

READINESS AND CAPABILITIES ON THE IMPLEMENTATION OF DISASTER RISK REDUCTION AND MANAGEMENT FOR SCHOOL RESILIENCE AND POLICY COMPLIANCE

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Abstract

This study aimed to determine the relationship between disaster risk reduction and management to school resilience and policy compliance. The study was descriptive-correlational design which involved the participation of the junior high-school teacher-respondents from public high school in Rizal and Nagcarlan District. The data gathered indicated that the perception of the respondents on DRRM readiness and capabilities to school resilience and policy compliance are evident. The impact of Disaster Risk Reduction and Management (DRRM) readiness and capabilities on school resilience and policy compliance is significant and multidimensional. Schools with strong DRRM capabilities can better anticipate, prepare for, respond to, and recover from disasters. DRRM readiness often includes retrofitting school buildings, securing hazardous materials, and ensuring evacuation routes are clear. These actions reduce casualties and property damage, increasing the physical resilience of the school.

*Likewise, compliance ensures eligibility for funding, support, and accreditation. Schools are not only safer and more resilient but are also better positioned to meet policy requirements. The findings revealed that the variables under DRRM readiness and capabilities were significantly related to school resilience and policy compliance as affirmed by the computed *r*-values when these variables were paired for correlation.*

Keywords: Disaster Risk Reduction and Management, readiness, capabilities, school resilience, policy compliance

1. Introduction

Disaster is defined as a critical issue that needs to be tackled at the national and local level. It disables the general function and performance of the people in a community. It includes all aspects of personal, material, economic, and environmental losses and damages, which bring about tremendous difficulties and challenges for the community in responding to their own capability and ability to bounce back. Our country is highly vulnerable to a number of catastrophes, such as typhoons, floods, earthquakes, tsunamis, fires, and landslides (Comighud 2018).

The Philippines is vulnerable to natural and man-made disasters because of its geology and geography or positioning within the Pacific Ring of Fire and the typhoon belt. Cyclones, volcanic eruptions, earthquakes, landslides, and floods are just some of the disasters and hazards that recur in the country. Additionally, The Philippines has for the third consecutive year recorded the highest world risk index (WRI) in the 2024 edition of the World Risk Report covering 193 nations including all the United Nations member-states and 99% of global population.

In the Institute for International Law of Peace and Armed Conflict of the Ruhr-University Bochum in Denmark's report, the countries were rated according to their exposure, vulnerability, susceptibility, absence of coping capacities, and absence of adaptive capacities towards crises such as extreme natural disasters, conflicts, pandemics, and wars. (GMA Integrated News Published September 11, 2024).

Philippine government has come up with plans to mitigate the impact of both natural and man-made disasters. The primary purpose of designed laws and policies are to enhance the resilience of vulnerable communities and the nation against natural disasters and minimize damage and loss of properties

The aim of preparatory activities is to know how to react and deal in a given situation (Sutton & Tierney, 2006), as highlighted in Fernandez's study. Also, Filipinos are already used to such natural disasters and have already prepared for other disasters to hit every year. The frequent occurrence of several calamities to our country made our Filipino nation resilient and learned how to endure what they had to experience. The same event could possibly occur to any of us anytime because we are not immune to the laws of nature (RA 10121).

Although the DRRM act that gave legal support to its disaster risk reduction guidelines, Department of Education (DepEd) released DepEd No. 37, s. 2017 as the reference point of the Basic Education Framework with an expanded Disaster Risk Reduction Management. Under this framework, DepEd offices and schools shall have institutionalized DRRM frameworks, systems, protocols and practices. Also, since the effects of disasters always trickle down to schools through powerful typhoons and heavy flooding that devastates school properties. Therefore, Philippines' disposition to disaster necessitate a scrutiny of its existing disaster-related policies (Catanus, 2018; Mamhot, 2019).

In addition, in accordance with DepEd Order No. 55s. 2007: The school should give emphasis and undertake disaster risk reduction within the entire school community. The Department of Education assisted through a Disaster Risk Reduction Resource Manual for principals, supervisors, school administrators, and teachers to assist in the execution of school projects and programs to enhance the school's disaster risk reduction practices. A crisis can affect anybody, but students are particularly vulnerable since they spend most of their time at school (Kousky 2016).

Schools are also very important in the efforts of relief during disasters, yet we do not have the requisite training for most of our teachers, which affects their use of the abilities they possess in disaster risk reduction and management. Disaster knowledge is lacking. To avoid or reduce the effects of devastation, we need to be proactive. There has to be planning as well as preparedness. It is not enough for us to respond once tragedy hits. Preparedness and mitigation need to be practiced prior to a crisis (Torani et al., 2019). There are things that must be undertaken ahead of time now. Benadusi (2014) said that education is the primary method for imparting the value and importance of awareness of disasters. He stated that information, skills, and essential behaviors would be acquired through education. One of the most powerful and efficient methods of fighting against disasters, as stated by Dikmenli's (2018), is to foresee threats so that we can plan and take proper action.

The underlying assumption of this chapter is that assertions regarding other individuals' knowledge need to be constrained by systematic data. Individuals may be harmed by errors in their perceptions of risk. Individuals may also be harmed by errors in what different instructors perceive about such perceptions. And those teachers may be coordinators, chief advisers, subject teachers, --all of whom have some control over what danger is set up, what is said about them, and what part teachers play in deciding their outcome. If their grasp is overestimated, then individuals are forced into situations they are not well equipped to deal with. If their knowledge is underemphasized, then individuals can be disenfranchised from decisions they might and ought to have made. The cost of such risk misperceptions of risk perceptions might be paid eventually, as well as in single decisions. The consequences of disaster risk choices partially decide individuals' safety and security.

It is not possible to create a secure learning environment alone. It involves concerted efforts on the part of administrators, as well as staff, students, and other members of the community (Stronge, et al, 2008). Gastic (2010) suggested that when school stakeholders collaborate, they "yield better results, both in terms of reductions in violence and in the sense of belonging and community that such collaboration may

foster" (p. 270). School safety studies indicate that effective leadership based on these working relationships with all stakeholders is the foundation upon which all school safety efforts are constructed (Astor, et al, 2004; Gallagher, et al, 2005; Bennett-Johnson, 2004).

Even though various other programs have been established, this research plans to measure the level of readiness and competence on the application of DRRM towards school resilience and compliance with policy.

1.1 Statement of the Problem

This study access the Readiness and Capabilities on Disaster Risk Reduction and Management for School Resilience and Policy Compliance among Junior High teachers in the District of Rizal and Nagcarlan.

The study answer the following questions:

1. How do the respondents perceive the level of readiness among junior high school teacher-respondents in terms of:
 - 1.1 Prevention and mitigation;
 - 1.2 Preparedness;
 - 1.3 Disaster response; and
 - 1.4 Disaster recovery and rehabilitation?
2. What is the extent of DRRM capabilities among junior high school teacher-respondents in terms of:
 - 2.1 Objective of the program;
 - 2.2 School Emergency Management Plan;
 - 2.3 Organization and Management;
 - 2.4 Communication Network;
 - 2.5 Emergency Management Protocols;
 - 2.6 School Emergency Action;
 - 2.7 Manpower Development and Training;
 - 2.8 Development and Training Need;
 - 2.9 Equipment and Facilities; and
 - 2.10 Financial Resource and Capability?
3. What is the level of school resilience in terms of:
 - 3.1 Multi- hazard Assessment ;
 - 3.2 Safe Schools Building ;
 - 3.3 School Disaster Management; and
 - 3.4 Risk Reduction and Resilience Education?
4. What is the level of compliance of school in terms of:
 - 4.1 Enabling Environment;
 - 4.2 Safe Learning Facilities;
 - 4.3 Risk Reduction Management; and
 - 4.4 Risk Reduction in Education?
5. Is there a relationship between readiness and capabilities of DRRM on school resilience and policy compliance?

1. Methodology

This chapter provides an appropriate research design, population and sampling technique, data gathering procedure, respondents of the study, research instrument, and the statistical treatment of data as a solution to the main problem to be investigated.

This study used the descriptive-correlational design. Descriptive research is a study that focuses on describing people who take part in the study. A descriptive-correlational design is a method to be utilized by the researcher. The researcher is primarily interested in describing the relationship among variables without seeking to establish a causal connection.

The purpose of this design is to find out the influence of disaster readiness and capabilities on Risk Reduction and Management of disaster and its implication to the level of implementation among teachers

of Cristobal S. Conducto Memorial Integrated National High School, Calumpang National High School, Plaridel Integrated National High School, Talangan Integrated National High School, Upland Integrated National High School and Low Land Integrated National High School, Schools of Rizal and Nagcarlan District.

The study utilized an adopted survey questionnaires from the National Disaster Risk Reduction Management (NDRRM) Manual and Toolkit for Building Disaster -Resilient School Communities in Southeast Asia, this study aims to assess the extent of readiness and capabilities on the implementation of DRRM for school resilience and policy compliance based on the NDRRM policies, plans, and procedures and the level of capabilities of the respondents to respond to hazards in times of the disaster anchored on the Hyogo Framework of Action. The researcher seek approval from the Office of the Schools Division Superintendent to administer the survey instruments. Link via google form as research instruments were given to the different school and teachers.

The respondents of the study were the 120 junior high school teachers of Cristobal S. Conducto Memorial Integrated National High School, Calumpang National High School, Plaridel Integrated National High School, Talangan Integrated National High School, Upland Integrated National High School and Low Land Integrated National High School of Rizal and Nagcarlan District S.Y. 2024-2025.

Random sampling technique was utilized in the study wherein teachers in the junior high school level of Cristobal S. Conducto Memorial Integrated National High School, Calumpang National High School, Plaridel Integrated National High School, Talangan Integrated National High School, Upland Integrated National High School and Low Land Integrated National High School, Schools of Rizal and Nagcarlan District were given a survey questionnaire for this study aims to assess the extent of readiness and capabilities on the implementation of DRRM for school resilience and policy compliance. The researcher secured permission from the district supervisor and the principal of the school where the respondents of the study conducted.

The study utilized the adopted survey questionnaires from the National Disaster Risk Reduction Management (NDRRM) Manual and Toolkit for Building Disaster -Resilient School Communities in Southeast Asia to determine the status of the implementation of Public Schools' Disaster Risk Reduction Management Program based on the NDRRM policies, plans, and procedures and the level of capabilities of the respondents to respond to hazards in times of the disaster anchored on the Hyogo Framework of Action.

The survey questionnaire was also evaluated by experts as external validators before the distribution to the respondents. The researcher secured approval from the Office of the Schools Division Superintendent and District Supervisor and the Principal of the school where the respondents of the study conducted. The survey questionnaire was collected, tabulated, and subjected to analysis and interpretation after answering.

The adopted survey questionnaire in a form of a checklist was used as the main instrument in gathering the data of the study. The instrument is composed of four parts. The first part of the questionnaire was the profiling of the respondent's name, age, gender, civil status, position, years in service and educational attainment. The second part are sets of indicators showing disaster readiness using the five Likert Scale as 5-Very Well Implemented (VWI), 4-Well Implemented (WI), 3-Implemented (I), 2-Less Implemented (LI), 1-Not Implemented (NI). Part three composed of indicators on the Capabilities of School Disaster Risk Reduction and Management. The indicators of the variables were measured using the five Likert Scale Rating as Highly Capable- 5, Capable- 4, Moderately Capable - 3, Less Capable - 2, Incapable -1. Part four composed of indicators on the School Resilience. The indicators of the variables were measured using the five Likert Scale Rating as Highly Resilient - 5, Moderately Resilient- 4, Slightly Resilient - 3, Low Resilient- 2, Not Resilient -1. Part five composed of indicators on the Policy Compliance of the school. The indicators of the variables were measured using the five Likert Scale Rating as Very Much Compliant -5, Much Compliant-4, Moderately Compliant-3, Slightly Compliant-2, Not at all Compliant -1 scoring and analysis of the perception of the respondents of the study.

An internal consistency test was performed on the instrument to evaluate the dependability of the information acquired during its preliminary testing. The degree of uniformity of the Table 7 displays the validated research instrument. Regarding Readiness and Capabilities of DRRM, school resilience, and policy compliance, the majority of the sub-variables were all greater than 0.9, suggesting that the statements that were used were excellent. On the other hand, some sub-variables like communication network, school emergency action and multi-hazard assessment were rated as good indicating that although interpreted as indicated were still acceptable.

This study utilized the set of statistical tools for the seamless analysis and interpretation of data.

Frequency, percentage, mean and standard deviation was used to show the respondent's Readiness

and Capabilities on disaster.

Pearson-product Moment Correlation was used to find out if there is a significant relationship between the extent of disaster readiness and capabilities and the level of teachers' implementation on School resilience and policy compliance.

2. Results and Discussion

Table 8

Level of Readiness in Terms of Prevention and Mitigation

Indicators	Mean	Std. Deviation	Verbal Interpretation
1.DRRM and CCA were mainstreamed and integrated in national, sectoral, regional and local development policies, plans and budget.	4.47	0.62	Well implemented
2.DRRM and CCA represented sensitive environmental management.	4.44	0.61	Well implemented
3.Increased disaster resiliency of infrastructure systems.	4.38	0.66	Well implemented
4. Community based and scientific DRR-CCA assessment, mapping, analysis and monitoring.	4.45	0.62	Well implemented
5.Communities have access to effective and applicable disaster risk financing and insurance.	4.38	0.66	Well implemented
6.End-to-end monitoring, forecasting and early warning systems are established and/or improved.	4.43	0.62	Well implemented
Over-all	4.42	0.63	Well implemented

Legend:4.50 – 5.00 very well implemented, 3.50 – 4.49 well implemented, 2.50 – 3.49, implemented ,1.50 -2.49 less implemented,1.00 – 1.49 not implemented

Based on the data presented in the table, level of readiness in terms of prevention and mitigation was perceived by respondents very positively. The indicator with high mean score of 4.47 with a standard deviation of 0.62 indicates that DRRM program were mainstreamed and integrated in national, regional and local development policies ,plans and budget are well implemented , demonstrating strong readiness when it comes to prevention and mitigation.

While the lowest indicators statements 3 and 5 which are increased disaster resiliency of infrastructure systems and communities access to effective and applicable disaster risk financing and insurance with 4.38 mean score both have well implemented verbal interpretation. The data implies that DRRM policies, plans and budget were integrated on local and national governing bodies but need to focused on increasing resiliency in infrastructure system since calamities and disasters are unpredictable.

Alongside, communities also have a scare opportunity to have an effective and applicable disaster risk financing and insurance support since government budget was very limited on this matter.

Incorporating DRRM in the school environment includes integrating practices, policies, and learning experiences that develop awareness, preparedness, and resilience among learners, workers, and the school community. DRRM issues are integrated into science, social studies, and health courses. Learners participate in activities such as climate action projects, hazard mapping, or school risk assessment. Schools create and update their own School Disaster Risk Reduction and Management Plans (SDRRMP) at regular intervals, in accord with national and local policies. The plans contain hazard identification and risk assessment, evacuation routes and drills, emergency communication protocol. Schools organize fire, earthquake, and other disaster drills at least biannually. Teachers, students, and staff receive training in basic first aid, early warning systems, and emergency response. The majority of schools establish committees that govern DRRM activities. These committees tend to undertake awareness campaigns, conduct mock response situations, or have emergency kits in place. Having school buildings that are

climate-resilient and disaster-ready (e.g., earthquake-proof, flood-proofing, proper drainage). Encouraging green practices, including tree planting, waste management, and water conservation. Taking part in coordination with local government units (LGUs), NGOs, and DRRM offices in capacity-building and resource support. Involving parents and the wider community in school-based DRRM and CCA programs.

Moreover, enhancing disaster resiliency of infrastructure facilities within the school environment is very important but usually encounters a number of challenges. These issues can be classified into technical, financial, institutional, and societal concerns. The majority of schools, particularly those in rural areas, possess aging structures that were not constructed with contemporary safety standards. Non-conformity with current building codes (e.g., for earthquakes, typhoons, or floods) is prevalent. Budget limitations hinder retrofitting of existing buildings, construction of disaster-resistant classrooms, installation of early warning systems or adequate drainage and emergency funds are delayed or short. School administrators or personnel could lack expertise in structural safety, climate adaptation, or hazard mapping. Little exposure exists to engineers or specialists for vulnerability studies or design consultation. Lengthy procurement mechanisms or red tape hinder post-disaster repair, construction of new resilient infrastructure. Other reasons include a lack of coordination with LGUs, DepEd engineering offices, and local DRRM units results in duplications of function, gaps in support during reconstruction or maintenance. Resilient infrastructure requires periodic maintenance, but maintenance is overlooked, drainage, roofing, or electrical systems may be overlooked until damage is done. A few schools are situated within flood hazard, landslide hazard, or coastal areas, where mitigation is more challenging and expensive.

Table 9
Level of Readiness in Terms of Preparedness

Indicators	Mean	Std. Deviation	Verbal Interpretation
1.Increased level of awareness and enhanced capacity of the community to the threats and impact of all hazards.	4.54	0.58	Very well implemented
2.Communities are equipped with the necessary skills and capability to cope with the impact of disasters.	4.49	0.65	Well implemented
3. Increased disaster resiliency of infrastructure systems.	4.39	0.69	Well implemented
4. Developed and implemented comprehensive national and local preparedness policies, plans and systems.	4.51	0.64	Very well implemented
5. Strengthened partnership and coordination among all key players and stakeholders.	4.57	0.59	Very well implemented
Over-all	4.50	0.63	Very well implemented

Legend: 4.50 – 5.00 very well implemented, 3.50 – 4.49 well implemented, 2.50 – 3.49, implemented, 1.50 – 2.49 less implemented, 1.00 – 1.49 not implemented

Table 9, showed that the respondents perceived readiness in terms of preparedness was very well implemented with an overall mean of 4.50 with reference to the given indicators item number 3 got the lowest mean, which is increased disaster resiliency of infrastructure systems with a mean of 4.39, interpreted as well implemented.

Communities including schools have an increased level of awareness and enhanced capacity to the threats and impact of all hazards, they also strengthened partnership and coordination among all key players and stakeholders but results showed that increased in resiliency in infrastructure system should be taken into account since they are worried that government focused less on this indicator.

DRRM preparedness involves a combination of proactive planning, community education, resource allocation, and institutional readiness. It's not just about having the tools to respond, but also ensuring the community is informed, resilient, and can bounce back more quickly after a disaster.

Further, Tkachuck et.al. (2018) assumed on their earlier research that it is challenging to create comprehensive safety plans and good communication among the various stakeholders in a university

.Implementation of a disaster preparedness course needs a coordinated effort by all of the stakeholders, and the executive leadership of the university needs to team up with the local emergency management agencies in order to enhance disaster preparedness among the students as well as the local communities. The primary line of action of the government agencies is normally to hold meetings with different stakeholder groups and guide them through rehabilitation. They are mostly concerned with the community at large, and the university students are not considered to a significant extent.

In the educational environment, enhanced partnership and coordination among all concerned players and stakeholders means collective efforts to improve disaster preparedness, safety, and climate resilience. This is usually instituted and practiced by way of key stakeholders, school officials (Principal, DRRM focal persons), teachers and school staff, students and student organizations, Parents and PTAs (Parent-Teacher Associations), barangay/local government units (LGUs), Local DRRM councils and emergency responders, NGOs, CSOs, and faith-based organizations, DepEd (Department of Education) offices, private sector partners or donors. It is put into practice through establishment of a school DRRM committee which consists of representatives from the teachers, students, parents, and LGUs. Supervises planning, response exercises, and coordination with outside agencies. Frequent stakeholder meetings with quarterly or bi-annual meetings to discuss plans, give updates, and enhance coordination. Synergy activities and trainings through holding joint simulations, clean-up campaigns, first aid training, or tree planting with barangay or NGOs.

In support thereof Chan & Ho, (2018) added that disaster preparedness is the government, organizations, community groups, and individuals' knowledge, skills, and actions to be able to forecast, respond to, and recover from, the effects of likely, impending, or already threatening hazardous events or situations.

Table 10
Level of Readiness in Terms of Disaster Response

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	Well-established disaster response and relief operations.	4.43	0.67	Well implemented
2.	Adequate and prompt assessment of needs and damages.	4.43	0.64	Well implemented
3.	Integrated and coordinated Search, Rescue and Retrieval (SRR) capacity.	4.44	0.68	Well implemented
4.	Evacuated safely and on time affected communities.	4.41	0.68	Well implemented
5.	Temporary shelter and/or structural needs are adequately addressed.	4.35	0.69	Well implemented
6.	Basic social services provided to affected population (whether inside or outside ECs).	4.39	0.66	Well implemented
7.	Psychosocial needs of affected population addressed.	4.34	0.67	Well implemented
8.	Coordinated and integrated system for early recovery.	4.40	0.65	Well implemented
Over-all		4.40	0.67	Well implemented

Legend: 4.50 – 5.00 very well implemented, 3.50 – 4.49 well implemented, 2.50 – 3.49, implemented, 1.50 – 2.49 less implemented, 1.00 – 1.49 not implemented

The data in table 10 revealed that the perception of teacher respondents in terms of disaster response is well implemented with an overall mean of 4.40 and a standard deviation of 0.67. With reference to the given indicators item number 3 got the highest mean and interpreted as well implemented, wherein the level of readiness in disaster response capacity to integrate and coordinate search, rescue and retrieval are very profound.

The main reason why it gain the highest mean, because disaster response rescue and retrieval

capacity is very crucial followed by other indicators such as establishing relief operations and prompt assessment of needs and damages wherein considerably important after a disaster occur. On the other hand, psycho social needs of affected population should be addressed to provide emotional and social support in order for them to feel safe in their environment , as it yield the lowest mean of 4.34. More seminars and training on this should be conducted to facilitate psycho social support to affected individuals.

To organize and bring together Search, Rescue, and Retrieval (SRR) capacity in the educational environment, schools need to take on an organized method that fits into national disaster response structures but remains realizable for the school atmosphere. It can be efficiently carried out through the formation of a School-Based SRR Team with teachers who have been handpicked, security guards, custodians, and student leaders (e.g., members of Boy Scouts, YES-O). They should be officially assigned in the School DRRM Committee and responsibilities well defined. Training and capacity building in coordination with the local DRRM offices, Bureau of Fire Protection (BFP), Philippine Red Cross or recognized NGOs must be provided to them .Training consists of elementary search and rescue skills, use of light equipment (e.g., stretchers, ropes), evacuation and triage processes and Psychological First Aid (PFA). Regular drills and simulations, incorporating SRR scenarios during earthquake and fire drills and finding and helping "injured" persons. Assess and enhance procedures following each drill coordination with external responder. Develop protocol for early communication with barangay DRRM teams or rescue units. Equipment and supplies such as emergency kit consisting of stretchers, flashlights, whistles, crowbars, gloves, first aid supplies should be kept in a readily accessible safe location. Ensure that schools possess an organized, well-trained, and responsive SRR team to respond speedily and efficiently in case of emergencies like earthquakes, fires, or structural collapses.

If the psychological needs of the impacted population in the school environment were not adequately addressed, then it indicates an extreme gap in disaster response and recovery. To address this gap, it is needed to figure out why it did not work and how to make it better. Lack of trained personnel is the first reason, no or limited teachers and staff are trained in Psychological First Aid (PFA) or basic counseling techniques. No assigned school mental health focal person or guidance counselor (particularly in small or rural schools). Low budget allocation for mental health programs, prioritization is left in the background (e.g., physical evacuation and infrastructure) while emotional and psychological recovery is not given importance. There is no clear budget for budgetary allocation for mental health programs post-disaster. Another lack of clear procedures, School DRRM plan does not have an organized Psychosocial Support (PSS) component, No step-by-step guide on how to identify and refer students who have experienced trauma or stress. And finally, insufficient support materials, minimal availability of resources like self-care toolkits, counseling rooms, or recovery activities (e.g., debriefing sessions, art/play therapy).

Table 11
Level of Readiness in Terms of Disaster Recovery and Rehabilitation

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	Damages, Losses and Needs Assessed.	4.56	0.63	Very well implemented
2.	Economic activities restored and if possible, strengthened or expanded.	4.51	0.64	Very well implemented
3.	DRRM and CCA elements are mainstreamed in human settlement.	4.47	0.65	Well implemented
4.	Disaster and Climate change resilient infrastructure constructed/reconstructed.	4.47	0.65	Well implemented
5.	A psychologically sound, safe and secured citizenry that is protected from the effects of disasters can restore to normal functioning after each disaster.	4.52	0.66	Very well implemented
Over-all		4.50	0.64	Very well implemented

Legend: 4.50 – 5.00 very well implemented, 3.50 – 4.49 well implemented, 2.50 – 3.49, implemented , 1.50 -2.49 less implemented, 1.00 – 1.49 not implemented

The table above displayed the summary perception of the respondents regarding disaster recovery

and rehabilitation with an overall mean of 4.50 interpreted as very well implemented. In final analysis indicator number 1 which is damages, losses and needs are assessed got the highest mean of 4.56 with a standard deviation of 0.63 interpreted as very well implemented. As to other statements wherein economic activities are restored and strengthens to normal functioning after each disaster also got a very well implemented verbal interpretation which suggest that DRRM readiness in terms recovery and rehabilitation that includes restoring damaged infrastructure, rebuilding communities and strengthening resilience against future events are very perceptible.

In connection, statements number 3 and 4 got the same mean value of 4.47 with both well implemented verbal interpretation. Both indicate that DRRM elements should be mainstreamed in settlement areas and improved infrastructure resiliency at the same time.

Inside the school environment, determining damages, losses, and needs following a disaster is important in order to prepare effective response, recovery, and rehabilitation. DRRM is a centralized electronic system utilized by schools, local government units, and agencies to gather, manage, analyze, and report information pertaining to disaster readiness, response, and recovery. It was maintained by School DRRM Coordinator and School Head/Principal, in consultation with Division DRRM Coordinator.

DRRM in schools is a data gathering and reporting system implemented by the Department of Education (DepEd) to gather, store, analyze, and manage disaster data from schools. It facilitates schools to report and react to emergencies, prepare for disasters, and monitor the status of the learners and infrastructure upon a hazard. Its primary objectives were to enhance disaster readiness by having updated hazard and risk data, facilitate real-time incident report, damages, and need reporting, facilitate decision-making and resource deployment and track implementation of DRRM-related activities at the school level. There were facilities and systems utilized such as DepEd RADaR (Rapid Assessment of Damages Report), LIS integration for student data affected, School DRRM Monitoring Tools (survey forms, checklists), Google Forms/Sheets for local data collection (when offline systems are employed). This implied that public schools took a long-term recovery to ensure that the rehabilitation or reconstruction of infrastructure is disaster and climate-proof. The school adopts the various legal basis and policy framework as mentioned in RA 10121 – Philippine Disaster Risk Reduction and Management Act, DepEd Order No. 33, s. 2021 – DRRM in Basic Education Framework, DepEd DRRM Manual (2018) Guidance for schools in implementing DRRMIS and RADaR, and RA 10821 – Children's Emergency Relief and Protection Act.

For support, Dominguez (2014) reported that the rate of disaster rehabilitation and recovery is only indicative that DRRM team coordinates for improvement and restoration of livelihood, living conditions and organizational capacities following a disaster.

Table 12

Extent of DRRM Capabilities in Terms of Objectives of the Program

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. Address the vulnerabilities to disasters.	4.49	0.62	Capable
2. Incorporates principles guided by the school and community stakeholders.	4.48	0.58	Capable
3. Adopts an approach that is comprehensive in lessening the school impact of disasters.	4.52	0.61	Highly Capable
4. Involves the help of barangay council and parent-teacher association.	4.51	0.59	Capable
5. Engage the participation of private sectors in the school's disaster risk reduction programs towards completion of resources.	4.48	0.63	Capable
Over-all	4.50	0.61	Highly Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

As indicated in table 12 in extent of DRRM capabilities in terms of objectives of the program indicator no. 3 got the high mean of 4.52 with a standard deviation of 0.61 got a highly capable verbal

interpretation which is to adopt an approach that is comprehensive in lessening the school impact of disasters.

It suggest that Disaster Risk Reduction and Management (DRRM) as an agency that in charge in disaster management should create a contingency plan and extensive path to ensure that it carries out vision, mission and ideals of the organization. At the community and school set up coordinators of DRRM are in charge to be train, for them to craft an extensive plan in response to future disasters. While on the other hand, statements 2 and 5 got the lowest mean of 4.48 both with agree interpretation which are incorporates principles guided by the school and engage the participation of private sectors in the disaster risk reduction programs .

In order to take on a holistic approach that reduces the school vulnerability to disasters, the school needs to incorporate various strategies that span prevention, preparedness, response, recovery, and capacity-building against disasters. Carried out recurrent physical risk assessments (e.g., flooding, earthquakes, typhoons) and social vulnerability assessments, map hazard zones within and surrounding the school, construct or retrofit school buildings to safety standards and climate-resilient building designs, make facilities such as water supply, sanitation, and electrical systems disaster-resistant, incorporate of DRRM in curriculum. And teachers must also instruct students on disaster preparedness, the effects of climate change, and environmental protection, apply experiential education: simulation, drills, projects. Also, train staff members, teachers, and students in disaster preparedness, first aid, and emergency response. Establish and periodically revise the School DRRM Plan. Install warning receiving and disseminating systems rapidly, Put in place communication procedures during emergencies. Establish defined evacuation routes and assembly points, Conduct periodical drills and simulations, stock emergency kits and supplies. Lastly offer counseling and assistance to those affected, engage parents, local authorities, and community agencies in planning and response.

The benefits of Comprehensive Approach, reduces injury and loss of life, lessens harm to school property, provides continuity of schooling, establishes a safety and resilience culture among students and staff and enhances partnerships with community and government agencies.

Engaging the private sector in school DRR initiatives considerably enhances disaster preparedness, response, and recovery. Their collaboration, resources, and capabilities can complement gaps that public facilities cannot yet provide. Companies may contribute goods such as emergency kits, radios, study materials, or construction materials. They may sponsor the building or reconstruction of disaster-resistant classrooms and facilities. They can also facilitate technical skills, capacity development and innovation. They can bring in digital mapping of school hazards, mobile alerting systems, DRRM information systems (facilitating DRRMIS). In times of emergency, companies can provide logistical assistance (e.g., transport, communication, relief commodities), temporary housing or tents, volunteer labor. Partnerships foster long-term commitment, fosters community ownership of disaster risk reduction, enhances public awareness and multisectoral partnerships.

If the participation of private sectors in the school's Disaster Risk Reduction (DRR) activities to fill up resources was not achieved, it indicates lost opportunities for partnership and mobilization of resources.

According to this Tsunami and Earthquake Preparedness Program (2015), disaster risk reduction and management (DRRM) in the Philippines is an essential component of national policy and community resilience, considering the vulnerability of the country to a large number of natural hazards such as typhoons, earthquakes, volcanic eruptions, and floods. The goals of DRRM include an integrated approach that encompasses disaster preparedness, response, recovery, and mitigation measures. It seeks to minimize the effect of disasters on populations, safeguard lives and assets, and increase the aggregate resilience of affected groups.

Table 13*Extent of DRRM Capabilities in Terms of School Emergency Management Plan*

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	Establishes school emergency management committee.	4.53	0.53	Highly Capable
2.	Develops procedures to be implemented in the event of emergency.	4.58	0.56	Highly Capable
3.	Utilizes a combination of all strengths and resource available within a community, society or organization.	4.53	0.63	Highly Capable
4.	Post a directory of emergency contact numbers of relevant government agencies and offices in various areas of the school.	4.55	0.55	Highly Capable
5.	Establishes early warning mechanisms and inform all students and personnel.	4.53	0.58	Highly Capable
Over-all		4.55	0.57	Highly Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

It appears from table 13 perceived of the respondents extent of DRRM capabilities in terms of school emergency management plan with an over- all mean of 4.55 and a standard deviation of 0.57. The table showed that most of the respondent's school are highly capable and have an emergency management plan which is established and implemented in the event of emergency. Resources available, communication directory and warning mechanism are well disseminated to all personnel and students as well. As inferred, all indicators got highly capable verbal interpretation.

For ensuring the safety and preparedness of the school community, it is critical to create well-defined, orderly emergency procedures that can be executed prior to, during, and subsequent to a disaster or emergency. To safeguard students, employees, and visitors in emergencies by having clear guidelines for preparedness, immediate action, and post-event procedures.

General Emergency Response Procedures entails activation of the emergency alarm, staff's immediate action and evacuation procedure. School Head/Principal is overall command and communication with authorities, DRRM Focal Person-activates DRRM plan, coordinates emergency response, Teachers - Lead and account for their classes they must secure exits, turns off power/gas, maintains order. Use of loudspeakers, two-way radios, or megaphones should be readily available.

Post-Emergency school procedures are also crucial it involves re-evaluating safety prior to re-entry into buildings, offer psychosocial assistance for pupils and teachers, record incident and revise the School DRRM plan and debrief staff and conduct a review meeting in order to enhance response. The school also have measures of preparedness such as regular emergency drills (e.g., earthquake, fire), posting evacuation maps in all rooms, keeping emergency kits in classrooms and admin office, staff training in First Aid, PFA, and basics of DRRM.

Implementing and disseminating Early Warning Mechanisms (EWM) in schools is important to ensure the safety of the lives of learners, educators, and school staff during disasters or emergencies. A good system guarantees that timely, understandable, and actionable information is received by all those at risk—before, during, and after a disaster.

The school employs a mix of communication tools to make sure that everyone is accessed like school announcements, fire/earthquake, etc., separate sounds, text alerts/SMS for parents, teachers, and LGU coordination, megaphones/whistles during evacuation or outside alarms and Two-Way Radios for communication with DRRM team or barangay.

The school also install signs and visual information such as post emergency exit signs and hazard area maps in each classroom, such as color-coded signs and icons for easy comprehension and ensure that signs are legible and located at strategic points (stairs, exits, corridors).

In case the school has suffered from a failure to initiate early warning systems and notify all students and staff, it is an immediate danger during crises. It will be delayed response in disasters (e.g., earthquake, fire, flood), student and staff confusion and panic, Increased risk of injury or fatality, loss of

confidence in school safety systems, and inability to account for all students and staff during evacuation.

Table 14

Extent of DRRM Capabilities in Terms of Organization and Management

Indicators				Mean	Std. Deviation	Verbal Interpretation
1.	Organize	disaster	management	4.52	0.58	Highly Capable
	committee	through	organizational			
	chart.					
2.	Establishes	and	develops	4.53	0.67	Highly Capable
	teams with	specific	tasks (eg. First			
	Aid Team,	Site Security	Team, Fire			
	Safety Team,	Evacuation	Team,			
	Communication	Team, etc.)				
3.	Conducts	consultative	meetings for	4.47	0.65	Capable
	Damage	Assessment	and Need			
	Analysis (DANA)					
4.	Provides	Incident	Command	4.51	0.59	Highly Capable
	Post	which is	flexible for			
	any untoward	problems	that may			
	arise from	emergency	management			
	plan					
5.	Give	roles to	teachers on	4.46	0.65	Capable
	different	organization	on different			
	emergency	team.				
Over-all				4.50	0.63	Highly Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49

Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Table 14 reflects perceived extent of the respondents on DRRM capabilities as to organization and management, establishes and develops several teams with specific task got the highest mean average of 4.53 and a standard deviation of 0.67 with highly capable interpretation, while giving roles to teachers on different organization on different emergency team got the lowest mean average of 4.46 and a standard deviation of 0.65 with capable interpretation.

It emphasized that establishing several teams with specific task helps team organization and management. Role designation and task assignment contributes to the success implementation of risk reduction plan when a disaster occur. Likewise, organizing management committee and incident command post which is flexible when untoward problem arise is an important part of disaster management.

In Disaster Risk Reduction and Management (DRRM), organization and management play a critical role in ensuring effective disaster preparedness, response, recovery, and mitigation. It involves the coordination of multiple actors, the development of clear roles and responsibilities, and the implementation of plans to reduce risks and respond to disasters efficiently. This organizational structure ensures that resources are used optimally and that communities can recover quickly from disasters.

On the other note which is giving roles to teachers on different organization on different emergency teams seems difficult because of heavy workload among teachers. Teachers are a vital part of the emergency management structure in schools. They have a multifaceted role that includes not just ensuring the safety of students, but also providing emotional support, communicating vital information, and helping with long-term recovery. Each teacher's role may vary based on their expertise, training, and the specific needs of their school, but their involvement is key to a coordinated, effective response to any emergency.

Within the school environment, the creation and organization of various disaster response teams with well-defined roles is a necessary component of an efficient Disaster Risk Reduction and Management (DRRM) system. So that all members understand their roles in times of emergency and can act quickly, in a

coordinated manner, and save lives. The school assign members at the start of the school year, hold team-specific trainings, hold simulation drills with every team engaged, make ID tags or vests ready to distinguish team members in case of emergencies and equip every team with the tools and equipment they need.

It can be difficult to assign teachers to various emergency response teams in school disaster response planning plans because there are various actual-world constraints. There is the usual issue of having overlapping responsibilities where teachers are already tasked with full-time academe responsibilities. Having multiple membership (e.g., First Aid and Search & Rescue) can cause confusion during real emergencies. Inadequate training or competency is a constraint since most teachers do not receive formal training in firefighting, first aid, or rescuing. Some instructors might feel uncomfortable or unwilling to engage in high-risk activities (e.g., rescue, fire protection). Lack of practice time may also be taken into account since orientation sessions and drills can conflict with the academic calendar. Finally insufficient equipment or materials where teams are unable to execute tasks effectively without fundamental tools (e.g., first aid kits, megaphones, flashlights).

To aid the result, Norbert (2016) identified organization, management, communication and coordination as key in determining the success and/or failure of DRMM initiatives. One can intuitively glimpse from this work that an integrative institutional framework covering institutional structure, planning and management, efficient resource provision, capacity building, and positive bureaucratic employment can lead to the realization of DRRM goals.

Mahmut et. al, (2016) discovered that disaster management performance antecedents and institutional capabilities were positively associated with disaster-oriented competencies. Inter-organizational collaboration and effective logistics service were considered critical to the success of disaster management and reducing the length of catastrophes.

Table 15

Extent of DRRM Capabilities in Terms of Communication Network

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. Coordinates contingency plan to disaster risk reduction management committee, barangay council and parent-teacher community association.	4.51	0.62	Highly Capable
2. Provides several teams with specific task report to the Incident Command Post for Damage Assessment and Needs Analysis (DANA).	4.52	0.62	Highly Capable
3. Develops a smooth flow of communication between officer, staff and different responding team.	4.51	0.61	Highly Capable
4. Provides bull horns/megaphones available and ready to use.	4.61	0.61	Highly Capable
5. Provides two-way radio for communication available and ready to use.	4.63	0.58	Highly Capable
Over-all	4.55	0.61	Highly Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Provides two-way radio for communication available and ready to use got the highest mean average of 4.63 and standard deviation of 0.58, since Maintenance and Other Operating Expense or MOOE has a 5% allotment for DRRM other communication tools comes from LGU or Division DRRM Office, on the other hand coordinates contingency plan to disaster risk reduction management committee, barangay council and parent-teacher community association and develops a smooth flow of communication between officer, staff and different responding team got 4.51 mean average both have a value interpretation of

highly capable result. Lowest mean statements implicate that sometimes there are lack of communication and coordination among other committee or stakeholders involve in risk reduction management team.

This table shows an overall result of 4.55 and standard deviation of 0.61 and yields a highly capable. It implies that in the occurrence of a disaster communication is the key to prevent further damages on lives and facilities.

Supplying two-way radios to schools is an essential measure to achieve dependable communication in case of emergencies—particularly when power or cell networks are out. It facilitates quick, direct, and unbroken communication among critical personnel during emergencies like earthquakes, fires, floods, or lockdowns. In schools, there were the allocation of radio units to school head/offices, DRRM coordinator, gate/guards, first aid/clinic, search and rescue leader, fire safety/utility team, and evacuation team leader. Individuals were oriented on rudimentary radio operation .

Two-way radios offer instant communication between employees without having to dial numbers or waiting for a cellular link. It is also Suitable for quickly calling attention in timely situations such as earthquake, lock-downs, fires, medical emergencies. It functions well indoors and over campus locations, including areas where cell phones can have low reception. We doesn't depend on mobile networks or Wi-Fi, which tend to fail or get crowded in times of emergencies. One-to-many broadcasting is also facilitated, any message will go to all employees simultaneously, so they'll all hear the same command at the same time. It helps provide a definitive chain of command, encourages consistency in response, facilitates communication, increases student and employee safety, aids coordination with emergency services, enables training and drills, assists in post-emergency rehabilitation, establishes trust with parents and community.

Coordination with the school contingency plan of the DRRM committee, barangay council, and Parent-Teacher Association (PTA) may be difficult. To enhance cooperation and achieve a more coordinated disaster response, the school plan schedules far ahead and provides flexible time arrangements, such as after-school or weekend work. In the course of PTA assemblies, we give quick, graphic overviews to describe the significance and how it relates to their children/community. We also have representation of barangay and PTA in our internal DRRM Committee to enhance collaborative decision-making.

Table 16
Extent of DRRM Capabilities in Terms of Emergency Management Protocols

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. Establishes systematic emergency procedures in the school in any untoward events or emergencies.	4.41	0.69	Capable
2. Provides flexible plan that analyzes specific potential events or emerging situations that might threaten the school	4.44	0.70	Capable
3. Develop step-by-step procedures for school to implement in the event of an emergency.	4.48	0.69	Capable
4. Provides adaptable protocols as the need arise (e.g. Plan A, Plan B, Plan C, etc.)	4.44	0.67	Capable
5. Conducts contingency plan for Damage Assessment and Needs Analysis (DANA).	4.45	0.65	Capable
Over-all	4.45	0.68	Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Table 16 is the perceived extent of the respondents on capabilities as to emergency management protocols, develop a step-by-step procedures for school to implement in the event of an emergency got the highest mean average of 4.48 and a standard deviation of 0.69. It shows that schools crafted an emergency plan during a disaster that includes clear communication, defined roles for staff, evacuation and shelter-in-place procedures and regular drills to ensure preparedness. Establishes systematic emergency procedures in the school in any untoward events or emergencies got the lowest mean of 4.41 with a standard deviation of 0.69.

Emergency management protocols are systematic procedures that assist institutions such as schools, hospitals, governments, and corporations in planning for, responding to, recovering from, and mitigating emergencies. These protocols form the core of an efficient emergency management system, with the goal of reducing harm, saving lives, and promptly returning to normal operations.

Step-by-step emergency guide most of the schools in the district follow in case of an emergency. To start, Alert and Activate Emergency Response where early warning system was triggered and main personnel were alerted. Second, immediate safety measures wherein teacher and staff guide the students to implement the emergency signal protocol, adopt "Duck, Cover, Hold" for earthquake or instant evacuation for fire and calm them down, to prevent panic. Students were instructed to quickly and quietly follow teacher instructions. Third, shelter in place / evacuation, the team leads students through predetermined escape routes. Check rooms, move to designated assembly area, roll call, make sure no one is left behind. Remain silent and hidden and wait for further direction. First Aid Team would provide assistance to injured students/staff and be ready to transfer serious cases to hospital.

Search & Rescue Team would probe for trapped or missing individuals and help in evacuation safely. Incident Command Team would contact local emergency response units and Barangay DRRM. Utilize two-way radios or mobile phones for updates and report parents, if needed, through proper communication channels. Documenting the incident, damage, and response measures for review and improvement is next in order. Emergency procedures are a school's top priority because they offer a precise, usable instruction in a time of crisis. It reduces panic and confusion- presenting clear steps to staff and students something to adhere to, minimizing panic. Clear steps ensure that effective drills and simulations are easier to perform. It creates confidence and muscle memory for the actual situation. Finally, it enhances parent and community confidence, demonstrating that the school is proactive and ready, and provides parents with a sense of security knowing their children are safe. Without formalized emergency procedures, schools can be left in confusion, respond slowly, and suffer greater harm when disasters or emergencies happen.

For the sake of the findings, Gubalane (2015) said that contingency planning is in fact a core tool, yet effective plan cannot do without having an empowered citizenry, infrastructures, emergency response mechanisms, rehabilitation, and other logistics. Planning and preparation for disasters are continuous processes. Even though it is not simple to plan ahead, the need to obtain good results necessitates it, and it is increasingly more morally and economically vital after each incident. The financial prosperity of the above would raise questions regarding the ability of the government or local government units, schools or universities and/or organizations to pay.

Table 17
Extent of DRRM Capabilities in Terms of School Emergency Action

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. Gives students activities to learn or study disaster or disaster management by themselves through books, tv, or various media or materials.	4.49	0.64	Capable
2. Serve as evacuation centers on the occurrence of unpredictable disaster.	4.38	0.65	Capable
3. Regularly conducts disaster drills (e.g. earthquake drill, fire drill, typhoon drill or flood drill)	4.59	0.57	Highly Capable
4. Integrates the disaster risk education into school curriculum	4.52	0.58	Highly Capable
5. Practices proper waste segregation and promoted organic vegetable gardening.	4.47	0.65	Capable
Over-all	4.49	0.62	Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

It shown in the table the respondents perceived extent of capabilities in terms of school emergency action , wherein statement number 3 got a high mean of 4.59 and a standard deviation of 0.57 with highly capable verbal interpretation. Regularly conducts disaster drills (e.g. earthquake drill, fire drill, typhoon drill or flood drill) are part of DRRM activities done to ensure preparedness when a disaster take place. It is a regular activity wherein all members of the school teaching and non-teaching personnel , students and others take part as DRRM coordinator lead the said activity .

An effective school emergency plan is a critical document designed to prepare staff, students, and stakeholders for various crises, ensuring safety and minimizing harm. Schools in Rizal and Nagcarlan District regularly conducted such drills to prepare every member of the school community.

Conducting regular disaster drills is the key to forging preparedness and to making sure that everyone within the school is aware of responding calmly and properly in the event of an emergency. Schools within the Division of Laguna specifically, within the Nagcarlan -Rizal Sub-Office, hold drills regularly as per DepEd orders/memorandum at least quarterly. Alternating the time of day and the type of drill (earthquake, fire, lockdown) to anticipate various scenarios. We also charge with mimicking real-life situations that involves surprise drills at times to try out readiness. Making sure there is involvement by students, teachers, employees, as well as visitors. Defining specific roles for team members in drills. Conducting debriefing after every drill on what was good and areas of improvement. Recording observations and reviewing the emergency plan accordingly. The school DRRM committee liaises with local fire station, police, and MDRRM office to join or witness drills.

This strengthens partnerships at the community level and enhances coordination. When schools are used as evacuation shelters in unforeseen calamities, they are pivotal in offering secure shelter and assistance to the affected communities. Under DepEd Order No. 022, s. 2024 – Amended Rules on Class and Work Suspension During Disasters and Emergencies there were some guidelines for the utilization of schools as evacuation sites: First, schools can be used as evacuation sites for a maximum of 15 days to avoid interfering with education activities. Second, LGUs need to coordinate with School Heads and Schools Division Superintendents prior to utilizing school facilities as evacuation sites. A Memorandum of Agreement (MOA) must be signed to make this agreement official. Third, non-instructional spaces like the gymnasiums, learning and activity centers, and auditoriums must be used first. The classrooms are reserved only as a last option. Fourth, School staff are mostly engaged in educational services and are not to be delegated as camp managers. Yet they can be asked to provide service for school facilities and resources monitoring subject to health protocols. Fifth, DepEd regular inspections, together with the Department of Public Works and Highways (DPWH) and the Bureau of Fire Protection (BFP), are required to provide assurance of the stability and safety of school buildings used as evacuation centers. Finally, LGUs are also tasked with cleaning, fumigating, and repairing schools that are utilized as evacuation centers. Any damages sustained must be reported by School Heads to the LGU for it to act accordingly.

The local government of Rizal and Nagcarlan has already adopted a planned evacuation center in their respective area, since according to Republic Act No. 12076 – Ligas Pinoy Centers Act, such newly passed act requires each city and municipality in the country to have dedicated evacuation centers. It is meant to preclude dependence on public school facilities by offering evacuation centers that will be suitable for the displaced person's needs during disasters.

Grant (2015) emphasized that the awareness of disaster in schools, can be integrated in institution by posting safety rules strategically, fitting firefighting equipment, evacuation exits, maintaining buildings, conducting seminar on disaster awareness and the use of peer education, electronic and print media, action learning and employing science education as a vehicle to introduce the study of disaster risk.

Table 18*Extent of DRRM Capabilities in Terms of Manpower Development and Training*

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	Establishes manpower development and training committee.	4.43	0.64	Capable
2.	Give roles and responsibilities to staff according to their skills.	4.38	0.65	Capable
3.	Provides trainings for disaster risk reduction management committee, barangay council, and parent-teacher community association to acquire skills, and competencies in times of hazard and disaster.	4.47	0.62	Capable
4.	Conducts continuous training of skills to response to any untoward events of calamities and real-life situation.	4.43	0.57	Capable
5.	Provides different activities on practicing their skills on how to response on disaster.	4.45	0.61	Capable
Over-all		4.43	0.62	Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Perceived extent of the respondents on capabilities as to manpower development and training is in the data for table 18. Thus provides training for disaster risk reduction management committee, barangay council, and parent-teacher community association to acquire skills, and competencies in times of hazard and disaster has the highest mean average of 4.47 and standard deviation of 0.62, while giving roles and responsibilities to staff according to their skills is the lowest with mean average of 4.38 and 0.65 for its standard deviation that both falls under capable interpretation . In addition, it has an overall mean average of 4.43, standard deviation of 0.62.

It implies that risk reduction training equips individuals and communities with the knowledge and skills to identify, assess and manage risks, ultimately the likelihood and impact of disasters .In our school context training/ courses were provided to teachers in order for them to be equip with necessary skills in risk reduction management . Some of them are included in Learning Action Cells (LAC) sessions conducted in schools.

A Disaster Risk Reduction and Management (DRRM) School Committee, Barangay Council, and PTA (Parents-Teachers Association) training program is needed to establish a strong, collective disaster response. All earthquake drills required by Office of Civil Defense through the Division of Laguna DRRM, collaborative effort from school, Barangay, PTA (Parents-Teachers-Association) and other NGOs was established for disaster preparedness and response build-up. It also facilitated coordination and collaboration, minimized risks and reduced effects of disasters on the school community and empowered stakeholders who can lead and assist in emergency endeavors. It instructs procedures for fast and accurate communication among school authorities, barangay responders, and parents. Averts misinformation and panic under crisis situations. Parents are taught how to act towards responding to emergencies in schools and assisting in school planning.

It establishes a culture of safety and responsibility for student welfare. Complies with the Philippine DRRM Act of 2010 and DepEd regulations mandating schools to have DRRM plans and trained staff. The training enables schools and communities to attain legal and safety standards. Training ensures all groups (school, barangay, parents, students) comprehend their respective roles. Ensures unified action during emergencies, preventing confusion or delay. Inability to delegate roles and responsibilities to school personnel according to their skills during emergencies is one of the common problems that can compromise

disaster response efficiency. The school DRRM team survey or interview personnel in determining individual competencies and emergency response experiences and keep skills current through an updated database. It also creates in-depth role descriptions specific to skill sets and designate main and alternate roles for redundancy. Furthermore, the Laguna division office under DRRMO and MDRRMO provides specialized training (e.g., first aid, ICS, communication protocols) with scenario-based drills so staff can rehearse assigned roles. We also engage staff in planning and decision-making to enhance participation and acknowledge their contribution during and after emergencies. There are also flexibility plans to handle multiple functions as situations evolve.

According to the World Economic Forum, (2020)hypothesized that several private enterprises conduct training and capacity development programs for government agencies and local communities. This may involve offering technical training in disaster response protocols, risk assessment techniques, and emergency preparedness plans. With the provision of necessary skills and knowledge to local stakeholders, the private sector helps in fostering a culture of preparedness.

Table 19

Extent of DRRM Capabilities in Terms of Development and Training Needs

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. Capacitate teachers and students on dealing with change.	4.39	0.68	Capable
2. Delivers consistent training.	4.39	0.66	Capable
3. Engage the learners to the skills application needed.	4.46	0.62	Capable
4. Improves learning effectiveness.	4.43	0.67	Capable
5. Practices tracking and post-assessment of the disaster risk reduction.	4.44	0.61	Capable
Over-all	4.42	0.65	Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Table 19 shows the perceived extent of the respondents DRRM capabilities as to development and training needs. Among the 5 indicators, indicator 3, engage the learners to the skills application needed got the highest mean average of 4.46 with a standard deviation of 0.62. On the other hand, indicators 1 and 2, capacitate teachers and students on dealing with change and delivers consistent training got the lowest mean average of 4.39 and a standard deviation of 0.68. The result implies that learners should be included in skills training for them to secure themselves in times of disaster. As such teachers and learners should be flexible and adaptive in whatever scenario they will be dealing in the future because disasters are unpredictable nowadays.

Effective development and training in DRRM are crucial to ensuring a timely and coordinated response to disasters. It involves continuous learning and adaptation to new risks, technologies, and practices. By investing in training across all sectors communities, government agencies, specialized teams, and educational institutions countries can significantly enhance their disaster preparedness and resilience, ultimately saving lives and reducing long-term impacts.

Invoking learners to put into practice skills required during emergencies or disasters is crucial in enhancing their confidence, consciousness, and effectiveness of response. The student volunteer team of school DRRM conducts weekly routine 30 minute to one hour earthquake, fire, and lockdown drills where volunteer students conduct trainings actively on evacuation, first aid, spine board and wheeled chair usage, two-way radio communication and other safety measures. Complex scenario-based simulations that involve decision-making and problem-solving were deliberated on, studied and conducted. Demonstration and hands-on practice were overseen by the immediate supervisor of the DRRM coordinator where peer-to-peer instruction was fostered to enhance skills and awareness. All the trained student volunteers were given

assignments as quick response teams that will be in charge and support during drills and emergencies and other sanctioned school activities. If the teachers and students are incapacitated in handling change in cases of emergencies, the school's capacity to respond effectively and uphold safety and order is greatly undermined. The school incorporated adaptive skills training through Learning Action Cell (LAC) that target emotional resilience, managing stress, and decision-making under crisis. In organize drills we were practicing various kinds of emergencies with varying variables. These involve unanticipated variations during rehearsals (e.g., obstructed exits, varying hazards, absent students, student's actors with health issues and disability) to develop adaptability. We also enhance psychological readiness of teachers and students on recognizing and coping with fear and anxiety and include basic psychological first aid in training. Finally, we employ plain, consistent language and multiple communication channels to create a setting in which students and teachers feel safe to raise issues and ask questions.

Additionally, Mastrorillo et al., 2016 referenced that DRRM organize workshops highlighting the significance of local knowledge and practices in disaster management. The workshops/ training not only inform people in communities about dangers but also engage them in planning and implementing disaster risk reduction measures. Through participatory strategy, local information is incorporated into formal governance structures, hence making disaster management strategies more relevant and effective.

In Disaster Risk Reduction and Management (DRRM), ongoing development and training are integral to ensuring that everyone—either as part of communities in the locality, government officials, or as specialized responders—is properly equipped to address disasters. Proper training and capacity building increase the preparedness of organizations and communities, enhance decision-making mechanisms, and improve the overall resilience of societies.

Furthermore, Torani et al. (2019) conveyed that disaster training is a realistic, functional, and economical step towards the management of sheltering a number of risks associated with emergencies. Evidence suggests that it is necessary to educate susceptible populations about disasters. Although there are various ways through which these groups can be educated, none is better than others. But the trained individuals are better placed to defend themselves and other individuals in times of crisis. Thus, it is essential to conceptualize and establish disaster education programs targeted at equipping members of the public with the skills needed to combat disasters.

Table 20

Extent of DRRM Capabilities in Terms of Equipment and Facilities

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	Mobilizes resources needed to address the emergency.	4.41	0.64	Capable
2.	Regularly check first aid kits inside the classrooms which include medicine and essential for primary treatment and other ailments.	4.40	0.71	Capable
3.	Establishes functional command center for school disaster risk reduction management.	4.40	0.65	Capable
4.	Install appropriate and available fire suppression equipment or resources such as fire extinguisher, water source, and other indigenous materials.	4.44	0.72	Capable
5.	Prepares an evacuation/exit plan and directional signage on every floor of the building.	4.50	0.61	Highly Capable
Over-all		4.43	0.67	Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Table 20 reflects the summary of perceived by respondents in terms of equipment and facilities wherein prepares an evacuation/exit plan and directional signage on every floor of the building got the highest mean average of 4.50 with 0.61 standard deviation. While regularly check first aid kits inside the classrooms which include medicine and essential for primary treatment and other ailments and establishes functional command center for school disaster risk reduction management yield the lowest mean which is 4.40 . Overall result shows 4.43 mean averages and a standard deviation of 0.67 and a capable interpretation.

It implies that evacuation / exit plan and directional signage on every floor of the building should be posted and visible to all to facilitate easy desertion during a disaster. Most of the schools in Rizal and Nagcarlan District requires to display evacuation plan on each building as mandated their division DRRM committee. In charge of that is their school DRRM coordinator that ensures facilities and equipment are readily available. While the lowest mean indicates that most respondents do not have an establish command center for school disaster risk reduction management because they prioritize the use of buildings as classrooms .

Conducting an evacuation is vital in having an evacuation/exit plan and making directional signs available on each floor of the school building in order to secure the safety of students, teachers, and visitors in case of emergencies. The school DRRM creates the Evacuation/Exit Plan through an assessment of the layout. Producing or revising floor plans indicating all rooms, exits, staircases, and assembly points. Determining the main and secondary exits. Marking at least two exit routes on each floor to provide alternatives in case one route is obstructed. Assigning assembly point, safe, open spaces outside the building where the evacuees will congregate. Taking into consideration personnel and students with special requirements. Incorporating accommodations for people with disabilities.

Designing precise instructions in a step-by-step evacuation process, such as the roles of staff. Install school directional signage in strategic places such as corridors, stairwells, entrances, and exits. The signage must utilize large print and simple font and high-contrast colors; for consideration, glow-in-the-dark or lighted signs. Standardized symbols (e.g., exit arrows, running figure) should be used on signage. We maintained periodic checking and signing of signage to keep it visible and intact. We also refer to the local fire departments and municipal disaster management office for plan validation and compliance to safety. Finally, the school review and revision of the plan every year or after building layout changes was conducted.

Neglecting to check first aid kits within classrooms on a regular basis can significantly undermine the school's capacity to respond efficiently during emergencies. Expired or empty supplies might not be discovered, rendering kits useless when emergency strikes. Absence of vital items postpones response time when injury or emergency occurs and potential health hazards by using contaminated or damaged materials. The school safety officers/ clinic or DRRM coordinator was tasked to check first aid kits on a regular basis. It involves verifying expiration dates, refilling consumed items, maintaining cleanliness and performs random inspections of first aid kits.

In aid to this, Grant (2012), disaster awareness in schools can be integrated in institution by placing safety rules in strategic locations, installing fire equipment, evacuation maintain buildings, holding seminars on disaster awareness and including child-to-child peer education, use of songs, electronic and print media, action learning and using science education as platforms to introduce studies of disaster risk.

In addition, Sala, (2019) articulated that public schools will ultimately locate material facilities keeping in mind that there is no sufficient fund to be invested in DRRM program particularly in the provision of required DRRM facilities, equipment and materials compared to other programs, activities, projects of the Department of Education (DepEd) in terms of access, quality and relevance, and governance.

Table 21
Extent of DRRM Capabilities in Terms of Financial Resource and Capabilities

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	Examine the availability of funds for the school community to conduct disaster risk reduction activities.	4.34	0.70	Capable
2.	Organizes the resources they need or have to make appropriate decisions about such resources on the disaster risk reduction management.	4.38	0.65	Capable
3.	Provides learning materials about disaster risk reduction like textbooks, videos, modules that is available from time to time.	4.28	0.71	Capable
4.	Conducts fund raising projects that will provide the resources that will be needed by the disaster risk reduction management.	4.24	0.80	Capable
5.	Prepares budget for DRRM that comes from DepEd, LGU, PTA council officials, and NGO's.	4.34	0.68	Capable
Over-all		4.32	0.71	Capable

Legend: 4.50 – 5.00 Highly capable, 3.50 – 4.49 Capable, 2.50 – 3.49 Moderately capable, 1.50 – 2.49 Less capable, 1.00 – 1.49 Incapable

Table 21 shows the perceived levels of respondents on capabilities as to financial resources and capabilities. Organizes the resources they need or have to make appropriate decisions about such resources on the disaster risk reduction while conducts fund raising projects that will provide the resources that will be needed by the disaster risk reduction management got a mean average of 4.24 and a standard deviation of 0.80 with both capable interpretations.

It suggest that resources needed are available since most of it are covered by MOOE or Monthly Operations and other expenses procurement while lowest mean indicates that fund raising projects are not initiated because according to RA No. 5546 which is prohibition of schools on contributions and fund raising activities for any purpose or projects are not encourage.

Effective organization and management of resources are essential for a school's Disaster Risk Reduction and Management (DRRM) program. Schools plan their resources to enable them to make the right and timely decision prior to, during, and after disaster. Properly stored and labeled DRRM team resources (first aid kits, rescue tools, emergency food/water) save time looking during an emergency. They ensure that life-saving supplies such as stretchers, flashlights, fire extinguishers, and emergency radios are always available and in operating condition. Once they have inventoried and sorted, they determine what is lacking, expired, or in short supply. Authorized persons-in-charge for each type or category of resources was also similarly managed. The school nurse/ health coordinator keeps the medical supplies in stock while the DRRM focal person inspects fire safety equipment, quick response equipment's and basic items like helmets, emergency signages, or safety barricades to safeguard students and employees in various hazards. One of its inventory of capabilities was to orient and conduct drills, so all know how to access and utilize the resources. A properly managed resources facilitate the implementation of school contingency plans and emergency operations better and make the school environment a safer one.

DepEd Order No. 66, s. 2007 "Revised Guidelines on the Implementation of Projects and Activities Involving the Solicitation of Resources" says that schools may solicit donations/funds for certain school projects, including DRRM, if these are non-coercive, have a stated proposal and plan and are properly monitored and documented. Republic Act No. 10121 Philippine Disaster Risk Reduction and Management Act of 2010 mandates the allotment of resources for disaster preparedness, mitigation, response, and rehabilitation by all government offices, including schools. It also promotes mainstreaming DRRM in budgeting and development planning. While DepEd Order No. 33, s. 2021 or the Revised Guidelines on the Preparation of the School Improvement Plan (SIP) states that schools should incorporate DRRM into the SIP and Annual Implementation Plan (AIP). Highlighting the utilization of 5% of the MOOE as the minimum level to be allocated for DRRM-related activities. P. DepEd Order No. 40, s. 2012 or the Comprehensive DRRM in Basic Education Framework requires schools to create and implement

DRRM plans with provisions for funding for preparedness and response. These facilitate proactive utilization of MOOE for drills, materials, training, and recovery planning.

Table 22*Level of School Resilience in Terms of Multi-Hazard Assessment*

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. All natural hazards posing a threat to schools have been identified.	4.43	0.63	Moderately resilient
2. All risks are assessed periodically.	4.39	0.66	Moderately resilient
3. The school population and the local community are aware of the risk.	4.39	0.68	Moderately resilient
4. During a hazard event, the school serve as an evacuation shelter.	4.40	0.71	Moderately resilient
Over-all	4.40	0.67	Moderately resilient

Legend: 4.50 – 5.00 Highly resilient, 3.50 – 4.49 Moderately resilient, 2.50 – 3.49 slightly resilient, 1.50 – 2.49 Low resilient, 1.00 – 1.49 Not resilient

As indicated in table 22, it can be viewed that all natural hazards posing threat to schools have been identified got a high mean average of 4.43 with a standard deviation of 0.63 while statements 2 and 3 got a mean average of 4.39 with both with a moderately resilient verbal result. This table shows an overall result of 4.40 mean average, 0.67 standard deviation and a moderately resilient overall result.

The results inferred that identifying natural hazards that can pose threat to school have been an important priority of DRRM. Disaster risk coordinators of schools check classrooms and building to identify hazards that may inflict possible threats like signs of possible collapse, damage from debris and disruptions to essential service.

The identification of all natural hazards that threaten schools is one of the obligatory aspects of school-based disaster risk reduction and management (DRRM) planning, and it is supported at the national level by policies. The school adapts to some DepEd orders and Republic acts regarding DRRM. DepEd Order No. 33, s. 2021 "Adoption of the Multi-Year Implementing Guidelines on the Conduct of the Comprehensive School Safety (CSS) Program" legal basis for school hazard identification and risk assessment. Compels schools to evaluate natural hazards such as: earthquakes, floods, landslides, typhoons, volcanic eruptions, tsunamis and droughts. Schools are to undertake hazard mapping and risk assessment and incorporate outcomes in the School Improvement Plan (SIP) and DRRM plan. RA 10121 (Philippine DRRM Act of 2010) requires schools to be included in the local DRRM system. Encourages the application of scientific risk analyses and hazard maps of agencies such as PHIVOLCS, PAGASA, and Mines and Geosciences Bureau (MGB). DepEd Order No. 23, s. 2015 "Disaster Risk Reduction and Management Coordination and Information Management Protocol" requires schools to identify, categorize, and report hazards that may interfere with education. Supports early warning systems and data-driven preparedness plans. RA 10821 (Children's Emergency Relief and Protection Act) mandates child-centered disaster risk reduction activities.

Ensures that schools are risk-hazard assessed for threats to children's safety and learning. The school also employs hazard identification methods such as Hazard Mapping with DRRM teams, Risk Assessment Tools (which can be acquired by DepEd or provincial DRRM offices), Vulnerability Capacity Assessment (VCA), GeoHazard Maps from LGUs. Not assessing, all the schools are left ill-prepared for new or new hazards, obsolete assessments may lead to ineffective DRRM plans and unsafe learning environments. And most importantly, they were legally non-conformant with DepEd Orders and national laws (RA 10121) liable to administrative duties.

Furthermore, according to Cepal, (2017) hazard preparedness involves providing schools with the means to respond fast and efficiently to a disaster. This includes training teachers and staff members in emergency procedures, conducting regular drills and role-plays, establishing communication protocols, and

gathering needed materials. Schools can reduce the potential impacts of disasters, decrease the rate of injuries and deaths, and ensure that learning goes on even in difficult circumstances by promoting a culture of readiness.

Table 23
Level of School Resilience in Terms of Safe School Building

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	The school buildings were designed to meet building code standards.	4.33	0.74	Moderately resilient
2.	The building code provide guidance on hazard resilient design.	4.39	0.69	Moderately resilient
3.	The soil was tested before the school was built.	4.43	0.68	Moderately resilient
4.	Mechanisms are in place to ensure school maintenance is financed and executed.	4.39	0.69	Moderately resilient
5.	School furnishings and equipment are designed and installed to minimize potential harm they might cause to school occupants.	4.36	0.68	Moderately resilient
Over-all		4.38	0.69	Moderately resilient
<i>Legend: 4.50 – 5.00 Highly resilient, 3.50 – 4.49 Moderately resilient, 2.50 – 3.49 slightly resilient, 1.50 – 2.49 Low resilient, 1.00 – 1.49 Not resilient</i>				

We can gleaned from table 23 the perceived level of school resilience as to safe school building revealed that soil testing before school was built is very important that's why it gained the high mean of 4.43 and a standard deviation of 0.68.

The lowest mean of 4.33 wherein school buildings were designed to meet building code standards, implies that some school building built with sub standard materials that doesn't meet building code standard because of bidding system wherein the lowest the cost the bidder will get the project. There is no guarantee of sturdy building due to bidding system.

Soil testing prior to school building construction is a mandated legal precautionary measure, it has its basis in Philippine laws and regulations for structural safety and disaster resiliency. School administrators are mindful of these regulations so they won't construct schools on areas liable for landslides, that foundation can bear the structure, modify the foundation design accordingly, and finally for legal and safety compliance. Soil testing was closely monitored and supervised by school administrators with the help of School DRRM coordinator prior to the construction of a school building, and it is required by law by the National Building Code, DepEd infrastructure regulations, and national DRRM regulations. DepEd school heads and engineers knew about the Philippine National Building Code (PD 1096) that contains the minimum requirements for the building such as structural stability, fire resistance, sanitation, and resilience against disasters.

DepEd Order No. 72, s. 2012 and RA 9155 also prioritize school safety under the context of quality basic education. School DRRM coordinator and school administrators was assigned to maintain resiliency in infrastructure and ensure that buildings shall be designed to resist earthquakes, particularly for those located near fault lines, withstand strong winds and typhoons, especially for those in coastal and storm-exposed zones, have fire safety features (exits, alarms, extinguishers), have flood protection or elevation for low-lying areas, and shall have structural stability during and after a disaster for use as an emergency shelter if necessary. The DepEd engineers strictly enforces and implements the building code standards. It has to be Earthquake-Resistant Design application of reinforced concrete and correct beam-column connections and adherence to the National Structural Code of the Philippines (NSCP). Fire Safety Systems - fire alarms and fire extinguishers and marked and accessible exits.

It has appropriate ventilation and lighting promotes student health and safety, particularly in case of emergencies. It has Emergency Exits and Accessibility - ramps, wide doors, and signs for fast evacuation. Accessible design for students with disabilities (in accordance with BP 344 or the Law on Accessibility).

And finally, it has Hazard-Responsive Location Planning geo hazard area avoidance (e.g., slopes, fault lines, rivers) using hazard mapping by PHIVOLCS or DENR. It is also the highest responsibility of school heads, DRRM coordinators and teachers to safeguard the lives of students and personnel, minimizes physical and financial losses during disasters, makes the school able to be utilized as evacuation centers when necessary and aids in the continuity of education even after a disaster. Use of substandard materials or poor construction techniques was closely monitored and supervised.

Table 24

Level of School Resilience in Terms of School Disaster Management

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. A disaster management committee exist in the school or in the local community.	4.52	0.55	Highly resilient
2. There is a backup plan to ensure that school operations continue.	4.41	0.70	Moderately resilient
3. Your school have a disaster preparedness plan or a contingency plan.	4.50	0.67	Highly resilient
4. The school population and local community are aware of how they can reduce their vulnerability to the damaging impacts of a hazard event.	4.42	0.71	Moderately resilient
5. A safe location been identified if the school must be evacuated.	4.48	0.67	Moderately resilient
Over-all	4.46	0.66	Moderately resilient
<i>Legend: 4.50 – 5.00 Highly resilient, 3.50 – 4.49 Moderately resilient, 2.50 – 3.49 slightly resilient, 1.50 – 2.49 Low resilient, 1.00 – 1.49 Not resilient</i>			

Table 24 stated the summary of perceived by respondents in terms of school disaster management wherein disaster management committee exist in the school or in the local community got the highest mean average of 4.52 with 0.55 standard deviation. While there is a backup plan to ensure that school operations continue yield the lowest mean which is 4.41. Overall result shows 4.46 mean averages and a standard deviation of 0.66 and a moderately resilient interpretation.

The results implicate that at the level of school resilience as to school disaster management, an existence of management committee in school and in the community is very significant because it allows a smooth implementation of risk reduction plan when a disaster occur. While on the other hand low mean statement insinuated that if the plan doesn't succeed there should have a back up plan. Contingency plan at times of disaster should be consider because a plan should be flexible enough to respond in the scenarios least expected.

In case of emergency or risk, the presence of a Disaster Management Committee in a school or community increases security, readiness, and efficient response during emergencies. Teachers and employees have specific roles and coordination. They were already aware of their role during and after disasters prior to the earthquake that avoids confusion and duplication of tasks in emergencies. It ensures streamlined and coordinated action by school personnel, barangay officials, and parents. Communication system was put in place for timely and accurate sharing of information, that aids in relaying warnings and instructions to students, parents, and the community in a timely manner. The committee also monitors the development and revision of school contingency plans and coordinates emergency drills (e.g., earthquake, fire, typhoon) and conducts regular assessments. They oversee DRRM resources including first aid kits, rescue equipment, emergency rations, and water, sees to it that supplies are available, accessible, and in working condition, determines hazards and vulnerabilities through risk analysis, and suggests changes in infrastructure, design, and evacuation routes. PTA, barangay officials, and volunteer participation in disaster preparation activates everyone to construct a collective sense of accountability for school and

community safety.

There is a Disaster Management Committee within the local community under RA 10121 Philippine Disaster Risk Reduction and Management Act of 2010 that requires the establishment of Local DRRM Councils (LDRRMCs) even down to the barangay level. All barangays are required to establish a Barangay DRRM Committee, chaired by the Punong Barangay. Their functions are planning, risk assessment, education, and coordination of emergency responses.

DepEd Order No. 50, s. 2011 prescribes the "Creation of DRRM Coordinators and Committees in Schools" it calls for every public elementary and secondary school to set up their School DRRM Committee with the Chairperson – School Principal, Vice Chair – Designated DRRM Coordinator, Members: teaching and non-teaching personnels Teachers, Supreme Secondary Learners Government Officers, PTA President, Barangay Representative, School Nurse (if available), Security or utility staff. They are functions in performing risk assessment, commanding drills, planning and implementing disaster-related programs and coordination with LGUs, BFP, PNP, DOH, etc. DepEd Order No. 33, s. 2021 Institutionalizes DRRM by mandating schools for annual planning and reporting, operational DRRM teams with defined roles and capacity development of committee members.

"There is a contingency plan to provide that the operations of the school run continuously." DepEd Order No. 33, s. 2021 "Disaster Risk Reduction and Management in Basic Education Framework" urges schools to prepare Continuity of Learning Plans (CLPs) and School Contingency Plans. These guarantee that instruction and critical operations can continue even during emergencies or disasters. RA 10121 – DRRM Act of 2010 urges continuity planning among sectors, such as the education sector, to mitigate disruptions brought by disasters.

Rizal-Nagcarlan Sub-Office under the leadership of SDO Laguna has School Continuity Plan that includes Alternative Learning Approach , modular, online, or blended learning if face-to-face is suspended. Temporary learning spaces as requested and approved conducting classes in tents or other safe facilities if classrooms are destroyed, backup records and resources ,backup copies of student records, lesson plans, attendance, and school data, communication plan keeping teachers, students, and parents informed during emergencies through social media platforms, delegation of duties delegating backup staff if main staff are not available, and academic calendar adjustments flexibility to adjust schedules or add time even Saturdays.

In addition, in a bid to offer specific direction in the fulfillment of DepEd and National DRRM Council's priorities, principles of the Comprehensive School Safety (CSS) Framework are taken to guarantee complimentary of DRRM interventions for basic education. The three pillars of CSS, that is, Safe Learning Facilities, School Disaster Management, and DRR in Education are used to categorize DRRM interventions. The framework's goals are focused on safeguarding the learners and teachers, contingency planning, safeguarding schools, and enhancing disaster prevention and resilience through information dissemination (DO 37, s. 2015). Being that disasters cannot be avoided, disaster preparedness can minimize its impact on school, teachers and students.

School DRRM coordinators are key in this structure, coordinating preparedness for disasters, responding to disasters, and recovering from them. They are responsible for the major task of coordinating communication, conducting risk identification, and conducting multi-hazard drills. DepEd Order No. 21, Series of 2015, defines their roles, stressing the need for coordination to reduce disaster impact.

Table 25*Level of School Resilience in Terms of Risk Reduction and Resilience Education*

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. Students, teachers, staff, and school administrators know what to do before, during and after a hazard event.	4.50	0.59	Highly resilient
2. DRRM instructional materials and educational resources available to all students and teachers.	4.25	0.89	Moderately resilient
3. Drills are conducted in your school.	4.51	0.78	Highly resilient
4. There are activities conducted outside the classroom setting to promote disaster preparedness and awareness.	4.48	0.63	Moderately resilient
5. DRRM is integrated in your school's curriculum.	4.45	0.71	Moderately resilient
Over-all	4.44	0.73	Moderately resilient

Legend: 4.50 – 5.00 *Highly resilient*, 3.50 – 4.49 *Moderately resilient*, 2.50 – 3.49 *slightly resilient*, 1.50 – 2.49 *Low resilient*, 1.00 – 1.49 *Not resilient*

Based on the data presented in the table, level of school resilience as to risk reduction and resilience education the indicator with high mean score of 4.51 with a standard deviation of 0.78 indicates that drills are conducted in school are rated as highly resilient by respondents. While the lowest indicators statement number 2 which is DRRM instructional materials and educational resources available to all students and teachers with 4.25 mean score with moderately resilient verbal interpretation.

The results assert that drills are conducted in Rizal and Nagcarlan District every quarter to ensure that teachers and students are practicing risk reduction plan for enhancing preparedness, improving response time, identify weaknesses in plan, refine procedures and promote teamwork and communication. Lowest mean result on the other hand professed that DRRM committee should create instructional materials that are available to students and teachers to serve as a guide in following risk reduction plan. It yields a low mean because educational resources about disaster risk management and awareness are inconsequential since they are focused on macro subject matters and other school related activities.

Drills are being held in schools, and this is being required by the Department of Education (DepEd) as part of disaster preparedness under its DRRM program. DepEd Order No. 33, s. 2021 "Disaster Risk Reduction and Management in Basic Education Framework" mandates that regular emergency drills are to be held in schools, especially for earthquakes, fire, flood, lock down in the event of armed conflict or security threats (if relevant). DepEd Order No. 48, s. 2012 "Conduct of the Quarterly Nationwide Simultaneous Earthquake Drill" requires all private and public schools to join the Quarterly National Earthquake Drills (NSED) conducted by NDRRMC. School drills earthquake drill "Duck, Cover, and Hold" and evacuation, fire drill safe exit procedure and use of extinguishers, flood drill school lockdown or movement to higher ground, security drill for armed assault.

Rizal – Nagcarlan Sub-Office Schools Conduct quarterly or minimum 3 times a year drills, Coordinate with barangay DRRM units, PNP, or BFP, hold post-drill assessments to determine improvement areas, Involve students with disabilities in planning and implementation. It is helpful to avoid chaos and harm during actual events, enable students and personnel to react promptly, enhances DRRM team coordination and enable schools to enhance response plans.

Table 26*Level of Compliance in Terms of Enabling Environment*

Indicators		Mean	Std. Deviation	Verbal Interpretation
1.	The school adopts existing policies relating to DRRM in education/school safety.	4.55	0.59	V ery much compliant
2.	The school designates School DRRM focal person	4.61	0.57	V ery much compliant
3.	The school forms School DRRM Team, consisting of personnel from different offices; with defined membership and roles and responsibilities/functions	4.58	0.59	V ery much compliant
4.	The school integrates DRRM into the School Improvement Plan (SIP)	4.66	0.57	V ery much compliant
5.	The school has a comprehensive School DRRM Plan, which includes Climate Change Adaptation (CCA) and Education in Emergencies (EiE) measures, covering risk assessment, risk reduction, and rehabilitation and recovery	4.55	0.61	V ery much compliant
6.	The school conducts regular DRRM activities supported by school budget	4.57	0.63	V ery much compliant
7.	The school has partnerships that could be tapped to support its DRRM programs and activities, including those after a disaster	4.58	0.59	V ery much compliant
8.	The school conducts student-led school watching and hazard mapping (DO 23 s 2015)	4.51	0.61	V ery much compliant
9.	The school submits Rapid Assessment of Damage Report (RADAR) to the DRRMS Central Office, within 72 hours after the onslaught of a hazard in the area.	4.58	0.60	V ery much compliant
10.	The school executes data collection and consolidation of programs and activities on DRRM, covering the safe learning facilities, disaster risk management, and risk reduction and resilience education, to monitor results and impact exist.	4.53	0.62	V ery much compliant
Over-all		4.57	0.60	V ery much compliant

Legend: 4.50 – 5.00 V ery much compliant, 3.50 – 4.49 Much compliant, 2.50 – 3.49, Moderately compliant , 1.50 - 2.49 Slightly compliant, 1.00 – 1.49 Not at all compliant

It shown on the table the level of compliance in terms of enabling environment wherein school integrates DRRM into the School Improvement Plan (SIP) at the highest mean of 4.66 with a standard deviation of 0.57. It affirms that a comprehensive School Disaster Risk Reduction and Management (SDRRM) Implementation Plan included in School Improvement Plan (SIP) which is evidence based, results- oriented and focuses on learners . It provides specific interventions for schools to reach the goal of providing quality education. Integration of DRRM program to SIP includes forming a school-based SDRRM team, conducting hazard and vulnerability assessments, developing an emergency response plan , integrating disaster risk reduction into the curriculum, conducting drills and implementing safety measures like first aid training and safe building practices . The plan focus on raising awareness through staff training and student programs . Through this it can significantly enhance their resilience to disasters and ensure the safety and well -being of their students and staff.

Department of Education (DepEd) Order No. 23, series of 2015, titled “Student-Led School Watching and Hazard Mapping” in the Philippines which is in indicator number 8 got the lowest mean of 4.51, which indicates that most of the school doesn’t not adhere on this D. O. memo since DRRM school committee take the full responsibility in multi hazard assessment.

This DepEd Order requires schools to carry out student-led activities to map out hazards in and around the school environment. This is intended to enhance disaster risk reduction (DRR) by engaging students directly in, conducting field observations of the physical condition of the school, mapping out potential areas of risks (such as flood-prone areas, unsafe structures, or fire hazards) and suggesting solutions or preventive measures.

Schools are mandated to make Disaster Risk Reduction and Management (DRRM) a part of their School Improvement Plan (SIP) and this is firmly backed by DepEd policy. DepEd Order No. 44, s. 2015 “Guidelines on the Enhanced School Improvement Planning (SIP) Process” DRRM is an obligatory element under the Physical and Learning Environment key result area. Schools are mandated to determine DRRM needs, gaps, and planned actions in the 3-year SIP. DepEd Order No. 33, s. 2021 “DRRM Framework in Basic Education” Mandates schools to incorporate DRRM in planning, budgeting, and implementation processes, including the SIP and Annual Improvement Plan (AIP). Rizal-Nagcarlan Sub-Office are able to implement the DRRM Integration in the School Improvement Plan through carrying out risk and hazard identification, including emergency drills in annual programs, suggesting structural retrofitting or repair, putting up early warning devices and signage, purchasing emergency kits, equipment’s and radios, conducting orientation and training for staff/students and creating a Continuity of Learning Plan.

DRRM should be maximized in the SIP as it encourages safety and preparedness diminishes hurt and damage during danger, secures funding for DRRM requirements are part of budget plans, institutionalizes emergency teams roles are well defined and documented, and directs infrastructure priorities resilient structures receive priority. The school implements student-led school watching and hazard mapping, which is highly encouraged and supported by DepEd policies under its DRRM programs.

DepEd Order No. 33, s. 2021 “Disaster Risk Reduction and Management (DRRM) in Basic Education Framework” Promotes learner-centered and participatory practices in facilitating disaster awareness and preparedness. Suggests school watching, hazard mapping, and risk assessments to engage students and enhance students’ comprehension of hazards. During the school observing students note and evaluate the school setting to determine unsafe conditions, hazardous structures, and possible hazards (e.g., slippery steps, obstructed exits, dangerous wiring), while during hazard mapping students draw visual maps indicating hazardous sites within and near the school, such as fire zones, flood zones, earthquake zones, cluttered exit pathways. It Boosts awareness on disaster students become proactive and vigilant, enhances safety and preparedness hazards are detected and lessened, supports student participation wherein learners become owners of school safety, contributes to SIP and AIP hazard maps guide planning and budgeting.

Rizal-Nagcarlan district boasts its best practices in the implementation of school student-initiated watching and hazard mapping. They hold orientation/training prior to the activity, they integrate learners with disabilities and student leader, utilize mapping templates and drawing tools for easy marking of locations, update maps once a year or upon any structural changes, upon observation and marking of hazards, students present their reports to the School DRRM Committee. The products were Hazard Map displayed in classrooms, bulletin boards, and strategic areas of the school.

To this, as support, schools may ensure students are safe, as proposed by Mahlapahlapana et al. (2014), by ensuring they have a respectful, caring, and supportive environment, where students are both safe from physical as well as emotional toxicities (e.g., bullying, and prejudice), and supported by community ties to caring teachers and students.

Table 27
Level of Compliance in Terms of Safe Learning Facilities

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. The school buildings are inventoried.	4.46	0.63	Much compliant
2. The school conducts buildings' risk assessment.	4.47	0.65	Much compliant
3. The school conducts regular inspection and maintenance of facilities.	4.49	0.64	Much compliant
4. The school undertakes regular repair of minor classroom (including facilities) damages.	4.46	0.68	Much compliant
5. Systems for monitoring and quality assurance of school building construction exist.	4.49	0.64	Much compliant
6. Financial resources are allocated for completion of needed action to address unsafe school buildings within a specified period.	4.45	0.71	Much compliant
7. The school's roles and responsibilities for maintenance are defined, documented and assigned.	4.50	0.65	Very much compliant
8. School heads allocate budget for routine maintenance of school facilities for safety and to protect investments, with transparent monitoring oversight at the school level.	4.50	0.67	Very much compliant
9. School heads identify those rooms that are expected to be used as temporary evacuation centers for disasters.	4.50	0.67	Very much compliant
10. School has coordinated with the local government on creating/maintaining a functional drainage system.	4.51	0.66	Very much compliant
Over-all	4.48	0.66	Much compliant

Legend: 4.50 – 5.00 Very much compliant, 3.50 – 4.49 Much compliant, 2.50 – 3.49, Moderately compliant, 1.50 – 2.49 Slightly compliant, 1.00 – 1.49 Not at all compliant

Table 27 stated the summary of perceived by respondents in terms of safe learning facilities wherein school has coordinated with the local government on creating/maintaining a functional drainage system got the highest mean average of 4.51 with 0.66 standard deviation. It implies that coordination between schools and the local government on creating or maintaining a functional drainage system plays a crucial role in ensuring school safety and disaster risk reduction, especially during heavy rains or typhoons. Coordination in our barangays specifically in Rizal and Nagcarlan area promotes collaboration which reduces flooding risks in and around the school, helps prevent waterborne diseases, supports the school's disaster preparedness efforts, in line with DepEd policies like DO 23, s. 2015 and DO 21, s. 2015 (Disaster Risk Reduction and Management) and encourages community involvement and shared responsibility.

While financial resources are allocated for completion of needed action to address unsafe school buildings within a specified period yield the lowest mean which is 4.45. It indicates that although school has allocated financial resources for the timely repair and rehabilitation of identified unsafe school buildings it is not enough due to some prioritization of the procurement in MOOE. This initiative,

supported by the School DRRM Plan and in coordination with the LGU, aims to complete the necessary actions within a certain school year ensuring a safe learning environment for all students and staff.

Overall result shows 4.48 mean averages and a standard deviation of 0.66 and much compliant interpretation.

Schools are also urged to coordinate with the Local Government Unit (LGU) in establishing or enhancing an operational drainage system in order to counteract flooding and enhance disaster resilience. This is consistent with DepEd's DRRM objectives enumerated in DepEd Order No. 33, s. 2021 DRRM in Basic Education Framework that urges schools to work together with LGUs, barangay DRRM committees, and other stakeholders for school safety undertakings, such as environmental risk reduction such as drainage. It is also provided in Republic Act No. 10121 or the Philippine DRRM Act of 2010 that encourages multi-sectoral and inter-agency coordination in minimizing disaster risks, as well as infrastructure-related risks like poor drainage. Schools in Rizal-Nagcarlan Sub-Office jointly performs site inspections with LGU engineers and barangay officials on poor drainage system, they ask for technical assistance and funding for repairs and upgrading and check drainage periodically and report to the barangay or DPWH.

School administrators incorporate drainage system requirements in the School Improvement Plan (SIP). Appropriations must be made to respond to dangerous school buildings, and this must be accomplished within a timeframe as part of the school DRRM and infrastructure development planning. These were supplemented by DepEd and national policies in Republic Act No. 9155 (Governance of Basic Education Act of 2001) which gives school heads the power to administer resources, such as maintaining safety within infrastructure and through DepEd Order No. 33, s. 2021 or the Disaster Risk Reduction and Management in Basic Education Framework which mandates the incorporation of DRRM-related needs for infrastructure into school planning and budgeting.

DepEd Order No. 44, s. 2015 titled enhanced School Improvement Plan (SIP) Guidelines, infrastructure enhancements, such as resolving unsafe school buildings, shall be among the 3-year SIP and also given priority in the Annual Implementation Plan (AIP). Schools in the Rizal-Nagcarlan Sub-Office conduct structural evaluation with the LGU or DepEd engineers and place unsafe buildings under the SIP priority projects. They also propose for LGU assistance and identify school partners through adopt-a-school program.

Furthermore, based on DepEd Order 37 s 2015, safe learning facilities refers to the physical and other related structures of the schools. It also includes the establishment of temporary learning spaces that can be used during possible displacement brought by disasters and/or emergencies. Here, education authorities, architects, engineers, builders and school community members undertake safe site selection, design, construction, and maintenance of school structures and ensure safe and continuous access to the facility.

Table 28
Level of Compliance in Terms of Risk Reduction Management

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. The school has a Contingency Plan which can turn into response actions when a disaster strikes.	4.42	0.63	Much compliant
2. The school has available, accessible, and adequate first aid kit in every classroom.	4.36	0.73	Much compliant
3. The school has at least 2 necessary and functioning equipment, in case of a disaster (e.g. fire extinguisher, handheld/base radio, generator, etc.).	4.43	0.63	Much compliant
4. The school has ready resumption strategies and alternative delivery modes to ensure education continuity.	4.48	0.63	Much compliant
5. The school establishes a school personnel tracking system/protocol in the event of a disaster.	4.45	0.67	Much compliant
6. The school has trained personnel to administer first aid to students and personnel.	4.52	0.61	Very much compliant
7. The school has DRRM Plan and SIP with DRRM integration which are reviewed annually.	4.46	0.61	Much compliant
8. The school participates in the different DRRM activities of the LGU.	4.47	0.59	Much compliant
9. The school establishes functional early warning system to inform students and personnel of hazards and emergencies (protocol, warning signs, devices), considering national and LGU warning systems and protocols.	4.44	0.65	Much compliant
10. The school conducts regular hazard-specific drills (at least 3 hazards) with participation of stakeholders (BFP, Medic, LGUs, NGOs, community, PTA, alumni, and others).	4.45	0.61	Much compliant
Over-all	4.45	0.64	Much compliant

Legend: 4.50 – 5.00 Very much compliant, 3.50 – 4.49 Much compliant, 2.50 – 3.49, Moderately compliant, 1.50 – 2.49 Slightly compliant, 1.00 – 1.49 Not at all compliant

It shown on the table the level of compliance in terms of risk reduction management wherein the school has trained personnel to administer first aid to students and personnel at the highest mean of 4.52 with a standard deviation of 0.61. It affirms that the school has designated and trained select teaching and non-teaching personnel to administer first aid in case of emergencies. These individuals have undergone certified training in basic life support and first aid procedures, and are equipped to respond to health-related incidents involving students and staff. While the school has available, accessible, and adequate first aid kit in every classroom got the lowest mean at 4.36 with a standard deviation of 0.73, implies that respondents are not having a complete supplies of emergency kit in the classrooms because not all the needed kits are procured in the 5% MOOE.

Schools must employ trained personnel who can provide first aid to students and employees in cases of emergencies. This is both a DepEd policy and part of normal school safety procedures. DepEd Order No. 33, s. 2021 Disaster Risk Reduction and Management (DRRM) in Basic Education Framework

requires schools to ensure the readiness of emergency response teams, including First Aid responders. DepEd Order No. 55, s. 2007 prioritizing the learners' health and emergency needs advises that school personnel and teachers receive training in First Aid, particularly during activities and emergency situations. Republic Act No. 10871 Basic Life Support Training in Schools Act mandates public and private schools to give Basic Life Support (BLS) training, such as CPR and First Aid, to both students and staff. First Aid training in schools is vital for prompt treatment for hurt students, prevention of injury or condition aggravation, enhances safety and DRRM plans in schools to guarantee safety response before assistance is received, avoids panic and enhances coordination and prevents liabilities and ensures readiness. Rizal-Nagcarlan Sub-Office schools sets up partnership with the Red Cross, LGU Health Office and MDRRM for training, keeps a current list of First Aid responders, has available and regularly inspected First Aid kits in all classrooms and strategic locations, and undergoes refresher training when necessary.

According to DRRM's underlying concept is consistent with the prevailing global DRR agenda. During UN World Disaster Reduction Campaign (2000), disaster reduction, education, and the youth were introduced (UN, 2000). The 2015-2030 Sendai Framework for Disaster Risk Reduction, with its focus on the "application of information, innovation, and education to enhance a culture of safety and resilience at all levels," has prioritized this as part of its agenda (UNISDR, 2005).

In affirmation of this ,Domingo (2017) further mentioned that the passage of the National Disaster Risk Reduction Management Act of 2010 (RA 10121) and the Climate Change Act of 2009 (RA 9729), and the ratification of the Paris Climate Agreement (2015), the Sendai Framework for Disaster Risk Reduction, and the Hyogo Framework for Disaster Resilience (2005-2015) have "augmented and reinvigorated efforts toward disaster resiliency among sectoral stakeholders and local communities" (p. 3). He emphasized the importance of policy studies related to DRRM in his research.

Table 29

Level of Compliance in Terms of Risk Reduction in Education

Indicators	Mean	Std. Deviation	Verbal Interpretation
1. The school integrates key DRR and CCA concepts in the curriculum based on the National Curriculum Guide.	4.40	0.57	Much compliant
2. The school identifies the grade levels and subjects where Disaster Risk Reduction and Climate Change Adaptation are integrated.	4.40	0.61	Much compliant
3. The school assesses the skills and competencies of students through measurable learning and risk reduction (RR) outcomes.	4.39	0.66	Much compliant
4. The school records the percentage of students actively participating in various DRRM activities.	4.43	0.66	Much compliant
5. The school has a DRRM capacity building plan for teachers and school personnel.	4.45	0.63	Much compliant
6. The school has number of personnel trained on DRRM.	4.36	0.67	Much compliant
7. The school has available and accessible quality and up-to date DRRM materials.	4.38	0.64	Much compliant
8. The school has DRRM corner, with updated Information, Education and Communication (IEC) materials posted in it, in every classroom.	4.42	0.65	Much compliant
9. The school carries out monitoring and evaluation to assess sustainable implementation.	4.39	0.64	Much compliant
Over-all	4.40	0.64	Much compliant

Legend: 4.50 – 5.00 Very much compliant, 3.50 – 4.49 Much compliant, 2.50 – 3.49, Moderately compliant, 1.50 – 2.49 Slightly compliant, 1.00 – 1.49 Not at all compliant

Based on the data presented in the table, level of compliance as to risk reduction in education the indicator with high mean score of 4.45 with a standard deviation of 0.63 indicates that the school has a DRRM capacity building plan for teachers and school personnel.

While the lowest statement which is school has number of personnel trained on DRRM with 4.36 mean score with much compliant verbal interpretation.

The results assert that the school has established a DRRM Capacity Building Plan for all teaching and non-teaching personnel, aimed at enhancing disaster preparedness and response competencies. The plan includes regular training sessions, drills, and workshops facilitated by accredited agencies and integrated into the school's Annual Implementation Plan.

On the other hand, lowest mean statement indicates that as of last year, each school has a total of one personnel trained on Disaster Risk Reduction and Management, including members of the School DRRM Team, first aiders, and emergency responders. These personnel have undergone certified training in key areas such as first aid, emergency response, and disaster preparedness through partnerships with the LGU, Red Cross, and other accredited agencies. A rough estimate of 5% for five schools in Rizal and Nagcarlan District is a small number to cover the whole population during a disaster.

There is a requirement for the school to have a DRRM Capacity Building Plan for school staff and teachers. This is to improve preparedness, response, and recovery capacity in times of emergencies. DepEd Order No. 33, s. 2021 DRRM in Basic Education Framework mandates the establishment and implementation of capacity building programs to enhance school staff's skills in DRRM. Republic Act No. 10121 Philippine Disaster Risk Reduction and Management Act of 2010 requires education, training, and capacity-building at various levels, including schools.). DRRM Capacity Building Plan of Rizal-Nagcarlan Sub-office consist of determining what DRRM competencies teachers/staff need to acquire (Basic First Aid and CPR, Earthquake and Fire Evacuation Drill, Search and Rescue Fundamentals, Psychological First Aid, Emergency Communication Protocol, Hazard Mapping and School Watching, Incident Command System (ICS).

Resource speakers and stakeholders will be sought from LGU DRRM Office, BFP, Red Cross, DOH and NGOs. This is also a practice of DepEd school heads under DepEd DRRM Manual (2018), to include the capacity-building plan in the School DRRM Plan and Annual Procurement Plan (APP) and synchronize training activities with the Division DRRM Coordinator, Provincial DRRM Office and other concerned agencies. This shortage of school staff trained in Disaster Risk Reduction and Management (DRRM) indicates a serious gap in schools' disaster preparedness and response capacity. The division of school Laguna through its DRRM program development officer conducts trainings to all the school DRRM coordinators and School heads. Trained staff were assigned to train others working in their corresponding sub-office and stations for a sustainable internal training mechanism. It is also maximized to engage and involve external partners to work as resource persons or facilitators for seminars at the school level, such as LGU DRRM offices, Red Cross, BFP, or NGOs.

Risk reduction in education focuses on minimizing the potential dangers that affect students, teachers, and educational institutions, both during and outside of emergency situations. It includes proactive measures to mitigate risks, build resilience, and ensure continuity of learning in the face of disasters, hazards, or other risks. It's an essential component of Disaster Risk Reduction and Management (DRRM) that prioritizes the safety and well-being of students, staff, and school communities while ensuring that education systems remain functional and adaptive in the face of risks.

Based on DepEd Order 37 s 2015, this refers to the integration of DRRM in the formal and non-formal school curricula and in extracurricular activities. It should also provide the necessary material support. These covers building the capacity and skills of learners and personnel, particularly teachers (SDRRM Manual Book #1).

Table 30*Relationship Between Readiness and School Resilience*

Variables	Multi-hazard Assessment	Safe School Building	School Disaster Management	Risk Reduction and Resilience Education
Prevention and Mitigation	0.638**	0.663**	0.622**	0.684**
Preparedness	0.632**	0.646**	0.646**	0.673**
Disaster Response	0.686**	0.641**	0.725**	0.620**
Disaster Recovery and Rehabilitation	0.603**	0.635**	0.633**	0.579**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The data presented in the table demonstrates a significant correlation between readiness and school resilience across multiple dimensions. All relationships shown are statistically significant, with most achieving significance at the 0.01 level (two-tailed), indicating robust and reliable associations.

From the table, the correlation between readiness and school resilience is positive and strong in all dimensions. All the readiness components—Prevention and Mitigation, Preparedness, Disaster Response, and Disaster Recovery and Rehabilitation—have statistically significant positive correlations (at the 0.01 level) with all school resilience aspects: Multi-hazard Assessment, Safe School Building, School Disaster Management, and Risk Reduction and Resilience Education. All the values are positive and significant at the 0.01 level (shown by *), indicating that there exists a strong, positive, and consistent relationship among readiness and school resilience dimensions. The highest correlation exists between Disaster Response and School Disaster Management ($r = 0.725^*$), which indicates that a school's ability to respond to disaster is most related to the ability of the school to manage disaster activities. The strongest overall correlation to readiness dimensions is in Risk Reduction and Resilience Education with all values above 0.57, showing its strong connection to all dimensions of readiness. The lowest correlation is between Disaster Recovery and Rehabilitation and Risk Reduction and Resilience Education ($r = 0.579^{**}$), though even this is a moderately strong positive relationship.

The evidence evidently suggests that enhancing readiness in schools by a significant degree augments their resilience in various areas. This highlights the need for integrative readiness planning that involves prevention, preparedness, response, and recovery in the development of resilient schools. The evidence unmistakably establishes that integrative readiness planning is not discretionary but essential. By taking on all four steps of disaster risk management, schools are able to safeguard lives more effectively, minimize losses, and ensure continuity in education. Such a resilience means that schools are not only able to withstand emergencies but also bounce back rapidly and remain safe havens for learning and development. It is not only feasible but also necessary to build resilient schools through thorough preparation planning, particularly in the context of rising natural and man-made threats. Comprehensive readiness planning integrates the four major phases that are prevention, preparedness, response, and recovery into school systems, policies, infrastructure, and culture. This is facilitated by strategic integration, stakeholder collaboration, and long-term investment. If schools deal with prevention, preparedness, response, and recovery as a continuum, they not only save lives but provide continuity of education, enhance psychological well-being, and create a safety and resilience culture that extends long after the crisis has passed.

These can be achieved through policy support governments and education authorities need to make disaster risk reduction a priority in national education policies, investment in funding and resources in infrastructure, training, and emergency supplies is essential, capacity building a constant professional development of educators and administrators for disaster management, and community and stakeholder

involvement involving parents, local governments, and NGOs creates ownership and wider support.

Disaster response consistently show stronger positive correlations on school readiness than other variables. Specifically, the Multi Hazard Assessment, (0.686**), Safe school building (0.641**), School Disaster Management (0.725**) and Risk Reduction and Resilience Education (0.620**) demonstrate the strongest associations with school resilience. This suggests that disaster response in school resilience enable schools to prepare, respond, and recover from emergencies or disasters while ensuring the continuity of education and safeguarding the physical and emotional well-being of students, teachers, and staff. Building resilience in schools requires a proactive approach that integrates disaster preparedness, effective response strategies, and rapid recovery methods. Resilient schools are better equipped to handle disasters and can quickly return to normal functioning, allowing education to continue even in the face of adversity.

Disaster Recovery and Rehabilitation manifest a weaker associations among variables because it entails a critical phases in the overall disaster management process, focusing on restoring normalcy and rebuilding communities after a disaster has occurred. These phases aim not only to repair the physical infrastructure but also to address the emotional, economic, and social impacts of the disaster, ultimately fostering resilience and long-term development.

Table 31

Relationship Between Capabilities and School Resilience

variables	Multi-hazard Assessment	Safe School Building	School Disaster Management	Risk Reduction and Resilience Education
Objectives of the Program	0.728**	0.545**	0.698**	0.616**
School Emergency Management Plan	0.742**	0.525**	0.673**	0.605**
Organization and Management	0.783**	0.619**	0.730**	0.649**
Communication Network	0.774**	0.657**	0.725**	0.720**
Emergency Management Protocols	0.749**	0.560**	0.687**	0.663**
School Emergency Action	0.767**	0.563**	0.689**	0.657**
Manpower Development and Training	0.727**	0.593**	0.660**	0.620**
Development and Training Need	0.761**	0.616**	0.711**	0.693**
Equipment and Facilities	0.798**	0.710**	0.728**	0.676**
Financial Resources and Capabilities	0.709**	0.704**	0.630**	0.594**

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 31 summarizes the result of the correlation analysis between capabilities and school resilience. It can be gleaned from the table that capabilities functions in terms of equipment and facilities have significant relationship to school resilience variables.

Based on table, there is a strong and statistically significant positive correlation (all at the 0.01 level) between various school capability factors and key dimensions of school resilience. Each capability variable—such as emergency plans, communication systems, training, and resources—shows a positive relationship with school resilience indicators, including Multi-hazard Assessment, Safe School Building, School Disaster Management, Risk Reduction and Resilience Education. This indicates that while schools build up their capacity in-house, their capacity to bounce back in all respects also is significantly enhanced. Facilities and Equipment exhibit the highest association with Multi-hazard Assessment ($r = 0.798^{**}$) and Safe School Building ($r = 0.710^{**}$), emphasizing that physical infrastructure and equipment play an

important role in evaluating risks and physical safety.

Communication Network is significantly related to Risk Reduction and Resilience Education ($r = 0.720^{**}$) and Multi-hazard Assessment ($r = 0.774^{**}$), showing that good communication systems are crucial in preparedness and awareness. Organization and Management and Development and Training Need also have high relationships with several resilience aspects, particularly with Multi-hazard Assessment and School Disaster Management. All but one of the capability variables have lower correlation with Safe School Building (e.g., $r = 0.525^{**}$ for School Emergency Management Plan), perhaps due to the fact that physical infrastructure enhancements rely on outside resources or future planning.

All values, however, remain in the strong to moderate range, and all are statistically significant, which ensures that even these factors contribute meaningfully to the impact. The evidence unmistakably shows that school capabilities directly affect their degree of resilience. In particular:

Schools with clear programs, emergency procedures, training, communications systems, equipment, and budgeting are more capable of evaluating a hazard, responding to a crisis, and teaching their communities about disaster risk reduction. Among all the resilience factors, Multi-hazard Assessment has the strongest overall correlation with school capacities, highlighting its dependence on good planning, tools, and people. Hence, spending on school capacities particularly in equipment, communication networks, organizational systems, and training of staff is the key to developing disaster-resilient schools. Equipment and Facilities and Organization and Management are the most cross-cutting influential capability factors, with strong correlations in all four resilience dimensions. Communication Network is also a key factor particularly in education and disaster management indicating the necessity of information flow as well as clarity in making schools resilient. Capability factors in human resource and training (i.e., Manpower Development, Training Needs) have moderately high correlations, highlighting the need to develop inner skills and preparedness culture.

Financial Resources, albeit relatively lower in certain areas, are nevertheless critical particularly for enhancing infrastructure and procuring required equipment. The information obviously corroborates the notion that school resilience is heavily impacted by internal capabilities. From strategic planning and procedures to communications networks, resources, and infrastructure, every element of capability plays a contributing role towards a school's capacity to resist, react to, and rebound from catastrophes. Investments in communications systems, leadership frameworks, equipment, and training are not only operational imperatives they are essential to the creation of safer, more resilient learning environments.

Strongest variable of Resilience which is Equipment and Facilities leads for Multi-hazard Assessment (0.798) and Safe School Building (0.710). While Organization and Management and Communication Network are also very strong (≥ 0.77) in assessing hazards and managing disasters.

Weakest associations on capabilities correlate least with Safe School Building (average 0.609), notably the School Emergency Management Plan (0.525). Financial Resources and Capabilities show the weakest association to Risk Reduction & Resilience Education (0.594). Dimension averages Multi-hazard Assessment is most sensitive to capability improvements (0.7538).

Safe School Building is the hardest to influence through capabilities alone. Putting it all together Resilience and Policy Compliance, the Multi-hazard Assessment dimension (0.7538) is even more strongly driven by capabilities than any single policy-compliance dimension. Conversely, Safe Learning Facilities in the policy tables (avg 0.6406) and Safe School Building here both lag behind — infrastructure-focused outcomes seem generally harder to shift.

Equipment and Facilities upgrades deliver the biggest “bang for your buck” across assessment, management, and teaching resilience. Organizational structures (management, communication networks) are next in line. Emergency Plans and Financial Resources need bolstering if you want to see improvements in the weakest areas

Table 32*Relationship Between Readiness and Policy Compliance*

variables	Enabling Environment	Safe Learning Facilities	Risk Reduction Management	Risk Reduction in Education
Prevention and Mitigation	0.664**	0.672**	0.717**	0.680**
Preparedness	0.663**	0.677**	0.665**	0.643**
Disaster Response	0.706**	0.684**	0.711**	0.617**
Disaster Recovery and Rehabilitation	0.662**	0.685**	0.668**	0.632**

**, Correlation is significant at the 0.01 level (2-tailed).

*, Correlation is significant at the 0.05 level (2-tailed).

The result of the correlation analysis between the readiness and policy compliance is depicted in Table 32. We can gleaned on the table that Risk Reduction Management is the highest among policy compliance variables indicates that DRMM readiness significantly have a strongest correlation when it comes risk reduction management since it is the main goal of the program. While on the other risk Reduction in Education have the weaker correlation according to the summarized respondents results that implies that school should integrate risk reduction in the curriculum and promotes more student- led activities that promotes risk reduction management.

All correlation coefficients are statistically significant at the 0.01 level, reflecting strong, consistent relationships. Enabling Environment correlations from 0.662 to 0.706, the highest correlation is with Disaster Response ($r = 0.706^{**}$), which reflects that schools having good response systems are likely to more faithfully implement policies in support of an enabling environment that is comprehensive (e.g., governance structures, laws, roles of institutions). All dimensions of readiness indicate relatively equal and robust influence, indicating an even contribution to facilitating policy frameworks. Correlations for Safe Learning Facilities are between 0.672 and 0.685 with the strongest connection to Disaster Recovery and Rehabilitation ($r = 0.685^{**}$) and Disaster Response ($r = 0.684^{**}$). This implies that adherence to school infrastructure safety policies is closely related to a school's capacity for recovering and responding from disasters, as well as how and when they rebuild and retrofit. Risk Reduction Management this area demonstrates the greatest correlations overall, particularly, Prevention and Mitigation ($r = 0.717^{**}$), Disaster Response ($r = 0.711^{**}$), these figures suggest that schools with effective advance planning and solid emergency response measures are significantly more adherent to management-related DRR (Disaster Risk Reduction) policies, like having DRRM plans, coordinating groups, and risk analysis. Risk Reduction in Education correlations are from 0.617 to 0.680, slightly weaker but still highly significant.

The strongest relationship is with Prevention and Mitigation ($r = 0.680^{**}$), which indicates that inclusion of DRR in the curriculum and school events is strongly related to the extent to which schools participate in risk avoidance measures. This also illustrates the need for education as a means of building long-term resilience. Disaster Response maintains very high correlations in all areas of policy compliance, particularly with Enabling Environment ($r = 0.706^{**}$) and Risk Reduction Management ($r = 0.711^{**}$), and indicates that the management of emergencies in schools is a very robust predictor of overall policy compliance.

Prevention and Mitigation has the strongest correlation with Risk Reduction Management and Education, which means that education-based initiatives and proactive measures go hand in hand. Preparedness and Recovery also have strong associations, where each stage of readiness contributes to policy compliance, but some have stronger correlations with certain areas. A positive and evident correlation between school readiness and policy compliance is revealed by the results. Each of readiness prevention, preparedness, response, and recovery plays an important role in making a school stronger in

fulfilling disaster risk reduction policies. Of them, Disaster Response and Prevention & Mitigation seem the most powerful, particularly for operating environments and risk management frameworks.

This means enhancing readiness not only has a positive impact on instant security but also is crucial to policy responsibilities being met, with schools running within effective, government-biased DRR systems. The evidence strongly shows that all elements of readiness prevention, preparedness, response, and recovery are highly linked to central elements of policy compliance, such as the enabling environment, safe learning infrastructure, risk reduction management, and risk reduction education.

This implies that schools that work actively on measures of readiness are better able to conform to national and institutional disaster risk reduction (DRR) policies. Enhancing readiness positions schools to respond effectively to emergencies, but as important, it builds safety habits into their culture, complies with standards, and fosters a resilient mindset. Therefore, planning for readiness becomes a defensive and strategic instrument for implementing policy within the education sector.

To complement this, Domingo (2017) added that the passage of the National Disaster Risk Reduction Management Act of 2010 (RA 10121) and the Climate Change Act of 2009 (RA 9729) and the ratification of the Paris Climate Agreement (2015), Sendai Framework for Disaster Risk Reduction, and the Hyogo Framework for Disaster Resilience (2005-2015) have "augmented and reinvigorated efforts toward disaster resiliency among sectoral stakeholders and local communities".

Although there is a requirement in the integration of risk reduction in education, D.O. 37 s. 2015 declared that for the safety of the school children when it comes to disaster, the disaster risk reduction and management were made stronger in the school system and thereby, it became a safer place.

Table 33

Relationship Between Capabilities and Policy Compliance

variables	Enabling Environment	Safe Learning Facilities	Risk Reduction Management	Risk Reduction in Education
Objectives of the Program	0.617**	0.581**	0.698**	0.603**
School Emergency Management Plan	0.540**	0.490*	0.649**	0.558**
Organization and Management	0.671**	0.635**	0.730**	0.646**
Communication Network	0.727**	0.696**	0.748**	0.712**
Emergency Management Protocols	0.688**	0.615**	0.755**	0.687**
School Emergency Action	0.676**	0.615**	0.741**	0.684**
Manpower Development and Training	0.710**	0.691**	0.741**	0.712**
Development and Training Need	0.710**	0.687**	0.748**	0.708**
Equipment and Facilities	0.736**	0.725**	0.784**	0.727**
Financial Resources and Capabilities	0.648**	0.671**	0.669**	0.664**

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

All correlations are significant and statistically positive, predominantly at the 0.01 level, demonstrating solid, consistent correlations. Enabling Environment correlation is between 0.540 and 0.736, Strongest correlations are with, Equipment and Facilities ($r = 0.736^{**}$), Communication Network ($r = 0.727^{**}$), Development and Training Need and Manpower Development ($r = 0.710^{**}$). This implies that well-funded schools with well-developed communication and training systems are more likely to adhere to larger policy frameworks, such as governance, legislation, and institutional support systems. Safe Learning Facilities correlations vary between 0.490 and 0.725, slightly less than other areas, but nonetheless statistically significant. Most significant connections, Equipment and Facilities ($r = 0.725^{**}$), Manpower Development ($r = 0.691^{**}$), Communication Network ($r = 0.696^{**}$). Presents that physical and human resources, as well as communications, are responsible for executing policies for safe infrastructure. Schools with them in place more adhere to safety standards and structural readiness requirements.

Risk Reduction Management this area provides the strongest overall correlations, ranging from 0.649 to 0.784. Strongest correlation which is Facilities and Equipment ($r = 0.784^{**}$), closely followed by Emergency Management Procedures ($r = 0.755^{**}$), Communication Network ($r = 0.748^{**}$), and Training Requirement ($r = 0.748^{**}$). These findings indicate that schools need strong competence in facilities, planning, communication, and preparedness procedures to achieve DRR management policy compliance. Risk Reduction in Education correlations are between 0.558 and 0.727. Highest correlations outcomes Equipment and Facilities ($r = 0.727^{**}$), Manpower Development and Communication Network ($r = 0.712^{**}$). This indicates that the educational components of DRR policy are maximally facilitated by schools that have trained human resources, good equipment, and communication network, which help them incorporate DRR principles in the curriculum and school practices. Facilities and Equipment has the strongest and most uniform correlation among all policy categories, especially with Risk Reduction Management ($r = 0.784^{**}$).

This highlights the pivotal function of physical assets and infrastructure in facilitating policy compliance. Communication Network and Manpower Development are also evidenced to consistently provide high correlation across all policy dimensions, confirming that human and communication capacities are equally essential as physical assets. Emergency Management Procedures and School Emergency Action Plans have lower but still significant correlations with Safe Learning Premises and Education, indicating that operational planning enhances compliance, although more so in other areas of DRR management. Financial Resources and Capabilities, although not the strongest, have good and significant correlations across all, supporting that money is an enabling factor to facilitate compliance, particularly for equipment, training, and implementation.

The table well illustrates that improved school capacity significantly contributes to policy adherence in disaster risk reduction. Equipment-related, infrastructure-related, communication-related, training-related, and planning-related capabilities are most materially important across all policy aspects, and most importantly in managing risk reduction. Schools with more capable internal structures, sufficient resources, and trained staff are much more likely to be compliant with policy and enact successful DRR solutions. Hence, institutional capacity building is not merely operationally critical it is a strategic route to full policy observance in the edutc Each cell contains a correlation coefficient, likely indicating the strength of the relationship between the row variable and the compliance dimension. Observations strongest relationships is the Equipment and Facilities shows the highest correlations across all dimensions (up to 0.784 in Risk Reduction Management). Communication Network and Development/Training also consistently score high. Lowest Relationship which is School Emergency Management Plan has the lowest correlations, especially with Safe Learning Facilities (0.49). While overall averages (Bottom Row) the highest average is Risk Reduction Management (0.7263) on the other hand , lowest correlation is Safe Learning Facilities (0.6406) . This suggests that improving infrastructure and communication systems tends to align strongly with policy compliance, especially in Risk Reduction Management. Meanwhile, compliance in Safe Learning Facilities appears less responsive to these capabilities.

Disaster Risk Reduction and Management (DRRM) capabilities and policy compliance stated how well an institution like a school, business, or government agency can prepare for, respond to, and recover from disasters in line with national laws and global frameworks. The results implies that risk reduction management when it comes to compliance and policy compliance have the strongest correlation among variables while on the other hand safe school building have a weaker correlation because respondent have no direct control about the construction of school building because Department of Education and other government infrastructures undergo bidding system wherein the lowest the price wins and it doesn't assured quality and learning facilities.

Based on DepEd Order 37 s 2015, safe learning facilities refers to the physical and other related structures of the schools. It also includes the establishment of temporary learning spaces that can be used during possible displacement brought by disasters and/or emergencies. Here, education authorities, architects, engineers, builders and school community members undertake safe site selection, design, construction, and maintenance of school structures and ensure safe and continuous access to the facilities.

3.Recommendations

In light of the findings and conclusions of the study, the following recommendations are offered. In terms of capacity building and training schools may conduct regular, mandatory DRRM training for all junior high school teachers, including seminars, workshops, and simulation drills. Integration of DRRM modules into professional development programs to strengthen both knowledge and practical skills may be considered. And encourage teacher participation in community-level DRRM activities to foster local collaboration and situational awareness.

Regarding on policy implementation and monitoring schools it is suggested to ensure strict compliance with national and local DRRM policies, such as DepEd Orders and RA 10121, by regularly updating schools on new guidelines. School heads may assign dedicated DRRM coordinators per school and establish clear roles for teachers in emergency response plans and conduct annual internal audits and readiness assessments to monitor compliance and identify gaps in DRRM implementation.

Enhance the resilience of school infrastructure by making sure that buildings adhere to safety regulations, have places set aside for evacuation, and have enough DRRM tools and resources, such as safety signage, emergency kits, first aid supplies, and communication aids. Obtain funds to assist DRRM projects at the school level through collaborations with NGOs or the government.

Organize student-led DRRM initiatives including awareness campaigns, safety clubs, and peer education programs, and integrate DRRM concepts into a variety of topics to encourage a preparation culture among students. Improve coordination with the local governments (LGUs), Barangay DRRM Councils, and non-governmental organizations (NGOs) in terms of offering technical support and sharing of resources. Facilitate combined school-community drills and information campaigns to enhance collective preparedness and resilience. Future researchers may consider analyzing other variables in DRRM readiness and capabilities between school resilience and policy compliance.

Lastly, offer a feedback mechanism wherein teachers can report concerns and suggest improvements in DRRM implementation.

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