and digital tools for communication. However, gaps were noted in consistency and inclusivity, especially in training for non-teaching staff. The study recommends enhancing DRRM programs, optimizing digital communication systems, and ensuring comprehensive training across all school personnel. These findings inform the formulation of a localized, enhanced disaster contingency plan aimed at strengthening school-wide disaster resilience.

Keywords: School Disaster Risk Reduction and Management Team, Level of Preparedness, Crisis Analysis, Capacity Building, Enhanced Disaster Management Contingency Plan

INTRODUCTION

Typhoons, tornadoes, earthquakes, volcanic eruptions, and other natural calamities can strike a town with little or no notice. A Covid-19 pandemic or other infectious diseases can quickly travel from person to person, spreading serious infections across the nation or the world. Threatened or actual school shootings are relatively rare, but when they do happen, they are horrifying and terrifying. Anthrax scares that followed the tragic events of "September 11" signaled the beginning of a new era of terrorism. Across the nation, communities are having difficulty comprehending and stopping terrorist attacks. These are only a few of the disaster hazards that school disaster risk management plans (SDRRMs) must confront and address with short-, medium-, and long-term strategies put in place to adequately resolve or address them. It is important to implement risk-reduction strategies quickly and manage crises effectively.

The Department of Education had urged local school administrations to put emergency preparedness procedures into action. Disaster consequences on the school, the teachers, and especially the students can be lessened by preparation. Additionally, disaster risk reduction and management involve not only preventing damage to property but also organizing people to preserve lives and keep from interfering with the delivery of education. Teachers, students, parents, and members of their communities are all urged to actively participate in disaster preparedness since it is an excellent strategy to increase their awareness of risk reduction. Russell (2019) claims that school leaders, faculty, staff, parents, and students may collaborate to ensure schoolwide safety and lessen the impact of emergencies and other risky circumstances.

The security of our schools and students depends on our ability to act swiftly and effectively in a crisis. The moment to decide who should do what is not in the thick of a crisis. Everyone participating at that time, from the top down, should be familiar with the procedure and each other.

Schools must be safe, and School Disaster Risk Reduction and Management (SDRRM) works to lessen the vulnerability of schools to disasters and their effects. It lessens the effects of the impending tragedy by preparing instructors and pupils for it. The majority of parents think that schools keep their kids safe during the school day. Unfortunately, any school in our nation—or indeed anywhere in the world—could at any time face a crisis of some type, either directly or indirectly.

In order to take on the issues as well as determine the direction of the readiness, this study was designed specifically to look into the level of preparedness of instructors for disaster risk reduction and management methods among public elementary schools in the 5th Educational District (EDDIS V) in Schools Division Office of Bulacan.

The researcher thought that the output of this study will enable the management and reduction of disaster risk to be achieved. The public elementary schools will subsequently be guided toward having a guided and well-prepared contingency plan by the evaluation using practical and reliable tools.

Literature Review

Disasters can strike at anytime and anyplace, especially when people and habitats are at risk. Sometimes they are brought on by people or by natural disasters. The United Nations devised the Hyogo Framework for Action (HFA) to reduce, if not entirely prevent, losses and injuries to lives and property damages brought on by risks and disasters across nations and communities. One of the 168 signing nations was the Philippines, which is ranked among the ten most dangerous nations in the world due to the numerous natural hazards.

R.A. No. 10121 acknowledged then the need to "adopt a disaster risk reduction and management approach that is holistic, comprehensive, integrated and proactive in lessening the socio-economic and environmental impacts of disasters including climate change, and promote the involvement and participation of all sectors and all stakeholders concerned, at all levels, especially the local community." Disaster preparedness, being a multilevel system (global, regional, national, community, individual), became also multi-relational (physical, social, economic, environmental). Within the social system of the community, there are still various subsystems interdependent with each other.

The rules on mainstreaming disaster risk reduction in subnational development and physical land use planning were mandated by Administrative Order No. 1 for adoption and use by local government entities, particularly provinces, in planning activities. Due to its location and geographical makeup, the Philippines is one of the most disaster-prone nations in the world, with an average of four (4) catastrophes per year, or 373 disaster events overall from 1905 to 2006.

As stated to an article by Monica Vidili (2018), according to studies examining the effects of catastrophes, women and children face larger risks for survival and rehabilitation in the wake of natural disasters. Simple life-saving decisions, like deciding whether to escape a disaster region, can become challenging since women and girls are disproportionately responsible for caring for children, the elderly, and persons with disabilities on both a personal and professional level.

Tabios (2010) firmly believes that the community has a role to play in disaster management in terms of preparedness, adaptation, and mitigation. He asserted that the community had a wide range of options for disaster management. In the lead-up to a disaster and during the immediate post-disaster stages, every community should develop and organize planning and reaction teams. The creation of emergency plans, including escape routes, shelters, and food supplies in case of catastrophe, is a fundamental prerequisite. In particular, the multi-hazard maps are quite helpful for this purpose.

The results of the research project by Kelly (2010), shown that frequent practice of drills and exercises is necessary. In order for kids and teachers to learn what to do and how to act in an emergency, he advised that practice drills be taken seriously. The assembly location should be recognized, as well as the escape route. Everyone must maintain their composure, and staff and students were held accountable. Practicing an evacuation cuts down on time wasted during the actual evacuation. evacuation.

Ogunlade, et al. (2010) agreed that it is necessary to identify and evaluate mitigating technologies and measures that must diverge from "business as usual" in the short term. This is done to increase a nation's and a community's level of resilience to all types of calamities, not their level of tolerance. Because they mistook their sense of tolerance for a sense of security and resilience, people are now frequently depicted in the media as refusing to leave their houses in the face of imminent danger.

Martires (2011) concurred that Filipino values have an impact on communication, particularly when it comes to disaster preparedness. He argued that the drive to assert one's separate identity is weaker than the need to belong to a community. Behavior that demonstrated pakikisama (togetherness), smooth interpersonal relationships (SIR), tayo-tayo (us and we-ness), and bayanihan (unity and collaboration) was the best example of this. For a good response, the transaction was facilitated by a go-between in the communication process. Herein lies the benefit of project management for community-based development in disaster management.

Any study of the effectiveness of disaster preparedness may yet find that communication is the most important aspect. De Leon (2010) stressed that community-based development initiatives are participative in character. As a result, communication not only sustains an organization but also serves as its primary link to its external environment. Magunda (2010) provided an explanation of the communication system as a DRRM method, stating that public awareness campaigns encourage behavioral changes that result in a culture of risk reduction. In order to preserve lives and livelihoods, she claims that the overall goal of the communication strategy is to extensively spread information on disasters, risk reduction, and its expected repercussions.

Finally, the triad of disaster preparedness factors—contingency planning, communication systems, and capacity-building—were impacted by the management concept of leadership. While contingency planning is considered in the R.A. No. 10121 as a distinct management process replete with its own set of concepts and principles, and disaster communication is institutionalized as one of the powers and functions, Section 9 of the PDRRM Act of 2010 of the implementing arm of the NDRRMC, which is, the Office of Civil Defense (OCD), capacity involves collective attributes such as social relationships, leadership and management.

Conceptual Framework

Siringan (2010), a Ph. D. Professor at the Maritime Science Institute, University of the Philippines Diliman, asserts that there are some locations that can be avoided, others where relocation may be required, and still others where mitigation for specific risks may still be feasible. However, according to Shaw (2012), risk reduction strategies are community-specific. Long-coastline nations like the Philippines are regarded as naturally high-risk due to their high levels of exposure and vulnerability.

Figure 1 shows that the independent variable is the preparedness, practices, and implementation of Disaster Risk Reduction Management in elementary schools of EDDIS V. This variable was hypothesized to influence (as implied by the arrowhead) the dependent variable which is the Disaster Contingency Plan.

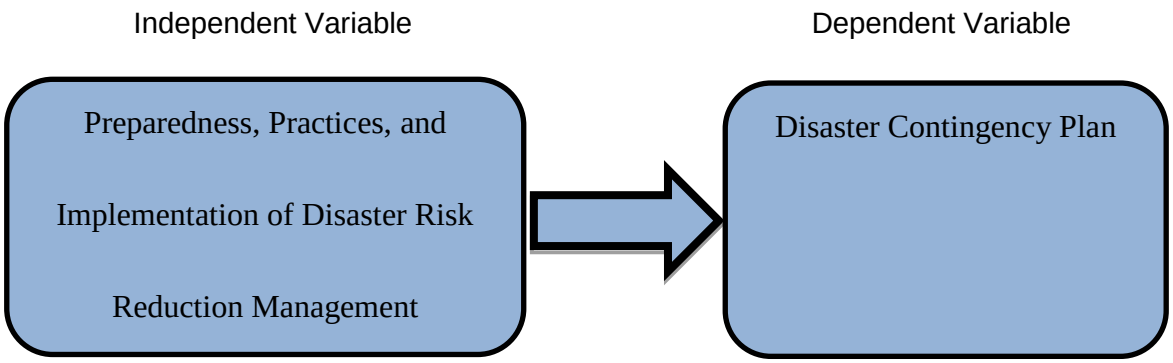

Figure 1. Paradigm of the Study

Statement of the Problem

The main purpose of this study is to attempt to determine the preparedness, practices, and implementation of disaster risk reduction management among Public Elementary Schools in the 5th Educational District (EDDIS V) of Schools Division Office of Bulacan during the School Year 2022-2023.
Specifically, the study aimed to answer the following questions:

- What is the level of preparedness of DepEd SDO Bulacan EDDIS V elementary schools towards disaster risk reduction management?
- crisis analysis;
- use of technology and social media in communication and disaster mitigation; and
- capacity building of teachers and non-teaching staff?
- How may the teachers in DepEd SDO Bulacan EDDIS V elementary schools describe their practices on disaster risk reduction management?
- What problems were encountered by the teachers in implementing disaster risk reduction management?
- What suggestion/s may be given to address the problems encountered on disaster risk reduction management?

Hypothesis

The following hypothesis will be tested in the study:
There is no significant difference between the level of preparedness of the Bulacan EDDIS V elementary schools in the formulation of a contingency plan

METHODOLOGY

The information about the research and sampling procedures that will be utilized by the researcher are provided in this chapter. The research design that will be employed, as well as the data gathering techniques, and data analysis scheme are also discussed in this chapter.

Research Design

In order to determine the preparedness, practices, and implementation of disaster risk reduction management in the EDDIS V elementary schools in the Schools Division of Bulacan, the research will include both a quantitative and a qualitative phase. The project uses an explanatory sequential mixed-methods design. The qualitative results from the second phase of this design are used to complement the quantitative results from the first phase and to explain the subtleties underlying those results.
The descriptive approach also entails data collection in order to test a theory or provide information on a matter, the study's subject's current state (Zulueta, 2011). It is a fact-finding investigation that includes many precise facts the interpretation of results.

Sampling and Respondents

The investigation will be carried out using universal sampling or the entire population. All school principals and SDRRM coordinators will participate in the study as respondents. The first computationally and sample-efficient answer to a wider variety of issues is provided by universal sampling, which can assist in achieving the ideal complexity for any type of signal (Avron 2019).

Table 1. Distribution of Respondents of the Study

School	Teachers	Principals
Balagtas		
1. Balagtas CS	**1**	**1**
2. Balagtas Heights ES	**1**	**1**
3. Borol 1st ES	**1**	**1**
4. Borol 2nd ES	**1**	**1**
5. Dilig ES	**1**	**1**
6. Francisco Balagtas MS	**1**	**1**
7. Longos ES	**1**	**1**
8. M.C. Rivera ES	**1**	**1**
9. Northville VI ES	**1**	**1**
10. San Juan ES	**1**	**1**
11. Santol ES	**1**	**1**
12. Sulok ES	**1**	**1**
Total	**12**	**12**
Bocaue		
1. Bambang ES	**1**	**1**
2. Batia ES	**1**	**1**
3. Biñang ES	**1**	**1**
4. Bocaue Hills ES	**1**	**1**
5. Bolakan ES	**1**	**1**
6. Bunducan ES	**1**	**1**
7. Bunlo ES	**1**	**1**
8. Cong. Erasmo R. Cruz Memorial Central School	**1**	**1**
9. Duhat ES	**1**	**1**
10. Lolomboy ES	**1**	**1**
11. Northville V ES	**1**	**1**
12. St. Martha ES	**1**	**1**
13. Taal ES	**1**	**1**
14. Tambubong ES	**1**	**1**
15. Turo ES	**1**	**1**
Total	**15**	**15**
Guiguinto		
1. Cutcut ES	**1**	**1**
2. Daungan ES	**1**	**1**
3. Doña Escolastica Aldaba Punongbayan ES	**1**	**1**
4. Dra. Ruperta G. Caluag ES	**1**	**1**
5. Guiguinto CS	**1**	**1**
6. Malis ES	**1**	**1**
7. Pritil ES	**1**	**1**
8. Pulonggubat ES	**1**	**1**
9. Sta. Cruz ES	**1**	**1**
10. Sta. Rita ES	**1**	**1**
11. Tabang ES	**1**	**1**
12. Tabe ES	**1**	**1**
13. Tiaong ES	**1**	**1**

14. Tuktukan ES	**1**	**1**
Total	**14**	**14**
Pandi North		
1. Bagong Barrio ES	**1**	**1**
2. Cacarong ES	**1**	**1**
3. Cacarong Bata ES	**1**	**1**
4. Eusebio Roque ES	**1**	**1**
5. Mamerto C. Bernardo Memorial ES	**1**	**1**
6. Mapulang Lupa ES	**1**	**1**
7. Matias B. Salvador Memorial Elementary School	**1**	**1**
8. Pandi Heights ES	**1**	**1**
9. Pandi Residences ES	**1**	**1**
10. Pinagkuartelan ES	**1**	**1**
11. Real De Cacarong	**1**	**1**
12. San Antonio Abad ES	**1**	**1**
13. Siling Matanda ES	**1**	**1**
Total	**13**	**13**
Pandi South		
1. Bagbaguin ES	**1**	**1**
2. Baka-bakahan ES	**1**	**1**
3. Bunsuran ES	**1**	**1**
4. Cupang ES	**1**	**1**
5. Malibo Bata ES	**1**	**1**
6. Malibo Matanda ES	**1**	**1**
7. Manatal ES	**1**	**1**
8. Masagana ES	**1**	**1**
9. Masuso ES	**1**	**1**
10. San Roque ES	**1**	**1**
11. SanAntonio ES	**1**	**1**
Total	**11**	**11**
Grand Total	**65**	**65**

Five school heads from each district will be chosen at random to engage in semi-structured interviews for the qualitative portion. Results from this section will be used to support and for a more thorough explanation of the study's findings.

Locale of the Study

This study will be conducted in the 5th Educational District (EDDIS V) of the Schools Division of Bulacan. It is composed of 65 public elementary schools.

The schools that will be considered as respondents from Balagtas are: Balagtas Central School, Balagtas Heights Elementary School, Borol 1st Elementary School, Borol 2nd Elementary School, Dilig Elementary School, Francisco Balagtas Memorial School, Longos Elementary School, Marciano C. Rivera Elementary School, Northville VI Elementary School, San Juan Elementary School, Santol Elementary School, Sulok Elementary School with a total of 12 school heads and 12 SDRRM Chairmen.

In Bocaue, the schools are: Bambang Elementary School, Batia Elementary School, Biñang Elementary School, Bocaue Hills Elementary School, Bolakan Elementary School, Bunducan Elementary School, Bunlo Elementary School, Cong. Erasmo R. Cruz Memorial Central School, Duhat Elementary School, Lolomboy Elementary School, Northville V Elementary School, St. Martha Elementary School, Taal Elementary School, Tambubong Elementary School, Turo Elementary School with 15 school principals and 15 SDRRM Focal Persons.

Elementary schools from Guiguinto are: Cutcut Elementary School, Daungan Elementary School, Doña Escolastica Aldaba Punongbayan Elementary School, Dra. Ruperta G. Caluag Elementary School, Guiguinto Central School, Malis Elementary School, Pritil Elementary School, Pulonggubat Elementary School, Sta. Cruz Elementary School, Sta. Rita Elementary School, Tabang Elementary School. Tabe Elementary School, Tiaong Elementary School, Tuktukan Elementary School with a total of 14 school heads and 14 SDRRM Coordinators.

The schools that will be considered as respondents in Pandi North are: Bagong Barrio Elementary School, Cacarong Elementary School, Cacarong Bata Elementary School, Eusebio, Elementary School, Mamerto C. Bernardo Elementary School, Mapulang Lupa Elementary School, Matias B. Salvador Memorial Elementary School, Pandi Heights Elementary School, Pandi Residences Elementary School, Pinagkuartelan Elementary School, Real de Cacarong Elementary School, San Antonio Abad Elementary School, and Siling Matanda Elementary School which consist of 13 school principal and 13 SDRRM Focal Persons. In Pandi South, the schools are: Bagbaguin Elementary School, Baka-bakahan Elementary School, Bunsuran Elementary School, Cupang Elementary School, Malibo Bata Elementary School, Malibo Matanda Elementary School, Manatal Elementary School, Masagana Elementary School, Masuso Elementary School, San Roque Elementary School, and San Antonio Elementary School Elementary School with a total of 11 school heads and 11 SDRRM Chairmen.

Instruments

The researcher looked for books, periodicals, newspapers, dissertations, and other relevant materials in order to create an acceptable questionnaire that was used to gather data. These sources gave him a notion of what the tool's outcome would be. The researcher carefully examined and analyzed the data after reading a few related resources. The questionnaire was created with all questions being relevant to the research. The researcher's actual experiences as a DRRM Coordinator in a school, were also used to enhance the questionnaire's content.

School DRRM Coordinators and DepEd DRRM Monitoring Officers in the Division of Bulacan, who have the necessary expertise for the validation of the research survey tool, were given the questionnaire. The researcher took into account the experts' errors, remarks, and recommendations. After the second revision, the researcher sought the advice of an English instructor or grammarian to ensure that the grammar was proper, that each item was clear, and that the content was enhanced. The questionnaire was encoded for the final document and copy after receiving the adviser's approval, practitioners' checking, and grammarian's editing.

This study will utilize mixed method of research both qualitative and quantitative to obtain data for the study. A closed-ended questionnaire will be used to collect quantitative data.
In contrast, semi-structured interviews will be conducted to collect qualitative data. Respondents will be asked questions from an open-ended questionnaire created by the researcher in accordance with the problems outlined in the first step of the data collection procedure during the interview.
Both the poll and the interview will use online data collection.

Data Gathering Procedure

Researchers must get the Bulacan Schools Division Superintendent's permission before collecting data from the intended respondents in the 5 school districts of EDDIS V of SDO Bulacan, comprising of 65 School heads/principals and 65 SDRRM Coordinators. The researcher will work with the school's administrator to set a date and time for data collection after obtaining permission.

To collect quantitative data on the respondents' preparedness, practices, and implementation of disaster risk reduction management in schools, Google Forms will be employed. After that, qualitative interview will be utilized through Google Meet. Before the researchers begin filling out the questionnaires, informed consent will be requested from them in order to uphold the ethical norms in research as it is mandated by Republic Act 10173 or the Data Privacy Act of 2012 titled “An Act Protecting Individual Personal Information in Information and Communications Systems in the Government and the Private Sector, Creating for this Purpose a National Privacy Commission, and for other Purposes.”

Upon receiving the approved permit from the Schools Division of Bulacan and with the consent of the Schools' District Supervisors, the researcher administered the survey questionnaires online to the target respondents,
Also, the researcher ensured that the respondents who agreed to participate remained anonymous. To protect the gathered data, it was stored in the password- protected electronic survey Google forms. No other person could access the information gathered online to protect all teachers who would participate in the study's completion.

In the data collection, the researcher tallied the results and tabulated the gathered data. All of these serve as a basis for the information needed by the researcher for the analysis and interpretation of the data. Also, for the statistical analysis of the data, the researcher asked for the assistance of the schools to get the statistician who handled the statistical treatment of the data gathered.

Data Analysis

The respondents personally received the freshly validated questionnaires. To assist them in responding to the instrument's indicators, instructions were presented.
As soon as the respondents finished answering the questions, the questionnaires were retrieved. After being collected, the data were coded, added together, and tabulated for analysis and interpretation.
To evaluate each primary school's level of preparedness for disaster risk and management, a weighted mean will be generated.
To establish whether there was a meaningful relationship between the independent factors (preparedness, practices, and implementation of disaster risk reduction management) and the dependent variable (contingency planning), correlation analysis will be carried out.
Thematic analysis will be applied to the acquired qualitative data in order to analyze it.

Braun & Clarke (2022) firmly believes that researchers can select a variety of options when doing thematic analysis, including the type of data and overarching theory.

Ethical Considerations

In order to uphold his strict devotion to the no disruption of classes policy as stipulated in DepEd Order No. 9 s. 2005, the researcher will first obtain permission from the respondents before beginning the research and will ensure that it will not interfere with class time.
It is also expected that the participation of respondents is voluntary. Additionally, it's critical to ensure that respondents test scores and private information are not disclosed to the public. To safeguard the rights of participants, secrecy should be a top priority.

Results and Discussion

This chapter presents, analyses, and interprets the data collected in the study. For an organized presentation and consistent discussion, the data are presented following the order or sequence of the research objectives presented: the schools' level of preparedness in terms of crisis analysis, the use of technology and social media, capacity building of teaching and non-teaching staff, schools' practices in DRRM and problems encountered in implementing DRRM.

Table 1. The Schools' Level of Preparedness on Disaster

STATEMENTS	Mean	Interpretation
Crisis Analysis		
Our school has identified potential hazards in the community.	**4.32**	**Strongly Agree**
There is a clear disaster risk reduction plan in our school.	**4.16**	**Agree**
The school conducts regular risk assessments and evaluations.	**4.2**	**Agree**
Our school has an established emergency response team.	**4.24**	**Strongly Agree**
Average	**4.23**	**Agree**

As can be observed from the computed data in table 1, the schools' level of preparedness on disaster, "Our school has identified potential hazards in the community" This statement received the highest mean score of 4.32, interpreted as "Strongly Agree." This suggests that schools are highly aware of the potential risks in their surroundings, which is a crucial first step in disaster preparedness. "Our school has an established emergency response team." This statement also shows a high level of agreement, with a mean of 4.24, interpreted as "Strongly Agree." This indicates that schools have dedicated personnel and structures in place to respond to emergencies, enhancing their capacity for immediate action. "The school conducts regular risk assessments and evaluations." With a mean of 4.20, interpreted as "Agree," schools are actively engaged in assessing and evaluating potential risks. This proactive approach helps in identifying vulnerabilities and refining preparedness strategies over time. "There is a clear disaster risk reduction plan in our school." This statement has a mean of 4.16, interpreted as "Agree." While still indicating agreement, it is slightly lower than the other statements. This suggests that while plans exist, there might be room for further clarity or communication regarding these plans within the school community

Table 2. the Use of Technology and Social Media

STATEMENTS	Mean	Interpretation
The Use of Technology and Social Media		
We use technology for early warning and communication during disasters.	**4**	**Agree**
Our school utilizes social media to disseminate disaster-related information.	**4.08**	**Agree**
Technology is integrated into our disaster response strategies.	**4**	**Agree**
There is training on the use of digital tools for DRRM.	**4.28**	**Agree**
Average	**4.09**	**Agree**

As can be gleaned from Table 2, the Use of Technology and Social Media, "There is training on the use of digital tools for DRRM." This statement garnered the highest mean score of 4.28, interpreted as "Agree". This is a positive indicator that schools are investing in equipping their personnel with

the necessary skills to leverage digital tools for disaster risk reduction and management (DRRM). Effective training is crucial for the optimal use of technology during emergencies. “Our school utilizes social media to disseminate disaster-related information." With a mean score of 4.08, interpreted as "Agree," schools are actively using social media platforms to share important disaster-related information. This highlights the recognition of social media's wide reach and immediacy in communicating with the school community and potentially the wider public during crises. "We use technology for early warning and communication during disasters." This statement, with a mean of 4.00 and an interpretation of "Agree," signifies that schools are employing technology for crucial functions like early warning systems and communication channels during disaster events. This is vital for timely alerts and coordinated responses. "Technology is integrated into our disaster response strategies." Also, with a mean of 4.00 and interpreted as "Agree," this indicates that technology is not just an add-on but an integral part of how schools plan and execute their disaster response. This suggests a systematic approach to leveraging technological advancements for more effective disaster management.

Table 3. Capacity Building of Teaching and Non-Teaching Staff

STATEMENTS	Mean	Interpretation
Capacity Building of Teaching and Non-Teaching Staff		
Regular DRRM training is conducted for teachers.	**4.36**	**Strongly Agree**
Non-teaching staff are included in disaster preparedness training.	**4.16**	**Agree**
We conduct simulation drills at least twice a year.	**4.28**	**Strongly Agree**
There is a budget allocated for DRRM training and capacity building.	**4.24**	**Strongly Agree**
Average	**4.26**	**Strongly Agree**

As can be observed from table 3, with regards to capacity building of teaching and non-teaching Staff, The data in Table 3 strongly suggests that schools place a high emphasis on capacity building for both teaching and non-teaching staff in disaster risk reduction and management (DRRM). The overall average mean of 4.26, interpreted as "Strongly Agree," indicates a robust commitment to preparing school personnel for potential disasters. "Regular DRRM training is conducted for teachers." This statement received the highest mean score of 4.36, interpreted as "Strongly Agree." This highlights a strong commitment to continuously educating teachers on DRRM protocols and best practices, which is crucial given their direct responsibility for student safety during emergencies. "We conduct simulation drills at least twice a year." With a mean of 4.28, interpreted as "Strongly Agree," this indicates that schools are actively engaging in practical exercises to test and refine their disaster response plans. Regular drills are essential for familiarizing staff and students with procedures, identifying weaknesses, and building confidence in emergency situations. "There is a budget allocated for DRRM training and capacity building." This statement, with a mean of 4.24 and an interpretation of "Strongly Agree," signifies that financial resources are specifically earmarked for DRRM initiatives. The presence of a dedicated budget underscores the institutional priority given to training and capacity building, ensuring sustained efforts in this area. "Non-teaching staff are included in disaster preparedness training." With a mean of 4.16, interpreted as "Agree," this shows that schools recognize the importance of involving all personnel in disaster preparedness. While still a strong agreement, it is slightly lower than the other "Strongly Agree" statements, suggesting potential for even greater inclusion or frequency of training for non-teaching staff.

Respondents Practices on Disaster Risk Reduction and Management and the Problems Encountered in DRRM.

Describe your current role in disaster risk reduction management.

“My role in disaster risk reduction management is both proactive and responsive. I help identify potential hazards, contribute to planning and improving our school’s DRRM strategies, and serve as an active member of the emergency response team. I participate in emergency drills and ensure the safety and coordination of both staff and students during emergencies.” The results reflect a strong and well-defined role in disaster risk reduction management (DRRM), emphasizing both proactive and responsive responsibilities. The proactive aspect is demonstrated through active participation in identifying potential hazards and contributing to the development and enhancement of the school’s DRRM strategies. This indicates a forward-looking approach aimed at minimizing risks before disasters occur.

What activities or practices do you participate in regarding DRRM?

“I engage in regular risk assessments and planning meetings. I actively participate in simulation drills and training sessions. I also help integrate and use technology and social media for early warning, communication, and information dissemination during disaster situations. These tools help improve coordination and awareness in our school community.” The results indicate a highly engaged and proactive involvement in disaster risk reduction management (DRRM) activities. Regular participation in risk assessments and planning meetings suggests a strong commitment to continually evaluating and improving the school’s preparedness measures. This ongoing process is essential for identifying new or evolving hazards and ensuring that the DRRM strategies remain effective and relevant.

How often do you engage in DRRM-related training or drills?

"I regularly participate in DRRM training and drills. Our school holds simulation drills at least twice a year, and I take part in regular training sessions for both teaching and non-teaching staff. These efforts help ensure the entire school community is prepared for various disaster scenarios." The result demonstrates a strong commitment to building and maintaining disaster preparedness through consistent participation in training and drills. Regular involvement in simulation exercises, held at least twice a year, reflects the school's proactive approach to ensuring that emergency procedures are well understood and practiced by all members of the community

Describe any innovative practices your school implements in DRRM.

" One innovative practice is the integration of digital tools in our disaster response. We use technology for real-time alerts, rollcalls, and communication during emergencies. We also provide focused training on the effective use of these tools to ensure they are used efficiently. This strengthens our overall preparedness and speeds up emergency response." This connotes that, the integration of digital tools into disaster response reflects a forward-thinking and innovative approach to school-based disaster risk reduction management. This practice demonstrates how technology can significantly enhance real-time communication, coordination, and decision-making during emergencies. The use of digital platforms for alerts, roll calls, and emergency messaging helps streamline response efforts, reduce confusion, and ensure that accurate information is quickly disseminated to the right individuals.

PROPOSED DISASTER CONTINGENCY PLAN

Proposed Disaster Contingency Plan

Impact on School-Based Services

Risk	Likelihood[a]	Severity[b] per incidence	Potential Impact in Possible Total Class Days Lost	Service Affected	Interventions	Resources Required
Tropical Storm	Medium - High	Moderate	2- 5 days without school-based services	Transactions that will require physical appearance such as the release of school records and other administrative tasks.	Online transactions with the clients.	School FB page and Website.
Heavy Rainfall and Flood	Medium – High	Significant	2-5 days without school-based services	Transactions that will require physical appearance such as the release of school records and other administrative tasks.	Online transactions with the clients.	School FB page and Website.
Extreme Heat Conditions	Medium-High	Significant	2-4 days without school-based services	Transactions that will require physical appearance such as the release of school records and other administrative tasks.	Online transactions with the clients.	School FB page and Website.
Earthquakes	Medium	Negligible	20 minutes to 1 hour school-based services	Transactions that will require physical appearance such as the release of school records and other administrative tasks.	Resume transactions once the situation is under control.	School FB page and Website.
		Severe	1 week to 2 weeks without school-based Services		Find a safe place to provide an important and immediate transaction.	School FB page and Website.

Conclusions:

- Schools have laid a strong basis for being prepared for emergencies. Regular risk assessments are an obvious strength, as are excellent performance in danger detection and emergency response team creation. However, it is advised that disaster risk reduction programs be improved and implemented more successfully in order to further increase readiness.
- Schools are increasingly using social media and technology to improve their readiness and response to disasters. A good trend toward contemporary, effective communication and coordination during emergencies is reflected in training programs, the use of digital platforms for information transmission, and the use of technology into emergency plans.
- Regular teacher training, frequent simulation drills, and budgeted funds for DRRM programs demonstrate a strong commitment to capacity building in schools. Even if these initiatives involve non-teaching personnel, they can be strengthened by guaranteeing their continuous and thorough involvement in training initiatives, which will increase the readiness of the whole school community.

Recommendations

- Expand and Improve Programs for Disaster Risk Reduction

There is a strong need to enhance catastrophic risk reduction programs, even while schools are excellent at basic emergency preparedness tasks including risk assessments and emergency team formation.

- Optimize Digital Integration and Protocols for Communication
  Although schools are already using technology to respond to emergencies, there is a chance to optimize digital integration. This entails creating stronger, more uniform communication methods for internal and external stakeholders during emergencies in addition to employing social media and digital platforms for information distribution. Investigating specialized emergency apps for the entire school, connecting communication systems with nearby emergency services, and holding exercises that especially test digital communication channels and the prompt delivery of vital information are a few examples of how to do this.
- Make sure all staff receive thorough and ongoing DRRM training.
  It is important to make sure that all school staff are fully and consistently involved in Disaster Risk Reduction and Management (DRRM) programs, even though teacher training and exercises are praiseworthy. This entails aggressively involving non-teaching employees in all training programs and simulation exercises, such as administrative workers, maintenance teams, security officers, and canteen staff. In order to promote a more unified and efficient emergency response from the whole school community, their precise roles and duties during emergencies should be well-defined and practiced.

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